CALIFORNIA CODE OF REGULATIONS

Title 20. Public Utilities and Energy

Division 2. State Energy Resources Conservation and Development Commission

CALIFORNIA
ENERGY COMMISSION
Edmund G. Brown Jr., Governor

JANUARY 2019
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CALIFORNIA
ENERGY COMMISSION

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CALIFORNIA CODE OF REGULATIONS

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Division 2. State Energy Resources Conservation and Development Commission

[Current as of January 2019]

Note to Readers

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Division 2.
State Energy Resources
Conservation and Development Commission

Chapter 1. General Provisions

Article 1. Construction of Regulations

§ 1001. Interpretation.

The regulations in this chapter supplement the Warren-Alquist State Energy Resources Conservation and Development Act (Division 15 of the Public Resources Code).

Note: Authority cited: Section 25213, Public Resources Code. Reference: Section 25213, Public Resources Code.

§ 1002. Service on the Commission.

Service of process may be made on the commission by personal service on the chairman, the executive director, or chief counsel, or as otherwise provided by law addressed as follows:

Energy Resources Conservation and Development Commission
1516 Ninth Street
Sacramento, CA 95814
Attn: Chief Counsel

Note: Authority cited: Section 25213, Public Resources Code. Reference: Section 25218(c), Public Resources Code.

§ 1003. Computation of Time.

The time in which any act provided by these regulations is to be done is computed by excluding the first day and including the last, unless the last day is a Saturday, Sunday, holiday or other day when the commission offices are closed, in which case that day is also excluded. Unless otherwise stated, all time periods refer to calendar days.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Sections 10 and 12, Code of Civil Procedure.

Chapter 2. Rules of Practice and Procedure

Article 1. Commission Business Meetings

§ 1101. Scope.

This article applies only to the commission's business meetings conducted under Public Resources Code Section 25214.

Note: Authority cited: Section 25213, Public Resources Code. Reference: Section 25214, Public Resources Code.

§ 1102. Meetings - Scheduling.

(a) The commission shall meet at least once every month.

(b) The time and place of meetings may be set by resolution of the commission, by written petition of a majority of the members, or by written call of the chairman. The chairman may, for good cause, change the starting time or place, reschedule, or cancel any meeting.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25214, Public Resources Code.

§ 1103. Notice and Agenda.

(a) Time and Distribution. Notices shall be given to all members, ex officio members, the public adviser, to all parties to proceedings on the agenda, and to all persons who request in writing such notice.

(b) Agenda. The agenda shall be prepared by the executive director and shall include any item proposed by any member, the public adviser or the executive director.

(c) Emergencies. In all public emergency cases, every member and ex officio member and the public adviser shall be notified in person, by telephone, or by telegram.

Note: Authority cited: Section 25213, Public Resources Code. Reference: Sections 25214 and 25217(a), Public Resources Code; and Section 11125, Government Code.

§ 1104. Meetings.

(a) Presiding Member. The chairman shall preside over all meetings of the commission at which he is present. In his or her absence, the vice chairman shall preside. If neither the chairman nor the vice chairman is in attendance, the member present who has the greatest seniority on the Commission shall preside. The presiding member may yield the chair.

(b) Robert's Rules of Order. Except as otherwise provided by this article and except when all the members present indicate otherwise, meetings of the commission shall be conducted pursuant to the latest edition of Robert's Rules of Order. Failure to comply with this subsection shall not invalidate any action of the commission.

(c) Order of Agenda. The presiding member may determine the order in which agenda items shall be considered.

(d) Consent Calendar. The agenda may include an item designated “the consent calendar.”

(1) The consent calendar shall include only those matters for which there appears to be no controversy. The consent calendar shall contain any such matter specified for inclusion by the person proposing the agenda item. A brief description of each matter on the consent calendar shall be included in the agenda.

(2) At the request of any member, any matter shall be removed from the consent calendar and may be considered at the same meeting as a separate item of business.

(3) After an opportunity for the requests to remove matters from the consent calendar has been given, a vote shall be taken on the consent calendar. If three members vote to approve the consent calendar, each matter on the consent calendar shall be approved and shall have the same force and effect as it would have if approved as a separate agenda item.

(e) Public Comments. Any person may file comments in writing on any agenda item. Unless otherwise directed by the presiding member, all written comments shall be filed at least three days before the commission meeting. Any person present shall be given an opportunity to make oral comments on any agenda item; provided however, that the presiding member~~s~~ may limit or preclude such comments as necessary for the orderly conduct of business.

(f) The procedures governing motion filing by parties in proceedings before the commission can be found in section 1211.5 of these regulations.

Note: Authority cited: Section 25218, Public Resources Code. Reference: Section 25214, Public Resources Code.

§ 1105. Permanent Record.

(a) The commission shall keep minutes of its meetings. Minutes shall be approved by the full commission and, upon approval, shall be signed by the chairman or other person designated by the chairman. Signed minutes shall be the original evidence of actions taken at any meeting, including the text of any resolutions adopted.

(b) Commission public meetings shall be recorded by stenographic reporter or electronic recording or both. The transcripts or recordings shall be kept at least one year and shall be available to the public for review at the commission's main office and such other offices as the commission may designate.

(c) Any person may photograph or record any public meeting of the commission so long as it does not disrupt the orderly conduct of business.

(d) Any person may petition the commission to correct a transcript of his own statements. Such petition shall be made within sixty days after the transcript has been made available to the public at the commission's main office. The commission shall consider any such petition as an item on the consent calendar pursuant to Section 1104(c) of these regulations.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25214, Public Resources Code.

Article 2. General Provisions Applicable to All Commission Proceedings

§ 1200. Scope.

Except as otherwise specifically indicated, the provisions of this article apply to all proceedings and hearings held before the commission, a committee thereof, an assigned commissioner, or hearing officer.

Note: Authority cited: Sections 25218(e) and 25218(f), Public Resources Code. Reference: Section 25214, Public Resources Code.

§ 1201. Definitions.

The following definitions shall apply unless otherwise indicated:

(a) “Acceptance” means a determination by the commission, pursuant to Public Resources Code, sections 25516.6, 25522, or 25540.1, that a notice of intention or application for certification is complete.

(b) “Adjudicative Proceeding” means an evidentiary process for determination of facts pursuant to which the commission makes findings and issues a decision.

~~(c) "Application" means either an Application for Certification or an application for a Small Power Plant Exemption, unless otherwise indicated.~~

(~~d~~c) "Areas of critical concern" means special or unique habitats or biological communities that need protection from potential adverse effects resulting from project development and which may be identified by local, state, or federal agencies with resource responsibility within the project area, or by educational institutions, museums, biological societies, or special interest groups with specific knowledge of resources within the project area. This category includes, but is not limited to, wildlife refuges, wetlands, thermal springs, endangered species habitats, and areas recognized by the California Natural Area Coordinating Council and the Governor's Office of Planning and Research.

(~~e~~d) "CEQA" means the California Environmental Quality Act of 1970 commencing with Section 21000 of the Public Resources Code.

(~~f~~e) “Comment” means any oral or written statement made by any person, not under oath, in any proceeding before the commission.

(~~g~~f) “Docket Unit” means the office of the commission that receives, distributes, serves and stores all filed documents.

(~~h~~g) "Environmental documents" means draft environmental impact reports (draft EIR), final environmental impact reports (final EIR), initial studies, negative declarations, notices of preparation, notices of determination, notices of exemption and statements of findings and

overriding considerations, and the documentation prepared by the commission or its staff for a certified regulatory program in compliance with Section 21080.5 of the Public Resources Code.

(~~i~~h) "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

(~~j~~i) “Hearing officer” means any person designated pursuant to Section 1205 of these regulations to assist the presiding member in conducting a proceeding.

(~~k~~j) “Intervenor” means any person who has been granted leave to intervene in an adjudicative proceeding, pursuant to these regulations.

(~~l~~k) "Local agency" means any local or regional governmental authority within the state, including but not limited to, any city, county, air pollution control or air quality management district.

(~~m~~l) "MCE" means Maximum Credible Earthquake as defined by the United States Geological Survey.

(~~n~~m) "MPE" means Maximum Probable Earthquake as defined by the United States Geological Survey.

(~~o~~n) “Party”, applicable only in adjudicative proceedings, means any applicant, respondent, or intervenor, and depending on its role in the proceeding, the staff of the commission.

(~~p~~o) "Performance criteria" means performance goals for which the applicant proposes to design the facilities.

(~~q~~p) “Presiding member” means the chair of the commission or any member of the commission designated to preside over any proceeding.

(~~r~~q) "Related facility" means a thermal powerplant, electric transmission line, or any equipment, structure, or accessory dedicated to and essential to the operation of the thermal powerplant or electric transmission line. These facilities include, but are not limited to, transmission and fuel lines up to the first point of interconnection, water intake and discharge structures and equipment, access roads, storage sites, switchyards, and waste disposal sites. Exploratory, development, and production wells, resource conveyance lines, and other related equipment used in conjunction with a geothermal exploratory project or geothermal field development project, and, absent unusual and compelling circumstances, the thermal host of a cogeneration facility, are not related facilities.

(~~s~~r) “Respondent” means any person named in a complaint, pursuant to Section 1233 of these regulations, and alleged to be in violation of any regulation, order, decision, or statute adopted, administered, or enforced by the commission.

(~~t~~s) “Service list” means a list, created for each adjudicative proceeding, that includes all parties, all interested agencies, the presiding member, associate member, the hearing officer, the relevant staff of the commission (if not already a party) and other persons as deemed necessary by the presiding member.

(~~u~~t) "Species of special concern" means candidate rare, threatened, or endangered species that may need protection from potential adverse effects resulting from project development and which may be identified by local, state, or federal agencies with resource responsibility within the project area or by educational institutions, museums, biological societies, and special interest groups with specific knowledge of resources within the project area. In addition to species designated pursuant to state or federal law, this category includes, but is not limited to, those rare and endangered plant species recognized by the Smithsonian Institution or the California Native Plant Society.

(~~v~~u) “Staff” means the staff of the commission.

(~~w~~v) “Testimony” means any oral or written statement made under oath in any proceeding before the commission.

(~~x~~w) “Witness” means any person who offers testimony in any proceeding before the commission.

Note: Authority cited: Sections 25213, 25218(e), 25541.5, Public Resources Code. Reference: Sections 21061.1, 25214, 25502, 25519, 25540, 25540.1, 25540.2, and 25541.5, Public Resources Code~~; and Title 14, California Code of Regulations, Section 15364~~.

§ 1202. Right of Any Person to Comment.

(a) Any person or interested agency present shall be given an opportunity to make oral comments on the subject matter of a proceeding; provided, however, that the presiding member may limit such comments as necessary for the orderly conduct of business.

(b) Any person or interested agency may submit written comments to the commission by following the procedure set forth in section 1208.

Note: Authority cited: Section 25213, Public Resources Code. Reference: Section 25214, Public Resources Code.

§ 1203. Authority of the Chair to Manage Proceedings.

In addition to all other powers conferred by this article, the chair or presiding member designated pursuant to Section 1204, shall have the power to:

(a) Request and secure information as is relevant, or reasonably calculated to lead to discovery of relevant information, in carrying out the purposes of the proceeding.

(b) Issue subpoenas and subpoenas duces tecum at the direction of the commission, on their own motion or upon application of any party. The application of a party shall be supported by a declaration of good cause.

(c) Regulate the conduct of the proceedings and hearings, including, but not limited to, disposing of procedural requests, ordering the consolidation or severance of any part, or all, of any proceeding or hearing, admitting or excluding evidence, designating the subject matter, scope, time of presentation, and order of appearance of persons making oral comments or testimony, accepting stipulations of law or fact, and continuing the hearings.

(d) Set the time and place of hearings.

(e) Cancel a scheduled hearing or meeting. To the extent feasible, notice shall be given of any cancellation, and the staff, in consultation with the public adviser, shall inform known interested participants by the most expeditious means possible.

(f) For good cause shown, shorten or lengthen the time required for compliance with any provision of these regulations.

Note: Authority cited: Sections 25213 and 25539, Public Resources Code. Reference: Section 25210, Public Resources Code.

§ 1204. Designation of Committees and Presiding Member; Quorum.

(a) Committees shall be designated in accordance with Public Resources Code Section 25211.

(b) A quorum of a committee is one member.

(c) The commission may at any time withdraw any matter from a committee to allow consideration of the matter by the full commission. The committee may at any time refer a matter directly to the full commission.

(d) If a presiding member is unavailable during any portion of the proceedings, the presiding member may delegate the presiding member's responsibilities to the second member of the committee.

Note: Authority cited: Section 25213, Public Resources Code. Reference: Section 25211, Public Resources Code.

§ 1205. Designation of Hearing Officer; Responsibilities.

The chair may designate a hearing officer to assist a committee in the conduct of any proceeding held pursuant to this Division.

The chair may authorize a hearing officer to preside over proceedings held pursuant to this Division, except for site certification proceedings pursuant to Chapter 5, Articles 1 through 5 of these regulations, Integrated Energy Policy Report proceedings, and rulemaking proceedings. In site certification proceedings pursuant to Chapter 5, Articles 1 through 5 of these regulations, a hearing officer may take evidence in the temporary absence of a commission member as provided in Public Resources Code section 25211.

Note: Authority cited: Section 25213, Public Resources Code. Reference: Sections 25211 and 25217, Public Resources Code.

§ 1206. Representatives.

Any person may designate any other person, to represent him or her for any purpose.

Note: Authority cited: Section 25213, Public Resources Code. Reference: Section 25205(d), Public Resources Code.

§ 1207. Conferences; Purpose; Notice.

The presiding member, or hearing officer, if there is one, may at any time hold a public conference with the parties, the public adviser, the chief counsel, interested agencies and any other persons interested in the proceeding, for the purpose of formulating the issues, organizing the presentations and questioning of witnesses, determining the number of witnesses, providing for the exchange of information and comments, and any other matters as may expedite the orderly conduct of the proceedings. The public adviser may, upon request, present the views submitted by persons interested in the proceeding who are unable to attend. The conference shall be publicly noticed as required under section 1209.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25214, Public Resources Code.

§ 1207.5. Staff Meetings; Purposes.

(a) At any time, staff may initiate voluntary meetings with the applicant, other parties, interested agencies, stakeholders, or the public on matters relevant to a proceeding. Such meetings may include workshops, site visits, or other information exchanges.

(b) Public meetings shall be noticed pursuant to Section 1209 of these regulations. The notice shall list the topics and purposes of the meetings.

Note: Authority cited: Sections 25218(e) and 25541.5, Public Resources Code. Reference: Sections 25210 and 25216.5, Public Resources Code.

§ 1208. Filing of Documents.

(a) All documents submitted in any proceeding, whether by a party, committee, the commission, or any other individual or entity, shall be filed with the Docket Unit. Filing is complete when a document has been accepted by dockets staff or by the commission's automated electronic filing or commenting system. Documents that are not filed will not be deemed part of a proceeding's record.

(b) A document will be accepted as of the day of its receipt by the Docket Unit or by the automated electronic filing or commenting system, except that:

(1) The Docket Unit may reject for filing any document that does not substantially comply with the requirements of section 1208.1, or is found to be infected with a computer virus or otherwise electronically corrupted.

(2) Documents filed after 5:00 p.m. on a business day, or at any time on a Saturday, Sunday, or holiday, or other day when the commission is closed, shall be deemed filed the next business day.

(3) Documents submitted to the presiding member during a public hearing will be accepted as of the date received, or as otherwise ordered by the presiding member.

(c) The responsibility to ensure that a document has been timely filed rests with the person, party, or entity that desires the document to be filed.

(1) For adjudicatory proceedings where service of documents is required the docket unit will provide service to all parties consistent with the process described in section 1211.

Note: Authority cited: Sections 25216.5(a) and 25218(e), Public Resources Code. Reference: Section 25210 and 25223, Public Resources Code, Section 11020 Government Code; and Section 10 Code of Civil Procedure.

§ 1208.1. Media, Format, Content, and Other Required Characteristics of Filed Documents; Electronic Signatures, Changes in the Requirements by the Executive Director.

(a) Every document filed with the commission shall comply with this section. Filers must ensure the content, quality, and format of their documents meets applicable requirements. The commission is not responsible for the content, quality or formatting of filed documents.

(b) Electronic documents shall be word searchable, if feasible, and shall be filed on the following electronic media and in the following format:

(1) DVD, CD-ROM, USB flash drive, SD card, or internet e-mail attachment, e-filing web portal when available, electronic transfer; and

(2) Portable Document Format (pdf), Excel spreadsheets for data or other format supported by the commission information technology systems.

(c) Paper documents shall be:

(1) typewritten or otherwise mechanically printed or legibly handwritten;

(2) on paper 11 inches high and 8 ½ inches wide, for text;

(3) printable at no larger than 17 inches wide and 11 inches high, and folded to 11 inches high and 8 ½ inches wide, for drawings, photographs, maps, diagrams, charts, graphs, and similar material;

(4) printed on both sides of the page if feasible; and

(5) bound securely.

(d) All documents shall:

(1) be in a clear, easily readable font of at least 12 points;

(2) have consecutively-numbered pages; and

(3) on the first page include the following information:

(A) Name of the proceeding

(B) Docket number of proceeding

(C) Title of the document

(D) Name, address, telephone number and email address of the filer.

(e) Except as otherwise required by the executive director or the presiding member of a proceeding, signatures maybe electronic.

(1) For electronic filings containing a signature, including for submissions into electronic data bases requiring a signature as attestation of information, the signature may be in electronic form and represented as a scanned signature graphic, a typed in name or by "Original Signed By", "/S/", or similar notation.

(2) In a proceeding, if an electronic copy of an originally signed hardcopy is filed, the filer must retain the document containing the original signature, and produce it at the presiding member's request, until the commission's final decision in the proceeding is no longer subject to judicial review.

(f) The executive director may, after consultation with the public adviser, add to, eliminate, or modify any of the protocols in subdivisions (b), (c), (d) and (e) of this section. The protocols established by the executive director may vary among types of proceedings, or among individual proceedings, and they shall reasonably balance the need for accuracy and security of documents, the efficiency with which documents may be retrieved, read, and used, the capacity of the commission's computer systems, technological developments, and cost and ease of use. When protocols are established, the executive director shall post them prominently on the commission's website and on the webpages of all applicable commission proceedings.

(g) Non-confidential documents filed are part of the viewable public record and may become available via internet search engines.

Note: Authority cited: Sections 25216.5(a) and 25218(e), Public Resources Code. Reference: Section 25223, Public Resources Code.

§ 1209. Notice of Public Events.

(a) Unless otherwise required by law or directed by the presiding member, all public events, such as workshops and hearings, in all proceedings shall be noticed at least 10 days before the event. Notice consists of sending the notice electronically to all persons on the appropriate commission listserv and applicable proceeding's service list.

(b) In addition, when the presiding member, the public adviser, or the executive director believes that a significant number of members of an affected community lack internet access or are otherwise unlikely to be exposed to notice provided under subdivision (a), the presiding member may order other methods of notice to be used, such as first class mail.

(c) The public adviser shall be consulted on the scheduling, location, and noticing of all commission public events, so as to promote full and adequate public participation.

(d) Publicly noticed hearings, presentations, conferences, meetings, workshops, and site visits may be continued from the date, time, and place originally scheduled to a future date, time, and place by posting notice at the door in the same manner as provided by Government Code section 11129. If the continuance is to a date ten days or more in the future, then notice shall also be provided as set forth in subdivision (a) and, if applicable, any additional methods of notice ordered pursuant to subdivision (b).

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25214, Public Resources Code; and Section 11104.5, Government Code.

Article 3. General Provisions Applicable to Adjudicative Proceedings

§ 1210. Adjudicative Procedures.

Except as otherwise specified in these regulations or by other applicable law, in an adjudicative proceeding the presiding member may regulate the proceedings, and any parts thereof, in any manner that complies with the Administrative Adjudication Bill of Rights in section 11425.10 of the Government Code. A proceeding, or any portion of one, may include (1) formal hearings with features such as lay and expert witnesses providing oral and written testimony under oath, direct examination, cross examination and briefs. Such requirements shall not preclude unsworn oral or written comments from being offered in the proceeding; or (2) if noticed under Title 2 of the Government Code section 11445.30(a), the informal hearing procedures described in the Administrative Procedure Act (see Government Code section 11454.10 & following).

Note: Authority cited: Sections 25210, 25216.5(a) and 25218(e), Public Resources Code. Reference: Sections 11445.10 and 11455.60, Government Code; and Sections 25213(a) and 25214, Public Resources Code.

§ 1211. Service of Documents.

(a) In each adjudicative proceeding, the commission shall create and maintain a service list and post the service list on the proceeding's website. By providing an email address for the service list, a person consents to email service of notices and of documents, decisions or orders or links to such materials.

(b) Unless otherwise ordered by the presiding member or otherwise required by law, the Docket Unit shall serve all filed documents on all persons on the service list, by:

(1) having the document electronically posted on the proceeding's website; and

(2) having electronic notice of the availability of the document provided to all persons on the service list.

(c) Any person on the service list may request permanent service of all documents in paper form. The presiding member may order such service only upon a showing that the person does not have reasonably efficient and economic access to equipment that would allow the person to receive electronic notice of availability of the document, and to view it on the proceeding's website. If such service is ordered, any person filing a document shall serve a paper copy on all persons designated for paper service no later than the filing of the document and shall include proof of such service with the filed document.

(d) The date of service of a document is the date of its electronic posting on the proceeding's website, whether or not a person receives service of the document in paper form.

Note: Authority cited: Sections 25216.5(a) and 25218(e), Public Resources Code. Reference: Section 25210 and 25223, Public Resources Code.

§ 1211.5. Motions.

(a) Any party may request the presiding member ~~or, where applicable, the commission,~~ to issue orders or rulings, including but not limited to requests to require another person to act or to refrain from acting, or requests for adjudication of procedural or substantive issues. ~~All such requests shall, e~~Except as provided by subdivision (c) ~~otherwise required by these regulations~~ or otherwise allowed by the presiding member, all such requests shall be in the form of a written motion. Motions shall be filed and responded to according to a schedule established by the presiding member. In the absence of such a schedule, responses to motions shall be filed within 14 days of the service of the motions. Unless otherwise ordered by the presiding member, there shall be no replies to responses. The presiding member shall rule on the motion within 30~~21~~ days of its filing, or a later deadline established by the presiding member; if the presiding member does not rule within 30 days of the motion's filing, or the time prescribed, the motion is deemed denied.

(b) For a hearing noticed to take place at a meeting of the Energy Commission noticed pursuant to section 1103, written motions must be filed five days prior to the meeting date, unless otherwise provided by the presiding member.

(~~b~~c) Requests for action made during any hearing may be made orally to the presiding member and need not be in the form of a written motion. Rulings by the presiding member may be made orally. If the presiding member does not make a ruling on the motion by the end of the hearing, the motion is deemed denied.

~~(c) A party to a proceeding, currently before the commission for consideration and identified on the commission's agenda, must file any related motion, requiring the commission to take some action, five days prior to the meeting date. Consideration of the motion is at the discretion of the presiding member.~~

Note: Authority cited: Sections 25210, 25216.5(a) and 25218(e), Public Resources Code. Reference: Sections 25213(a) and 25214, Public Resources Code.

§ 1211.7. Intervenors.

(a) Subject to the provisions of specific proceedings, any person may file a petition to intervene. The petition shall set forth the grounds for the intervention, the position and interest of the petitioner in the proceeding, the extent to which the petitioner desires to participate in the proceedings, and the name, mailing address, e-mail address, and telephone number of the petitioner.

(b) A petition for intervention shall be filed no later than the deadline established by the presiding member, or if none is established, at least 30 days before the first evidentiary hearing in the proceeding. If the time period between notice of the first evidentiary hearing and the hearing is less than 30 days, the notice shall ~~contain~~ set a ~~the~~ deadline for intervention of at least 10 days from the date of the notice.

(c) The presiding member may grant intervention and may impose reasonable conditions on an intervenor's participation, including, but not limited to, ordering intervenors with substantially similar interests to consolidate their participation or limiting an intervenor's participation to specific topics. An intervenor is a party to a proceeding.

(d) The presiding member may grant late petitions only on a showing of good cause by the petitioner. No person who becomes a party shall be permitted to reopen matters or reopen discovery dealt with in the proceeding prior to the time when such person became a party, without an order from the presiding member based upon a showing of good cause.

(e) Any ruling on a petition to intervene may be appealed by the petitioner to the ~~full~~ commission within 10 days of the ruling. Failure to file a timely appeal will result in the presiding member's ~~denial~~ ruling becoming the final action on the matter.

(f) Any petitioner may withdraw from any proceeding by filing a notice to such effect.

Note: Authority cited: Section 25213, Public Resources Code. Reference: Section 25214, Public Resources Code.

§ 1212. Rights of Parties, Record and Basis for Decision.

(a) Rights of Parties. Subject to the presiding member's authority to regulate a proceeding as prescribed in section 1210, and other rights identified in specific proceedings, each party shall have the right to call and examine witnesses, to offer oral and written testimony under oath, to introduce exhibits, to cross-examine opposing witnesses on any matters relevant to the issues in the proceeding, and to rebut evidence**.**

(b) Hearing Record.

(1) The "hearing record", in an adjudicatory proceeding, ~~is all of the information the commission may consider in reaching a decision. The hearing record~~ shall contain:

(A) all documents, ~~filed comments,~~ materials, ~~oral statements,~~ or testimony received into evidence by the committee or commission at a hearing;

(B) public comment, including comments from other government agencies, offered orally at a hearing, or written comments received into the record at a hearing;

(C) any materials or facts officially noticed by the committee or commission at a hearing; ~~and~~

(D) all transcripts of evidentiary hearings; and

(~~D~~ E) for siting cases, subject to 1212(b)(3), staff's Final Staff Assessment and any timely filed supplemental assessments.

(2) Parties may move to exclude information from the hearing record ~~consideration by the commission~~ on the ground that it is not relevant, is duplicative of information already in the record, or on another basis. If the presiding member grants such a motion, the information shall be excluded from the hearing record. While the hearing need not be conducted according to technical rules relating to evidence and witnesses, questions of relevance and the inclusion of information into the hearing record shall be decided by the presiding member after considering fairness to the parties, hearing efficiency, and adequacy of the record.

(3) In a siting case, if a party requests a staff witness be present to sponsor specific portions of the Final Staff Assessment, or any supplemental assessments, and no witness is made available for questioning, the relevant portions of the staff assessment or supplemental assessments at issue shall be treated as comment and shall not be sufficient, in and of itself, to support a finding by the commission.

(c) Basis for and Contents of Decisions**.**

1) Decisions in adjudicative proceedings shall be based on the evidence in the hearing record, explain the basis for the decision, and shall include but need not be limited to all legally-required findings of fact and conclusions of law.

2) A finding may be based on any evidence in the hearing record, if the evidence is the sort of information on which responsible persons are accustomed to relying on in the conduct of serious affairs. Such evidence does not include, among other things, speculation, argument, conjecture, and unsupported conclusions or opinions. ~~The committee or commission may rely on public comment, standing alone, to support a finding if the committee or commission provides notice of its intent to rely upon such comment at the time the comment is presented, other parties are provided an opportunity to question the commenter, and parties are given a reasonable opportunity, as ordered by the presiding member, to provide rebuttal evidence.~~ The committee or commission shall give appropriate weight to information in the record as allowed by law.

3) Hearsay evidence may be used for the purpose of supplementing or explaining other evidence but shall not be sufficient in itself to support a finding unless it would be admissible over objections in civil actions.

4) Public comments and briefs filed by parties in an adjudicative proceeding, as prescribed in section 1208, may be considered by the committee or commission, but shall not be sufficient in themselves to support a finding. The committee or commission may rely on public comment, standing alone, to support a finding if the committee or commission provides notice of its intent to rely upon such comment at the time the comment is presented, other parties are provided an opportunity to question the commenter, and parties are given a reasonable opportunity, as ordered by the presiding member, to provide rebuttal evidence.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25210, Public Resources Code: and Section 11513, Government Code.

§ 1215. Interlocutory Orders and Appeals.

(a) During proceedings before a committee, a party may request that a ruling of the committee or presiding member be issued in the form of a written order. Any such request shall be made no later than five calendar days following the ruling.

(b) Any party may petition the full commission to review any order prepared pursuant to subsection (a) of this section. Any such petition shall be filed within ten days of the date of the order being issued; provided, however, that rulings of the presiding member or committee may not be appealed during the course of hearings or conferences except in extraordinary circumstances where prompt decision by the commission is necessary to prevent detriment to the public interest. In such instances, the matter shall be referred forthwith by the presiding member to the commission for determination.

(c) Unless the commission acts upon questions referred by the presiding member to the commission or upon a petition to review an order of the presiding member or committee within thirty (30) days after the referral or filing of the petition, whichever is later, such referrals or petitions shall be deemed to have been denied. The commission may act by formally denying the petition or by vacating or amending the committee order.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25210, Public Resources Code.

§ 1216. Ex Parte Contacts.

(a) The ex parte provisions of Article 7 of Chapter 4.5 of Part 1 of Division 3 of Title 2 of the Government Code (sections 11430.10 et seq.) apply to all adjudicative proceedings conducted by the commission. For purposes of this section "presiding officer" means all commissioners and all hearing advisors.

(b) An adviser to a commissioner or any other member of a commissioner's own staff shall not be used in any manner that would circumvent the purposes and intent of this section.

Note: Authority cited: Section 25213, Public Resources Code. Reference: Sections 11430.10-11430.80, Government Code; and Section 25210, Public Resources Code.

Article 4. Rulemaking and Informational Hearings

§ 1220. Scope.

(a) "Rulemaking proceedings" shall include any hearings designed for the adoption, amendment, or repeal of any rule, regulation, or standard of general application, which implements, interprets or makes specific any provision of Division 15 of the Public Resources Code or any other statute enforced or administered by the commission.

(b) "Informational proceedings" shall include any hearings designed to gather and assess information to assist the commission in formulating policies; informing the public of commission actions; or obtaining public comment and opinion.

Note: Authority cited: Section 25213, Public Resources Code. Reference: Section 25210, Public Resources Code.

§ 1221. Petitions.

(a) Any person may petition the commission to request rulemaking hearings. Such petition shall include:

(1) the name, address, and telephone number of the petitioner;

(2) the substance or nature of the regulation, amendment, or repeal requested;

(3) the reasons for the request;

(4) reference to the authority of the commission to take the action requested.

(b) Such petition shall be filed with the executive director who shall within seven (7) days after its filing determine whether the petition contains the information specified in subsection (a).

(1) If the executive director determines that the petition is complete, he or she shall so certify in writing and shall inform the petitioner.

(2) If the executive director determines that the petition is not complete, it shall be returned to the petitioner accompanied by a statement of its defects. The petitioner may correct the petition and resubmit it at any time.

(c) Upon certification by the executive director, the commission shall, within thirty (30) days from the filing of the petition, deny the petition, stating the reason for the denial in writing, or grant the petition, directing the staff to prepare an appropriate order pursuant to section 1222 of these regulations.

(d) Nothing in this section shall operate to limit the opportunity of any member of the public to be heard at commission meetings and hearings, as provided by section 25214 of the Public Resources Code.

Note: Authority cited: Section 25213, Public Resources Code. Reference: Sections 11347 and 11347.1, Government Code.

§ 1222. Commission Orders.

(a) The commission may, upon its own motion or upon granting a petition filed pursuant to section 1221 of these regulations, adopt an order to institute a rulemaking proceeding in accordance with the procedures of Sections 11346.4, 11346.5 11346.7, and 11346.8 of the Government Code.

(b) The commission may, upon its own motion, adopt an order to institute an informational proceeding. The order shall include:

(1) the date of the first hearing;

(2) a statement indicating whether the commission or a committee thereof will hold additional hearings on the matter;

(3) a statement of the authority pursuant to which the hearing is ordered, and a reference to any code sections or other provisions of law pursuant to which the information is to be gathered or disseminated;

(4) a statement of the nature and purpose of the proceedings;

(5) a statement requiring the presence and participation of such persons as the commission may direct, consistent with the nature and purpose of the proceedings.

(c) In addition to the requirements of subsections (a) and (b) of this section, every order instituting hearings pursuant to this section shall contain:

(1) a statement informing members of the public of the function and availability of the public adviser;

(2) a statement indicating the time during which written comments will be received, and the manner by which such comments shall be filed;

(3) a statement that any person may make oral comments on the subject of the proceeding;

(4) a statement setting forth additional procedures deemed necessary by the commission and not inconsistent with these regulations. Such procedures may include one or more provisions contained in section 1212 of these regulations.

Note: Authority cited: Section 25213, Public Resources Code. Reference: Sections 25210 and 25214, Public Resources Code.

§ 1223. Notice.

(a) Notice of a rulemaking proceeding shall be given in accordance with Government Code Section 11346.4.

(b) At least fourteen (14) days prior to the first hearing in an informational proceeding ordered pursuant to Section 1222(b), the executive director shall cause notice of the hearing to be mailed to every person who requested such notice in writing, to every person requested to participate in such proceedings, and to any person who the executive director, in conjunction with the public adviser, determines to be concerned with the subject matter of the proceeding.

(c) In addition to the requirements of subsections (a) and (b) of this section, notice of additional hearings shall be required at least ten (10) days prior to the commencement of such hearings.

(d) Nothing in this section shall preclude the commission from publishing notice in such additional forms or media as the executive director, in conjunction with the public adviser, may prescribe.

(e) A copy of the order adopted pursuant to Section 1222 of these regulations shall accompany the initial notice prepared and mailed pursuant to this section, unless a copy of the order has been previously mailed to those persons who would receive such notice.

Note: Authority cited: Section 25213, Public Resources Code. Reference: Section 25210, Public Resources Code.

§ 1224. Use of Testimony.

(a) The commission, or a committee thereof, may require by order instituting hearings, prehearing conference order, or other proper notice that evidence on specified issues of fact or matters of technical expertise be presented as sworn testimony. Such requirements shall not preclude unsworn oral or written comments from being offered in the proceeding.

(b) The presiding member may require that prepared written testimony or other evidence be submitted in advance of any hearing, for the purpose of facilitating the orderly consideration of issues at the hearing.

Note: Authority cited: Section 25213, Public Resources Code. Reference: Section 25211, Public Resources Code.

§ 1225. Questioning.

(a) Questions from commissioners or staff are in order at any time. At the close of an oral statement, the presiding member may allow other persons to question a witness or person presenting a statement.

(b) The presiding member may limit the time and scope of questioning.

Note: Authority cited: Section 25213, Public Resources Code. Reference: Section 25214, Public Resources Code.

Article 5. Request for Investigations and Complaints

§ 1230. Investigation Scope.

The investigation process provides a means for the public to inform the commission of alleged violations of laws under the jurisdiction of the commission. Section 1230 and the following provisions are not intended to replace the public's ability to informally contact the Energy Commission for resolution of concerns and information about issues.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Section 11180, Government Code; and Sections 25210, 25321, 25362, 25900, 25967 and 25983, Public Resources Code.

§ 1231. Request for Investigation; Filing with the Commission.

Any person may allege, in writing, a violation of a statute, regulation, order, program, or decision adopted, administered, or enforced by the commission. For a request to be acted on by the commission it must be submitted to the executive director, and include:

(a) the name, address, email and telephone number of the person filing the request;

(b) identifying information such as the name, address, email and telephone number of the person or entity allegedly violating the statute, regulation, order, program, or decision;

(c) a statement of the facts upon which the request is based and any evidence and witness statements demonstrating the existence of those facts;

(d) a statement indicating the statute, regulation, order, program, or decision that has been violated; ~~and~~

(e) the names and addresses of any other individuals, entities, or organizations that are or are likely to have been affected by the violations~~.~~; and

(f) a statement indicating if the person or entity requesting the investigation has attempted to resolve the issue with the person or entity alleged to have committed the violation.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Section 11180, Government Code; and Sections 25210, 25321, 25362, 25900, 25967 and 25983, Public Resources Code.

§ 1232. Request for Investigation; Commission Response.

(a) The executive director, in consultation with the chief counsel, shall direct staff to perform an evaluation of the request. Within 30 days of ~~filing~~ receipt of a complete request, the executive director shall provide a written response identifying the action the executive director intends to take and the basis for that action. Such action may include, but is not limited to:

(1) ~~dismissing the request for lack of jurisdiction or insufficient evidence;~~ determining that there has been no violation of a statute, regulation, order, program or decision adopted, administered or enforced by the commission, or that the action sought in the request for investigation cannot be taken;

(2) initiating a complaint pursuant to section 1233 et seq.;

(3) conducting further investigation;

(4) sending a warning or cease and desist letter;

(5) proposing a settlement;

(6) referring the matter to the Attorney General's office;

(7) referring the matter to another federal, state or local agency with jurisdiction over the violation; or

(8) correcting or modifying prior staff action.~~; or~~

~~(9) taking other appropriate action, including rejecting the request for being incomplete.~~

(b) The written response of the executive director and any final action summaries closing the matter shall be filed and sent to the person or entity that submitted the request.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Section 11180, Government Code; and Sections 25210, 25321, 25362, 25900, 25967 and 25983, Public Resources Code.

§ 1232.5. Request for Investigation; ~~Appeal~~ Review by the Chair.

(a) If the executive director makes a determination under section 1232(a)(1), ~~dismisses a request for lack of jurisdiction or insufficient evidence,~~ the requester may ~~appeal the dismissal to the chair~~ request that the chair review the executive director's determination. The request shall be made in writing and filed in accordance with section 1208 within 15 days of the date of the filing of the executive director's response~~. The appeal must be in writing, filed in accordance with section 1208,~~ and must state the basis for ~~challenging~~ requesting review of the executive director's determination ~~dismissal~~.

(b) The chair, within 45 days of ~~the filing of the appeal~~ receiving a request for review, shall issue a written ~~order~~ decision affirming or modifying the executive director's determination. The chair may also ~~sustaining the determination, modifying it, overturning it, or referring~~ refer the matter to a committee or the ~~full~~ commission for further evaluation. If the chair does not issue a written decision within 45 days, the request for review shall be deemed denied.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Section 11180, Government Code; and Sections 25210, 25321, 25362, 25900, 25967 and 25983, Public Resources Code.

§ 1233. Complaint; Scope.

The complaint process identified in this Article is general in nature and may be modified or supplemented by requirements in other regulations applicable to specific types of violations. The complaint process describes how the executive director brings an action against any person or entity for violation of a statute, regulation, order, program, condition or decision within the jurisdiction of the commission.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Section 11180, Government Code; and Sections 25210, 25321, 25362, 25900, 25967 and 25983, Public Resources Code.

§ 1233.1. Complaint; Service.

(a) The executive director ~~of the commission may serve a complaint on~~ may bring a complaint against any person or entity, alleging a violation of any statute, regulation, order, program, or decision adopted, administered, or enforced by the commission.

(b) The complaint shall be signed by the executive director or the executive director's chief deputy, and shall include:

(1) a statement of the facts upon which the complaint is based and any evidence to support the complaint;

(2) a statement indicating the statute, regulation, order, condition or decision upon which the complaint is based;

(3) the action or remedy being sought; and

(4) the authority under which the commission may take the action requested.

~~(b) The complaint shall be served on the respondent by personal service or certified mail, and shall inform the respondent that a hearing before the commission will be conducted to adjudicate the complaint. The respondent may waive the right to a hearing, in which case the commission need not conduct a hearing.~~

(c) The complaint shall be delivered to the chair for review in consultation with the chief counsel. If the complaint meets the requirements of subdivision (b), the chair shall cause a docket to be opened, and the complaint to be filed as specified in section 1208 and served on the respondent by personal service or certified mail. The respondent shall be informed that a hearing before the commission will be conducted to adjudicate the complaint unless the respondent waives the right to a hearing.

~~(c) Any person or entity may provide oral and written comments in the proceeding, pursuant to a schedule adopted by the presiding member, but, unless otherwise allowed by the presiding member, shall not be entitled to intervene or otherwise become a party to the proceeding.~~

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Section 11180, Government Code; and Sections 25210, 25321, 25362, 25900, 25967 and 25983, Public Resources Code.

§ 1233.2. Complaint; Answer.

~~(a)~~ The respondent shall file an answer to the complaint within ~~30~~ 45 days after service of the complaint. The answer shall include any information the respondent believes addresses the issues and violations alleged in the complaint.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Section 11180, Government Code; and Sections 25210, 25321, 25362, 25900, 25967 and 25983, Public Resources Code.

§ 1233.3. Complaint; Adjudication and Hearing.

(a) No sooner than 30 days after filing the answer under section 1233.2, t~~T~~he chair ~~presiding member~~ shall schedule the complaint to be considered at a hearing, as set forth in Chapter 2 of Article 1 of Title 20. ~~on the complaint to commence no sooner than 30 days after filing the answer under section 1233.2, unless the respondent has waived its right to a hearing.~~ For complaints seeking civil penalties under Public Resources Code section 25534.1, a hearing before the commission will be conducted within 60 days after service on the respondent.

(b) At the hearing, the commission may take any action under its authority including, but not limited to, dismissing the complaint, ruling on the complaint, establishing a committee to further investigate, or scheduling additional hearings.

(~~b~~c) If a committee is established or if future hearings are scheduled, ~~A~~a hearing order~~, served on the respondent and all interested persons,~~ shall be filed by the presiding member ~~issued~~ identifying information regarding the proceeding including, but not limited to, the schedule for hearings, whether the hearings will be before a hearing officer, committee or the ~~full~~ commission, whether provisions of Government Code s~~S~~ection 11400 et seq. are applicable to the proceeding, information required from the parties, ~~the role of commission staff in the proceeding~~ and other relevant information ~~about the hearing~~.

(d) Any person or entity may provide oral and written comments in the proceeding, pursuant to a schedule adopted by the presiding member, but, unless otherwise allowed by the presiding member, shall not be entitled to intervene or otherwise become a party to the proceeding.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Section 11180, Government Code; and Sections 25210, 25321, 25534.1, 25362, 25900, 25967 and 25983, Public Resources Code.

§ 1233.4. Complaint; Decision.

(a) If the matter is heard before an assigned committee or hearing officer, the committee or hearing officer shall submit a written proposed decision containing its recommendation to the ~~full~~ commission within ~~21~~45days following the close of hearings.

(b) Upon consideration of a proposed decision from a committee or hearing officer, or in cases where the commission directly hears the case, the commission shall:

(1) issue a decision; or

(2) adopt, modify, or reject the proposed decision; or

(3) remand the matter to the committee or hearing officer for further hearings; or

(4) reopen the hearing record and itself conduct further hearings.

(c) The decision of the commission on a complaint is final.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Section 11180, Government Code; and Sections 25210, 25321, 25362, 25900, 25967 and 25983,Public Resources Code.

§ 1234. Jurisdictional Determinations.

(a) Any person engaged in an activity potentially regulated by the commission may request a jurisdictional determination by the executive director as to whether the commission has regulatory authority over a particular activity. To request a determination, information detailing the facts, issues and law relating to the activity shall be filed with the commission. For issues relating to power plant output, a person seeking a jurisdictional determination may also follow the process under section 2010.

(b) Within 45 days of receiving a complete request, the executive director shall file a written determination as to whether the activity subject to the request is under the jurisdiction of the commission and what actions need to be taken to comply with commission regulations and orders.

(c) Within 10 days of the filing of the executive director's determination, an appeal to the chair may be filed by the person seeking the jurisdictional determination. The appeal shall specify the alleged errors in fact or law that resulted in an incorrect determination.

(d) Within 30 days of the filing of the appeal, the chair shall file a hearing order identifying the schedule for hearings, whether the hearings will be before a hearing officer, committee, or the ~~full~~ commission, whether provisions of Government Code s~~S~~ection 11400 et seq. are applicable to the proceeding, the role of commission staff in the proceeding and other relevant information about the hearing.

(e) Section 1233.4 shall govern the decision of the appeal.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Section 11180, Government Code; and Sections 25210, 25321, 25362, 25900, 25967 and 25983,Public Resources Code.

§ 1240. Renewables Portfolio Standard Enforcement.

(a) Notwithstanding anything in this article to the contrary, the following shall apply to any complaint pertaining to a Renewables Portfolio Standard requirement, or any regulation, order, or decision adopted by the c~~C~~ommission pertaining to the Renewables Portfolio Standard, for local publicly owned electric utilities.

(b) Complaints shall follow the process set forth in section 1233.1.

(1) The e~~E~~xecutive d~~D~~irector may file a complaint against a local publicly owned electric utility for failure to meet a Renewables Portfolio Standard requirement, or any regulation, order, or decision adopted by the c~~C~~ommission pertaining to the Renewables Portfolio Standard for local publicly owned electric utilities.

(2) A complaint for the failure of a local publicly owned electric utility to meet a requirement of the Renewables Portfolio Standard, or any regulation, order, or decision adopted by the c~~C~~ommission pertaining to the Renewables Portfolio Standard for local publicly owned electric utilities, shall include, but not be limited to, the ~~following~~ informational requirements set forth in section 1233.1(b).~~:~~

~~(A) A statement of facts upon which the complaint is based.~~

~~(B) A statement indicating the statute, regulation, order, or decision upon which the complaint is based.~~

~~(C) The action the Commission is requested to take.~~

~~(D) The authority for the Commission to take such action.~~

(c) Any person or entity may participate in a proceeding filed under this section but shall not be entitled to intervene or otherwise become a party to the proceeding. Participation includes the ability to provide oral and written comments in the proceeding.

(d) Answer

(1) The local publicly owned electric utility shall file an answer ~~with the Chief Counsel~~ within 45 ~~calendar~~ days after service of the complaint. The answer shall be filed with the commission as specified in section 1208. In addition to those matters set out in section 1233.2, the answer shall include all data, reports, analyses, and any other information deemed relevant by the local publicly owned electric utility to any claims, allegations, or defenses made in the answer. The answer may also include information deemed relevant by the local publicly owned electric utility to support findings of fact regarding any mitigating or otherwise pertinent factors related to any alleged violation or to a possible monetary penalty that may be imposed if noncompliance is determined pursuant to this section. The information included regarding any mitigating or otherwise pertinent factors may describe all relevant circumstances, including, but not limited to, the following:

(A) The extent to which the alleged violation has or will cause harm.

(B) The nature and expected persistence of the alleged violation.

(C) The history of past violations.

(D) Any action taken by the local publicly owned electric utility to mitigate the alleged violation.

(E) The financial burden to the local publicly owned electric utility.

(2) In the event that the local publicly owned electric utility includes in the answer any confidential business information, trade secrets, or other information sought to be withheld from public disclosure, the local publicly owned electric utility shall submit such information in a

separate filing, under seal, at the time the local publicly owned electric utility files the answer. The information shall be submitted to the e~~E~~xecutive d~~D~~irector along with a complete request for confidential designation in accordance with section 2505.

(e) Response

(1) Commission staff may file ~~with the Chief Counsel~~ a response to the answer no later than 15 ~~calendar~~ days after receipt of the answer. ~~The response shall be served upon the local publicly owned electric utility upon filing.~~

(2) In the event that c~~C~~ommission staff files a response under (e)(1), the local publicly owned electric utility may file ~~with the Chief Counsel~~ a reply to such response no later than 10 ~~calendar~~ days from receipt of such response. ~~The reply shall be served upon Commission staff upon filing.~~

(f) Hearing

(1) A hearing on the complaint shall be scheduled to commence no sooner than ~~30~~45 ~~calendar~~ days after the filing of the answer ~~a staff response~~ pursuant to subdivision (~~e~~ d) of this section.

(2) A notice of hearing on the complaint shall be provided in accordance with section ~~1233.3(b)~~ 1209. ~~Such notice shall be provided no later than 30 calendar days after the last filing is made.~~

(3) The hearing may be scheduled before the full c~~C~~ommission, a committee designated by the c~~C~~ommission, or a hearing officer assigned by the c~~C~~hair at the request of the committee as provided in section 1205.

(4) If the hearing is not held before the ~~full~~ c~~C~~ommission, the proposed decision set out in section 1233.4(a) shall be forwarded to the ~~full~~ c~~C~~ommission, to the extent reasonably possible, no later than 45 ~~calendar~~ days after the hearing has been concluded. If the hearing is held before the ~~full~~ c~~C~~ommission, to the extent reasonably possible, the c~~C~~ommission shall publish its decision within 45 ~~calendar~~ days after the hearing has been concluded.

(g) The decision of the ~~full~~ c~~C~~ommission shall be a final decision. There is no right of reconsideration of a final decision issued under this section 1240. The decision will include all findings, including findings regarding mitigating and aggravating factors related to noncompliance. The decision may also include findings regarding mitigating and aggravating factors upon which the California Air Resources Board may rely in assessing a penalty against a local publicly owned electric utility pursuant to Public Utilities Code section 399.30, subdivisions (o) and (p). The decision may also include suggested penalties for the California Air Resources Board to consider, as appropriate. Any suggested penalties shall be comparable to penalties adopted by the California Public Utilities Commission for noncompliance with a Renewables Portfolio Standard requirement for retail sellers.

(h) Referral

(1) No sooner than five days after the time for filing a petition for writ of mandate in accordance with Public Resources Code section 25901 has passed, c~~C~~ommission staff shall forward a notice of violation, based on the final decision of the ~~full~~ c~~C~~ommission, together with the record of proceedings, to the California Air Resources Board for determination of a penalty.

The record of proceedings shall include all filings made in the course of the proceedings, the transcripts of the hearing and any exhibits used during the course of that hearing, and any correspondence between the respondent and the c~~C~~ommission pertaining to the proceedings.

(2) If a petition for writ of mandate is filed by respondent, c~~C~~ommission staff shall not forward the notice of violation to the California Air Resources Board until the matter is fully and finally determined. In the event a petition for writ of mandate is filed by respondent, the record of proceedings shall also include all filings made by all parties in the action and any appeals thereof.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 399.30, Public Utilities Code. Reference: Section 399.30, Public Utilities Code.

Chapter 3. Data Collection

Article 1. Quarterly Fuel and Energy Reports

§ 1301 Title.

The Reports described in this Article shall be known as the Quarterly Fuel and Energy Reports.

Note: Authority cited: Sections 25213, 25218(e) and 25320, Public Resources Code. Reference: Sections 25005.5, 25216, 25216.5, 25300-25303, 25401, 25401.2, 25403, 25403.5, 25602 and 25604, Public Resources Code; and Sections 9615 and 9620, Public Utilities Code.

§ 1302 Rules of Construction and Definitions.

(a) Rules of Construction.

(1) Where the context requires, the singular includes the plural and the plural includes the singular.

(2) The use of “and” in a conjunctive position means that all elements in the provision must be complied with, or must exist to make the provision applicable. Where compliance with one or more elements suffices, or where existence of one or more elements make the provision applicable, “or” (rather than “and/or”) is used.

(b) Definitions. In this Article, the following definitions apply unless the context clearly requires otherwise:

(1) “California offshore lands” means all lands under California state jurisdiction pursuant to subdivision (a)(2) of 43 U.S.C. Section 1301.

(2) “Cogenerator” means a power plant that produces (1) electricity; and (2) useful thermal output for industrial, commercial, heating, or cooling purposes.

(3) “Company” means any person, firm, association, organization, partnership, business trust, corporation, or public entity, or any subsidiary, parent, affiliate, department, or agency thereof.

(4) “Control area” means an electric system or systems, bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Control Areas and contributing to frequency regulation of the Western Electricity Coordinating Council.

(5) “Core customer” means a natural gas customer that consumes less than 20,800 therms of natural gas per month.

(6) “Customer” means an active billed account, of a UDC, an LSE, or a gas utility.

(A) “Bundled customer” means an end-user who receives generation services from the same LSE from which it receives distribution services.

(B) “Unbundled customer” means an end-user who receives generation services from one LSE and distribution services from a UDC that is a separate entity from that LSE.

(7) “Customer Classification Code” means NAICS codes and the following codes:

(A) RE0000 for residential service;

(B) 925190 for streetlighting service;

(B) 221311 for water supply service;

(D) 221312 for irrigation system service; and

(E) 999999 for unclassified service.

(8) “Customer sector” means the following:

(A) residential customer sector: private households, including single and multiple family dwellings, plus NAICS code 81411;

(B) commercial building customer sector: NAICS codes 115, 2372, 326212, 42, 44-45, 48841, 493, 512, 516, 518, 519, 52-55, 561, 61, 62 (excluding 62191), 71, 72, 81 (excluding 81411), and 92 (excluding 92811);

(C) other commercial customer sector: NAICS codes 221 (excluding 22131), 48 (excluding 48841), 49 (excluding 493), 515, 517, 562, 62191, and 92811;

(D) industry customer sector: NAICS codes 11331, 31-33, 511, and 54171;

(E) other industry customer sector: NAICS codes 21 and 23 (excluding 2372);

(F) agriculture customer sector: NAICS codes 111, 112, 113 (excluding 11331), and 114;

(G) water pumping customer sector: NAICS code 22131;

(H) street lighting customer sector: lighting of streets, highways, other public thoroughfares, other outdoor area lighting, and traffic control lighting.

(9) “Customer group” means the following:

(A) residential: customers consuming electricity for residential purposes;

(B) commercial: customers consuming electricity for commercial purposes;

(C) industrial: customers consuming electricity for industrial purposes; and

(D) other: customers consuming electricity for other purposes.

(10) “Demand” means the rate at which electricity is delivered by generation, transmission, and distribution systems, measured in units of watts or standard multiples thereof, (e.g., 1,000 Watts = 1 kilowatt, 1000 kilowatt = 1 megawatt) or the rate at which natural gas, measured as million cubic feet per day, is consumed by the customer.

(11) “Distribution service” means those services provided by a UDC when it constructs, maintains, and utilizes power lines and substations to transmit electrical energy within its distribution service area to end-users.

(12) “Distribution service area” or “UDC service area” means the geographic area where a UDC distributes, or has distributed during an applicable reporting period, electricity to consumers.

(13) “EIA” means the Energy Information Administration of the United States Department of Energy.

(14) “Electric generator” means a machine that converts mechanical energy into electrical energy; or a device that converts non-mechanical energy to electricity directly, including without limitation photovoltaic solar cells and fuel cells.

(15) “Electric transmission system owner” means an entity, or where there is more than one owner, the majority of plurality owners or the managing partner, that owns an interconnected group of lines and associated equipment for the movement or transfer of electric energy between points of supply and points at which it is transformed for delivery to customers or is delivered to other electric systems.

(16) “Electric utility” means any company engaged in, or authorized to engage in, generating, transmitting, or distributing electric power by any facilities, including, but not limited to, any such company subject to regulation of the Public Utilities Commission.

(17) “End user” means any company that consumes electricity or natural gas for its own use and not for resale.

(18) “Energy storage system” means commercially available technology that is capable of absorbing energy, storing, and dispatching the energy.

(19) “Executive Director” means the Executive Director of the Commission, or his or her designee.

(20) “Fuel cost” means the delivered cost of fuel consumed by an electric generator, expressed in dollars.

(21) “Fuel use” means the amount of fuel, expressed in both physical units such as cubic foot, barrel, or ton, and in heat content such as Btus, used for gross generation, or for any other purpose related to the operation of an electric generator including without limitation providing spinning reserve, start-up, or flame stabilization.

(22) “Gas processor” means any company that extracts, in California, natural gas liquids from natural gas produced from California reservoirs.

(23) “Gas retailer” means any company that (a) sells natural gas to end users or customers located in California, (b) produces and consumes natural gas on-site in California (except for gas consumed for gathering, processing, or compressing purposes), or (c) produces natural gas at one site and consumes natural gas at another site that is in California and that is owned or controlled by the company.

(24) “Gas service area” means the geographic area where a gas utility distributes, or has distributed during an applicable reporting period, natural gas to customers.

(25) “Gas utility” means any company that is (a) engaged in, or authorized to engage in, distributing or transporting natural gas or natural gas liquids, and that is (b) either owned or operated by a governmental public entity or regulated by the California Public Utilities Commission.

(26) “Generation service” means those services provided by an LSE when it procures electrical energy for consumption by its end-user customers.

(27) “Gross generation” means the total amount of electricity produced by an electric generator.

(28) “Hourly demand” means demand integrated over a single clock hour, measured in megawatt hours.

(29) “Hourly load” means the chronological sequence of hourly demands for a specified subset of, or for all customers of, an LSE for a specified interval of time.

(30) “Hourly sector load” means the hourly load of customer sectors measured at customer meters. Hourly sector data does not include losses.

(31) “Hourly system load” means the hourly load of a UDC or a control area, measured at power plants and at interconnections. Hourly system load includes losses.

(32) “Interchange” means electric power or energy that flows from one control area to another control area.

(33) “Interstate pipeline” means any pipeline that crosses a state border and that is under the regulatory authority of the Federal Energy Regulatory Commission or its successors.

(34) “Interstate pipeline company” means a company that owns or operates an interstate pipeline that delivers natural gas to California at the state's border or inside California's borders.

(35) “Interval meter” means any energy meter capable of collecting and transmitting demand data at intervals of an hour or less.

(36) ”Interval meter data” means demand data collected and transmitted by interval meter.

(37) “Load-serving entity” or “LSE” means any company that (a) sells or provides electricity to end users located in California, or (b) generates electricity at one site and consumes electricity at another site that is in California and that is owned or controlled by the company. LSE does not include the owner or operator of a cogenerator.

(38) “Local publicly-owned electric utility” or “local publicly owned electric utility” has the same definition as provided in Public Utilities Code section 9604.

(39) “Losses” means electricity that is lost, primarily as waste heat, as a natural part of the process of transmitting electricity from power plants to end-users.

(40) “Major customer sector” means the following:

(A) “residential major customer sector,” which means residential customer sector;

(B) “commercial major customer sector,” which means commercial building customer sector;

(C) “industrial major customer sector”, which means the sum of industry customer sector, and other industry customer sector; and

(D) “other major customer sector”, which means the sum of agriculture customer sector, other commercial customer sector, street lighting customer sector, and water pumping customer sector.

(41) “Meter identification number” means the unique number assigned by a utility to an individual meter for purposes of tracking demand and providing billing services.

(42) “Monthly system peak demand” means the highest system hourly demand in a calendar month.

(43) “Nameplate capacity” means the full-load continuous rating of an electric generator or a power plant under specific conditions as designated by the manufacturer.

(44) “Natural gas liquids” means liquid products that are produced at natural gas processing facilities and that are gaseous at reservoir temperatures and pressures but are recoverable by condensation or absorption.

(45) “Natural gas sales” means the amount of natural gas sold by a Gas Retailer to a customer.

(46) “Net generation” means gross generation less plant use by an electric generator for auxiliary equipment.

(47) “Noncore customer” means a natural gas customer that is not a core customer.

(48) “North American Industry Classification System” or “NAICS” means the system of classification for business establishments set forth in the most recent version of the North American Industry Classification System United States Manual Executive Office of the President, Office of Management and Budget, Washington, D.C.), and as revised thereafter in the Federal Register.

(49) “NAICS Code” means the applicable 6-digit (unless otherwise specified) code in the NAICS for the entity being classified.

(50) “Outer continental shelf” means all submerged lands lying seaward and outside of the area of lands beneath navigable waters, as defined in 43 U.S.C. Section 1301, and of which the subsoil and seabed appertain to the United States and are subject to its jurisdiction and control.

(51) “Peak demand” means the highest integrated net energy for load within a certain period (e.g., in a month, a season, or a year).

(A) For a UDC, peak demand is the sum of all net energy for load, within a specific operating hour, for all LSEs providing generation services within a UDC's service area.

(B) For each LSE, peak demand is the sum of all net energy for load, including assignable losses, within a specific operating hour for the specific customers to which the LSE provides generation services.

(C) “Net energy for load” means generation energy injected into a specific electrical system, plus energy received from other systems less energy delivered to other systems through interchange. It includes losses, but excludes energy required to operate storage facilities or plant use by a generator.

(52) “Person” means an individual human being.

(53) “Plant use” means the electricity used in the operation of an electric generator, or the electricity used for pumping at pumped storage power plants.

(54) “Power plant” means a plant located in California or a California control area that contains one or more prime movers, one or more electric generators, and appropriate auxiliary equipment.

(55) “Power plant owner” means any company that owns a power plant, or, where there is more than one owner, the majority or plurality owner or the managing partner.

(56) “Premise identification number” means the unique identification number assigned by a utility to a collection of buildings and/or meters serving an individual customer at a contiguous location.

(57) “Prime mover” means the engine, gas turbine, steam turbine, water wheel, or other machine that produces the mechanical energy that drives an electric generator; or a device that converts non-mechanical energy to electricity directly, including without limitation photovoltaic solar cells and fuel cells.

(58) “PV” means flat-plate non-concentrating photovoltaic modules.

(59) “Rate schedule” means the alphanumeric designation for the utility service customer agreement including all service rates and charges and all classifications, practices, rules, or regulations which in any manner affect or relate to the utility services, rates, and charges.

(60) “Secure electronic method” means any method of data transmission that uses end-to-end encryption such that information is encrypted at its origin and decrypted at its intended destination without intermediate decryption.

(61) “Service account number” means the unique identification number assigned by a utility to an account to track demand and provide billing services.

(62) “Stocks” means quantities of oil, natural gas, or natural gas liquids representing actual measured inventories corrected to 60 degrees Fahrenheit less basic sediment and water where an actual physical measurement is possible. Stocks include domestic and foreign quantities held at facility and in transit thereto, except those in transit by a pipeline.

(63) “Submitted” means, with regard to data, a report, or an application that must be submitted by a specified date, that the data is received at the Commission by that date and that the data, report, or application is complete, accurate, and in compliance with the applicable requirements of this Article and with the forms and instructions specified under Section 1303 and 1342.

(64) “Therm” means a unit of heat equal to 100,000 British thermal units (1.054 x 108 joules).

(65) “Tolling Agreement” means a contractual arrangement whereby the buyer of electricity agrees to provide specified amounts of natural gas to a power plant for conversion to specified amounts of electric energy over a specified period of time.

(66) “Useful thermal output” means the thermal energy made available in a cogeneration system for use in any industrial or commercial process, heating or cooling application, or delivered to other end users, i.e., total thermal energy made available for processes and applications other than electrical generation.

(67) “Utility distribution company” or “UDC” means an electric utility, or a business unit of an electric utility, that distributes electricity to customers.

(68) “Waste heat” means the thermal energy produced during electrical generation but not utilized for a useful purpose as defined in “useful thermal output,” i.e., the total heat content of the fuel used to generate electricity minus the energy content of the useful thermal output and electricity production.

Note: Authority cited: Sections 25213, 25218(e) and 25320, Public Resources Code. Reference: Sections 25005.5, 25100-25141, 25216, 25216.5, 25300, 25301, 25302, 25302.5, 25303, 25305, 25305.1, 25310, 25324, 25330 et seq., 25401, 25401.2, 25403, 25403.5, and 25602, Public Resources Code; and Sections 9615 and 9620, Public Utilities Code.

§ 1303. General Rules for All Reports.

(a) Submittal of Reports. Each entity subject to reporting requirements identified in this Article shall also submit to the Commission all of the applicable data and reports listed in this Section.

(b) Forms and Instructions. The data and reports shall be submitted on forms, and in accordance with instructions for the forms, specified by the Executive Director, which may include without limitation a requirement that the data or reports be submitted in electronic format generally or in a specific electronic format. The Executive Director shall consult with interested companies before specifying forms and instructions adopted by the Energy Commission.

(c) Monthly Reports and Data. Unless provided otherwise, data or reports referred to as "monthly" shall be submitted for the previous month on the 15th day of each month.

(d) Quarterly Reports and Data. Unless provided otherwise, data or reports referred to as "quarterly" shall be submitted for the previous calendar quarter on the 15th day of February, May, August, and November. Quarterly data or reports may, as specified in this Article, be required to contain data on a month-by-month basis.

(e) Annual Reports and Data. Unless provided otherwise, data or reports referred to as "annual" or "annually" shall be submitted for the previous calendar year on the 15th day of February. Annual data or reports may, as specified in this Article, be required to contain data on a month-by-month or quarter-by-quarter basis. Publicly-owned utilities that operate on a fiscal year basis may chose to provide annual reports containing financial information and data submissions containing financial information within 75 days of the close of the fiscal year in lieu of providing those reports and data on the 15th day of February.

(f) Extension of Deadlines Specified in this Article. The company responsible (or delegated the responsibility under Section 1303(g)) for submitting data, a report, or an application may apply for and receive from the Executive Director an extension of the deadlines established in this Article. The Executive Director shall act on an application within five business days after it is received at the Commission. The Executive Director's decision may be appealed to the full Commission; the Commission shall act on an appeal within 14 days after the appeal is received; the Commission may summarily deny an appeal without a hearing. An extension, which shall be no more than 30 days, shall be granted if:

(1) The company submits and the Commission receives, no later than 15 days before the data, report, or application is due an application that includes:

(A) the full legal name, address of the principal place of business, telephone number, fax number, e-mail address, and website address of the company submitting the application;

(B) the name, address of the principal place of business, telephone number, fax number, and e-mail address of the person employed by the company submitting the application, who should be contacted with questions about the application;

(C) the name of the report and the Sections of these regulations applicable to the data, report, or application;

(D) the reasons why the company believes the data, report, or application cannot be, or may not be able to be, submitted on time;

(E) the measures the company is taking to complete the data, report, or application on time or as soon thereafter as possible;

(F) the date the company believes the data, report, or application will be submitted; and

(G) a declaration executed under penalty of perjury of the laws of the State of California stating:

1. the full legal name, address of the principal place of business, telephone number, fax number, and e-mail address of both the person executing the declaration and the company submitting the application, and the title of the person;

2. that the person executing the declaration is authorized to do so and to submit the application on behalf of the company; and

3. that the matters contained in the application are, to the best of the person's knowledge and belief and based on diligent investigation, true, accurate, complete, and in compliance with these regulations.

(2) the Executive Director finds that there is good cause for an extension and that the data, report, or application is likely to be submitted by the extended due date.

(g) Any company designated in this Article as required to submit data or a report may delegate to another company the submittal of the data or report if the delegatee agrees, but in any event the company designated in this Article shall be responsible for the timely, accurate, and complete submittal of the data or report and an authorized employee thereof shall execute the declaration required by Section 1303(l)(8).

(h) Previously-submitted Data or Reports. If any of the data required to be included in a report is exactly the same as the data included in a previous report submitted by the same company, the current report need not contain that data if it refers to the previously-submitted data in sufficient specificity to allow the data to be found and retrieved easily.

(i) Submittal of Alternative Data, Reports, or Format. The company responsible (or delegated the responsibility under Section 1303(g)) for submitting data or a report under this Article may apply for and receive from the Executive Director authorization to submit, in lieu of the required data or report, another collection of data assembled and prepared by the company for a purpose other than compliance with this Article, or to submit data not in accordance with the forms and instructions specified under Section 1303(b). The Executive Director shall act on an application within 20 days after it is received by the Commission. If the application is granted, then the company may submit updated alternative data for each subsequent report without the need for a subsequent application. The Executive Director's decision may be appealed to the full Commission; the Commission shall act on an appeal within 14 days after the appeal is received; the Commission may summarily deny an appeal without a hearing. The Executive Director may revoke authorization at any time for any reason. An application shall be granted if:

(1) The company submits and the Commission receives, no later than 30 days before the data or report is due, an application that includes:

(A) the full legal name, address of the principal place of business, telephone number, fax number, e-mail address, and website address of the company submitting the application and of the entity to which the alternative collection of data was or will be submitted;

(B) the name, address of the principal place of business, telephone number, fax number, and e-mail address of the person employed by the company submitting the data or report, who should be contacted with questions about the application;

(C) the name of the report and the Sections of these regulations applicable to the data or report;

(D) the name, date, and if applicable publication number of the alternative collection of data;

(E) the reasons why the company believes that the alternative collection of data meets each applicable requirement of this Section and all other sections in this Article; and

(F) a declaration executed under penalty of perjury of the laws of the State of California stating:

1. the full legal name, address of the principal place of business, telephone number, fax number, and e-mail address of both the person executing the declaration and the company submitting the application, and the title of the person;

2. that the person executing the declaration is authorized to do so and to submit the application on behalf of the company; and

3. that the matters contained in the application are, to the best of the person's knowledge and belief and based on diligent investigation, true, accurate, complete, and in compliance with these regulations.

(2) the Executive Director finds that compliance with these regulations and the needs of the Commission, other entities, and the public will not be harmed by granting of the application.

(j) Parents, Subsidiaries, and Affiliates. Except to the extent allowed by Section 1303(g), if a company required to submit data or a report is a parent, subsidiary, or affiliate of another company, the former company shall submit the data or report only for its own activities and not for the activities of the parent, subsidiary, or affiliate.

(k) Multiple Reports. A company may submit under one cover data or reports required by more than one section in this Article, if the data or report required by each section is identified in a table of contents and in the document and the data or report is clearly separated from data or reports required by other sections.

(*l*) Data Required in All Reports. Each report required by this Article shall include, in addition to the data specified in those sections, the following:

(1) the full legal name, address of the principal place of business, telephone number, fax number, e-mail address, and website address of the company submitting the report;

(2) the name, address of the principal place of business, telephone number, fax number, and e-mail address of the person employed by the company submitting the report, who should be contacted with questions about the report;

(3) the full legal name, address of the principal place of business, telephone number, fax number, e-mail address, and website address of the company responsible for submitting the data or report;

(4) the date on which the report is being submitted;

(5) the time period or periods that the report covers;

(6) an indication of the status of the company responsible for submitting the report: i.e., power plant owner, LSE, UDC, control area operator, gas utility, gas retailer, gas processor, or interstate pipeline company;

(7) the sections of this Article applicable to the report; and

(8) a declaration that is executed under penalty of perjury of the laws of the State of California, and that is executed by an authorized employee of the company responsible for submitting the report, stating:

(A) the name, address of the principal place of business, telephone number, fax number, and e-mail address of both the person executing the declaration and the company responsible for submitting the report, and the title of the person;

(B) that the person executing the declaration is authorized to do so and submit the report on behalf of the company responsible for submitting the report; and

(C) that the matters contained in the report are, to the best of the person's knowledge and belief and based on diligent investigation, true, accurate, complete, and in compliance with these regulations.

(m) Accuracy of Customer Classification Coding.

(1) Electricity and natural gas sales data reported pursuant to Sections 1306(a) and 1308(c) shall be accurately classified by Customer Classification code. Data shall be deemed accurately classified if, based on a random sample comparing (I) the Customer Classification code used for classification under Section 1306(a) or 1308(c) used for general customer record keeping to (II) an independently-derived Customer Classification code known to be accurate for each non-residential establishment in the sample, 99% of customer accounts, weighted by energy, are correctly classified at the major customer sector level and 90% of customer accounts, weighted by energy, are correctly classified at the 4-digit Customer Classification code level.

(2) If the Executive Director believes that sales data provided by a UDC or gas utility is not accurately classified by Customer Classification code, he or she may require the appropriate UDC or gas utility to conduct a study of the UDC or gas utility's records to verify the accuracy of the Customer Classification coding of the data submitted to the Commission. The study shall be

provided to the Commission within three months of the date of the Executive Director's notification of the requirement for a study. If the study reveals that the accuracy requirements contained in subdivision (m)(1) of this section are not being met, the UDC or gas utility shall submit a plan to correct the Customer Classification Coding to allow it to meet those accuracy requirements. Such plan shall be submitted within six months of the date of the Executive Director's notification of the requirement for a study and shall contain the following:

(A) an identification of the measures needed to ensure that the accuracy requirements contained in subdivision (m)(1) of this section are met; and

(B) a commitment to implement the measures identified in subdivision (m)(2)(A) above no later than one year from the date of the Executive Director's notification of the requirement for a study.

Note: Authority cited: Sections 25213, 25218(e) and 25320, Public Resources Code. Reference: Sections 25005.5, 25216, 25216.5, 25300-25303, 25401, 25401.2, 25403, 25403.5, 25602 and 25604, Public Resources Code; and Sections 9615 and 9620, Public Utilities Code.

§ 1304. Power Plant Reports.

(a) Reports by Power Plant Owners. Each power plant owner shall submit all of the data and reports required by this subsection for each power plant that has a nameplate capacity of one megawatt or more, and that it owns or owned during the reporting period. For the purposes of this subsection, all of the wind turbines in an power plant shall be collectively considered as one single electric generator.

(1) Each Report: Power Plant Identification. The following data shall be submitted for each power plant with every quarterly, or annual report:

(A) name of the power plant;

(B) identification number of the power plant assigned by the Commission;

(C) facility code of the power plant assigned by the EIA;

(D) address where the power plant is physically located: street address, city, county, state and zip code;

(E) if the power plant operator is not the power plant owner, the power plant operator's full legal name and address of principal place of business including the street address, city, state, and zip code;

(F) nameplate capacity of the power plant;

(G) if the power plant supplies electricity directly to an entity on site, the Customer Classification code of the entity;

(H) if the power plant was sold during the reporting period;

1. the settlement date of the power plant sale;

2. the buyer's and the seller's full legal names and addresses including street address, city, state, and zip code; and

3. the name, address including street address, city state, and zip code, and telephone number of the contact persons for the buyer and seller; and

(I) for each electric generator in the power plant:

1. the identification number assigned by the power plant owner;

2. nameplate capacity of the electric generator and, if the prime mover is a wind turbine, the total number of the turbines reflected in the nameplate capacity;

3. the date electricity was first generated by the electric generator;

4. the operating status of the electric generator during the reporting period, such as operating, standby, cold standby, on test, maintenance, out of service, indefinite shutdown, or retired;

5. if the electric generator was retired during the reporting period, the retirement date;

6. an identification of the prime mover that drives the electric generator; and

7. an indication whether the primer mover is part of a combined-cycle unit.

(2) Generation and Fuel Use Data.

(A) For power plants with nameplate capacity of one megawatt or more and less than ten megawatts, the following data shall be submitted annually:

1. gross generation of each electric generator, in megawatt hours;

2. net generation of each electric generator, in megawatt hours;

3. fuel use, by fuel type, of each electric generator;

4. fuel use, by fuel type, for useful thermal output and electricity generation of each cogenerator;

5. electricity in megawatt hours, consumed on site by the power plant owner, other than for plant use, classified by Customer Classification Code;

6. sales for resale, in megawatt hours;

7. for cogenerators providing useful thermal output to commercial or industrial end-users, sales of electricity to those end–users, classified by Customer Classification Code, in megawatt hours, excluding sales to the wholesale market or LSEs;

8. for cogenerators, useful thermal output provided by each cogenerator to each recipient, in million British thermal units, classified by Customer Classification Code; and

9. for cogenerators, waste heat of each electric generator, in million British thermal units.

(B) For power plants with nameplate capacity of ten megawatts or more and less than fifty megawatts, the following data shall be submitted quarterly:

1. monthly gross generation of each electric generator, in megawatt hours;

2. monthly net generation of each electric generator, in megawatt hours;

3. monthly fuel use, by fuel type, of each electric generator;

4. monthly fuel use, by fuel type, for useful thermal output and electricity generation of each cogenerator;

5. monthly electricity in megawatt hours, consumed on site by the power plant owner, other than for plant use, classified by Customer Classification Code;

6. monthly sales for resale, in megawatt hours;

7. for cogenerators providing useful thermal output to commercial or industrial end-users, monthly sales of electricity to those end-users, classified by Customer Classification Code, in megawatt hours, excluding sales to the wholesale market or LSEs;

8. for cogenerators, monthly useful thermal output provided by each cogenerator to each recipient, in million British thermal units, classified by Customer Classification Code; and

9. for cogenerators, monthly waste heat of each electric generator, in million British thermal units.

(C) For power plants with nameplate capacity of fifty megawatts or more, the following data shall be submitted quarterly:

1. monthly gross generation of each electric generator, in megawatt hours;

2. monthly net generation of each electric generator, in megawatt hours;

3. monthly fuel use, by fuel type, of each electric generator;

4. monthly fuel use, by fuel type, for useful thermal output and electricity generation of each cogenerator;

5. monthly electricity in megawatt hours, consumed on site by the power plant owner, other than for plant use, classified by Customer Classification Code;

6. monthly sales for resale, in megawatt hours;

7. for cogenerators providing useful thermal output to commercial or industrial end-users, monthly sales of electricity to those end-users, classified by Customer Classification Code, in megawatt hours, excluding sales to the wholesale market or LSEs;

8. for cogenerators, monthly useful thermal output provided by each cogenerator to each recipient, in million British thermal units, classified by Customer Classification Code;

9. for cogenerators, monthly waste heat of each electric generator, in million British thermal units; and

10. monthly fuel cost by fuel type of each electric generator, except for the cost of fuel provided to the generator through a tolling agreement. If fuel is provided to the generator through a tolling agreement, indicate the portion of the fuel use identified in subdivision (a)(2)(C)(4) that is provided to the generator through the tolling agreement.

(3) The following environmental information related to power plant operations shall be reported annually:

(A) Environmental information related to water supply and water / wastewater discharge.

1. Water Supplies: Owners of power plants with a generating capacity of 20 megawatts and greater shall submit copies of reports or filings required by regulations, permit, or contract conditions that identify any of the following information for the previous calendar year:

a. a description of the type of cooling technology being used for each unit within a power plant;

b. the name of the water supplier(s) under contract to provide water to the power plant, if applicable, or the name of the water source as assigned by the U.S. Geological Survey on its 7.5-minute map series. Or, if well water is used, provide the well identification number and location as specified in the California Department of Water Resources, Water Facts, Issue No. 7, "Numbering Water Wells in California", June 2000.

c. the daily average and daily maximum water use volumes in gallons for all power plant purposes;

d. the monthly and annual amounts of water used for all power plant purposes in acre-feet; and

e. the metering technology used to measure and track water use at the power plant and the frequency at which meter readings are recorded (hourly, daily, weekly, monthly or annually).

2. Wastewater Discharges: Owners of power plants with a generating capacity of 20 megawatts and greater shall submit copies of reports or filings required by regulations, permit, or contract conditions that identify any of the following information for the previous calendar year:

a. a description of the physical and chemical characteristics of the source water or the wastewater discharge, including any information prepared with the approved test methodology and detection limits specified by the U.S. Environmental Protection Agency in 40 CFR s136.3 for analyzing the constituents in wastewater.

b. the wastewater disposal system(s) used at the power plant for discharges related to power plant cooling and operations, the manufacturer(s), and the year of installation;

c. the measures taken, and the devices installed on the wastewater disposal system's outfall, to control pollution discharges to municipal systems, receiving waters or land;

c. the name of the utility or organization receiving the wastewater discharge, if applicable, or the name of the receiving water as assigned by the U.S. Geological Survey on its 7.5-minute map series;

e. the monthly and annual totals of wastewater that are created from power plant operations in acre-feet; and

f. the daily average and daily maximum waste water discharge volumes in gallons.

(B) Environmental information related to biological resources: Owners of power plants with a generating capacity of one megawatt or greater shall submit copies of reports or filings required by regulations, permit, or contract conditions that identify any of the following information for the previous calendar year:

1. documentation of the "take" of terrestrial, avian and aquatic wildlife subject to legal protection under California Fish & G. Code s 2050 et seq., 16 U.S.C.A. s 1371 et seq., 16 U.S.C.A. s 1531 et seq., and 16 U.S.C. A. s 668 et seq. that occurred as a result of operation of the power plant.

2. documentation and identification of the biomass (by weight) and species composition of fishes and marine mammals killed by impingement on the intake screens of each once-through cooling system;

(C) Copies of any written notification provided by any state or federal regulatory agency to the owner of a power plant with a generating capacity of one megawatt or more that operation of the power plant has created a violation of an applicable statute, regulation, or permit condition related to environmental quality or public health during the previous calendar year, or that there is an ongoing investigation regarding a potential violation at the time that the data identified in this subdivision is required to be filed with the commission.

(b) Reports by UDCs. Each UDC shall report the following data for each power plant and energy storage system located in the UDC's service area and for which data is collected. The report shall be submitted on January 31 and July 31 each year, but if information for an existing plant has already been provided pursuant to this section, and is unchanged, the filing need only identify the date on which the information was previously provided.

(1) power plants with a generating capacity of 100 kilowatts or more:

(A) facility name; and

(B) facility code assigned by the EIA.

(2) all power plants:

(A) nameplate capacity in kilowatts;

(B) voltage at which the power plant or energy storage system is interconnected with the UDC system or transmission grid;

(C) operating mode (e.g., independent power producer, cogeneration, dispatched as part of a demand side management program, parallel operation with utility deliveries in order to achieve premium power reliability, customer-dispatched to reduce delivered energy charges, peak shaving, emergency/backup/interruptible);

(D) technology type (e.g., combined cycle, combustion turbine, microturbine, internal combustion engine, photovoltaic, wind turbine, fuel cell); and

(E) fuel type (e.g., natural gas, biogas, diesel, solar, wind.).

(3) all power plants and energy storage systems:

(A) address where the power plant or energy storage system is physically located, including the street address, city, state, and zip code;

(B) power plant or energy storage system owner's full legal name and, if a non-residential customer, address of principal place of business, including the street address, city, state, and zip code;

(C) longitude and latitude, if available;

(D) interconnection agreement type (e.g., interconnection agreements required by interconnection standards adopted in California Public Utilities Commission D.00-12-037 and in modifications to that decision, net energy metering agreement);

(E) date of interconnection approval;

(F) if the power plant or energy storage system is no longer interconnected, the date the power plant or energy storage system is no longer interconnected to the utility distribution system; and

(G) if the power plant or energy storage system is connected to that part of the customer's electrical system not owned by UDC, provide the following;

1. service account number;

2. premise identification number;

3. meter identification number; and

4. rate schedule.

Note: Authority cited: Sections 25213, 25218(e) and 25320, Public Resources Code. Reference: Sections 25005.5, 25216, 25216.5, 25300-25303, 25305, 25305.1, 25310, 25401, 25401.2, 25403, 25403.5 and 25602, Public Resources Code.

§ 1305. Control Area Operator Reports.

Each control area operator with California end users inside its control area, including without limitation the California Independent System operator, shall submit the following data:

(a) Monthly Reports on Monthly System Peak Demand: monthly system peak demand in the control area, and the date and hour of the monthly system peak demand.

(b) Quarterly Reports on Interconnections:

(1) the names of all other control areas with which the control area is interconnected;

(2) the names of all interconnections with other control areas; and

(3) the operating voltages of all such interconnections expressed in kilovolts.

(c) Quarterly Reports on Interchanges:

(1) the name of each control area with which the control area operator scheduled interchanges;

(2) for each month, electricity, expressed in megawatt hours that was scheduled to be delivered from each control area identified in Section 1305(b)(1) into the control area operator's control area;

(3) for each month, electricity, expressed in megawatt hours that was scheduled to be delivered from the control area operator's control area to each control area identified in Section 1305(b)(1);

(4) for each month, electricity, expressed in megawatt hours that was delivered from each control area identified in Section 1305(b)(1) into the control area operator's control area; and

(5) for each month, electricity, expressed in megawatt hours that was delivered from the control area operator's control area to each control area identified in Section 1305(b)(1).

(d) UDCs Operating within a Control Area. Each year, each control area operator shall provide the following information for the prior calendar year:

(1) a list of the UDCs providing distribution services within the control area as of the December 31 of the prior calendar year;

(2) mail and e-mail address for each UDC identified in subdivision (d)(1) of this section;

(3) a list of the UDCs that began or ceased providing distribution services within the control area, and the date on which those changes occurred; and

(4) for each control area that reported changes pursuant to subdivision (d)(3) of this section, the following information shall be provided:

(A) updates to data series reported by the control area operator to the commission pursuant to Article 1 and Article 2 of this Chapter that are necessary to ensure that the Commission possesses a continuous series for that data for the three previous calendar years for the control area as defined at the close of the prior calendar year, and

(B) copies of all data submitted by the control area operator to WECC as part of WECC's Control Area Certification Procedure, adopted December 5, 2003.

(e) Annual Reports:

(1) hourly loads for all of the electricity consumption and losses in the control area; and

(2) if the definition of control area changed during the previous year, provide the date of the change, describe the nature of the change, and explain how this change affected the identification of hourly loads in subdivision (e)(1) of this section.

Note: Authority cited: Sections 25213, 25218(e) and 25320, Public Resources Code. Reference: Sections 25005.5, 25216, 25216.5, 25300-25303, 25401, 25401.2, 25403, 25403.5, 25602 and 25604, Public Resources Code.

§ 1306. LSE and UDC Reports, and Customer Classification Reports.

(a) Quarterly UDC Reports.

(1) Each UDC shall report the number of customers, revenue expressed in dollars, volume expressed in kWh for all electricity sold or delivered by the UDC during each of the previous three months as follows:

(A) sales to bundled customers classified by county, retail rate class, and customer classification code; and

(B) deliveries to unbundled customers classified by county, retail rate class, and customer classification code.

(2) for purposes of complying with subdivision (a)(1) of Section 1306, the following requirements shall apply:

(A) revenue for bundled customers is the aggregation of generation and non-generation costs, and excludes city or local taxes;

(B) revenue for unbundled customers is the aggregation of all non-generation costs, and excludes city or local taxes; and

(C) retail rate class is the general level of rate class used by UDC. Any rate schedule excluded from retail rate classes shall be reported as an aggregated amount classified by county and customer classification code.

(3) each UDC shall provide an electronic file with a list of the retail rate classes provided in subdivision (a)(1) of this section, including a description of each retail rate class.

(4) Quarterly UDC Reports. Each UDC that provides distribution services for other LSEs shall report quarterly to the Commission the following information:

(A) name of each LSE;

(B) business address of each LSE; and

(C) sales of electricity, expressed in kilowatt hours, by each LSE in the UDC's service area for each month of the preceding quarter.

(5) After February 15, 2020, the requirements of subdivisions 1 through 4 of subdivision (a) of this Section shall not apply to UDCs reporting under Section 1353 (b).

(b) Quarterly LSE Reports. LSEs not reporting under 1306(a), shall report the following:

(1) number of customers during each of the previous three months, classified by UDC, county, and major customer sector or customer group;

(2) revenue, defined as the aggregation of all costs plus profits, received by an LSE from its end-use customers in providing generation services, and expressed in dollars during each of the previous three months, classified by UDC, county, and major customer sector or customer group; and

(3) volume expressed in kWh, for all electricity sold by the LSE during each of the previous three months, classified by UDC, county, and major customer sector or customer group.

Note: Authority cited: Sections 25213, 25218(e) and 25320, Public Resources Code. Reference: Sections 25005.5, 25216, 25216.5, 25300-25303, 25401, 25401.2, 25403, 25403.5 and 25602, Public Resources Code.

§ 1307. Gas Utility and Gas Retailer Reports and Customer Classification Reports.

(a) Quarterly Gas Retailer Reports. Each gas retailer that does not report pursuant to 1308(c), shall report quarterly the following:

(1) Natural Gas Sales.

(A) monthly natural gas sales expressed in millions of therms;

(B) monthly number of customers; and

(C) monthly revenue expressed in dollars, including commodity charges, adjustments, and any other charges billed for gas sold.

(2) The information provided in subdivisions (a)(1)(A), (B), and(C) above shall be classified by county, month, and major customer sector or customer group.

(b) Gas Retailer Information to the Commission. For each gas retailer that sells natural gas to customers in the gas utility's gas service area, the gas utility shall report quarterly to the Commission:

(1) name of the gas retailer;

(2) business address of the gas retailer; and

(3) sales of natural gas, expressed in thousand cubic feet or therms, to customers in the gas utility's service area;

Note: Authority cited: Sections 25213, 25218(e) and 25320, Public Resources Code. Reference: Sections 25005.5, 25216, 25216.5, 25300-25303, 25401, 25401.2, 25403, 25403.5, 25602 and 25604, Public Resources Code.

§ 1308. Quarterly Gas Utility and Electric Generator Tolling Agreement Reports.

(a) Monthly natural gas receipts. Each gas utility shall report quarterly all natural gas received by the gas utility for each of the previous three months, expressed in thousand cubic feet or therms; and the average heat content of the natural gas received, expressed in Btu per cubic feet; each classified by all of the following:

(1) How received: purchased, transported for others, or withdrawn from storage;

(2) Where and from whom the natural gas was received, according to the following entities and locations:

(A) Pipeline locations at the California Border

1. El Paso Natural Gas at Topock

2. El Paso Natural Gas at Blythe

3. Transwestern Pipeline at Needles

4. PG&E Gas Transmission – Northwest at Malin

5. Ruby Pipeline at Malin

6. Other California Border Receipt Points (Designate)

(B) Instate locations

1. Questar Pipeline at Essex

2. Kern River Gas Transmission /Mojave Pipeline at Wheeler Ridge

3. Kern River Gas Transmission/Mojave Pipeline at Hector Road

4. PG&E at Kern River Station

5. California Production at Wheeler Ridge

6. Kern River Gas Transmission at Daggett

7. Rainbow compression station

8. Dana Point compression station

9. Other interconnect points

(C) California Production

1. California onshore production received into the gas utility system

2. California offshore lands production received into the gas utility system

3. California outer continental shelf production received into the gas utility system.

(b) Monthly Natural Gas Sendout. Each gas utility shall report all natural gas delivered by the gas utility for each of the previous three months, expressed in thousand cubic feet or therms; and the average heat content of the natural gas delivered, expressed in Btu per cubic feet; each classified by all of the following:

(1) Core Customer Deliveries.

(A) Each Major Customer Sector (designate)

(B) Natural gas used to generate electricity when waste heat is used for industrial or commercial processes.

(C) Natural gas used to generate electricity when waste heat is used for industrial or commercial processes other than enhanced oil recovery.

(D) Natural gas used to generate electricity when waste heat is not used for industrial or commercial processes.

(E) Other (designate by Customer Classification code)

(2) Noncore Customer Deliveries

(A) Each Major Customer Sector (designate)

(B) Natural gas used to generate electricity when waste heat is used for industrial or commercial processes.

(C) Natural gas used to generate electricity when waste heat is used for industrial or commercial processes other than enhanced oil recovery.

(D) Natural gas used to generate electricity when waste heat is not used for industrial or commercial processes.

(E) Other (designate by Customer Classification code)

(3) Delivery to other utilities through the following delivery points:

(A) Kern River Station

(B) Wheeler Ridge

(C) Rainbow compression station

(D) Dana Point compression station

(E) Other points (designate)

(4) Delivery to Interstate Pipelines through the following delivery points:

(A) Freemont Peak

(B) Wheeler Ridge

(C) Hector Road

(D) Daggett

(E) Other points (Designate)

(5) Delivery to International Pipelines

(A) Otay Mesa into Mexico

(B) Calexico into Mexico

(C) Other points (designate)

(6) For Storage Injection

(A) Gas utility-owned storage

(B) Non-gas utility-owned storage

(7) Losses and Unaccounted for

(c) Monthly Natural Gas Delivery.

(1) Each gas utility shall report the number of customers, delivery revenue expressed in dollars, volume expressed in therms, and natural gas average heat content expressed in Btu per cubic feet, for all natural gas sold or transported by the gas utility during each of the previous three months as follows:

(A) sales to core customers, excluding cogeneration customers, by county and NAICS code;

(B) sales to core cogeneration customers by county and NAICS code;

(C) sales to noncore customers, excluding cogeneration customers, by county and NAICS code;

(D) sales to noncore cogeneration customers by county and NAICS code;

(E) transport to core customers, excluding cogeneration, by county and NAICS code;

(F) transport to core customers for cogeneration, by county and NAICS code;

(G) transport to noncore customers, excluding cogeneration, by county and NAICS code, and

(H) transport to noncore customers for cogeneration by county and NAICS code.

(2) For purposes of subdivision (c)(1) of Section 1308, revenue for both sales and transport shall be expressed in dollars, in aggregate, and shall include commodity costs and all non-commodity components of the utility's rates, including without limitation, costs of receiving, transporting, distributing, injecting to storage, recovering from storage, administration, regulatory, public purpose programs, energy market restructuring transition costs, and balancing accounts.

(3) After February 15, 2020, the requirements of subdivisions 1 and 2 of subdivision (c) of this Section shall not apply to gas utilities reporting under Section 1353 (c).

(d) Natural Gas Tolling Agreements. Each LSE that has entered into a tolling agreement to provide natural gas to the owner or operator of an electric generator with a capacity of 50 MW or more for the operation of that generator shall report the following for each of the previous three months and for each electric generator:

(1) amount of natural gas delivered expressed in therms;

(2) the price of the natural gas delivered pursuant to subdivision (d)(1) of this section; and

(3) the location of the delivery identified in subdivision (d)(1) of this section.

Note: Authority cited: Sections 25213, 25218(e) and 25320, Public Resources Code. Reference: Sections 25005.5, 25216, 25216.5, 25300-25303, 25401, 25401.2, 25403, 25403.5 and 25602, Public Resources Code.

§ 1309. Quarterly Interstate Pipeline Company Reports.

(a) Each interstate pipeline company shall report all natural gas receipts from sources inside California's border for each month during the previous quarter, expressed in thousand cubic feet or therms; and for each source of such natural gas, the average heat content of the natural gas received, expressed in Btu per cubic foot; each classified by:

(1) California production

(2) Kern River Station

(3) Hector Road

(4) Daggett

(5) Wheeler Ridge

(6) Other (designate)

(b) Each interstate pipeline company shall report for each month during the previous quarter the following for residential customers and for each group of non-residential customers that have the same Customer Classification code, each further subdivided by county and for each month:

(1) natural gas deliveries expressed in thousand cubic feet or therms; and

(2) number of customers.

(c) Each interstate pipeline shall report for each month during the previous quarter all natural gas volumes delivered by such company to locations in California or at the California border, expressed in thousand cubic feet or therms, and the average heat content of the natural gas delivered, expressed in Btu per cubic foot; each classified by:

(1) Natural gas utilities (designate).

(2) Interstate Pipelines (designate).

(3) Delivery Points.

(A) Topock

(B) Needles

(C) Blythe

(D) Malin

(E) Wheeler Ridge

(F) Hector Road

(G) Daggett

(H) Kern River Station

(I) Other (Designate)

Note: Authority cited: Sections 25213, 25218(e) and 25320, Public Resources Code. Reference: Sections 25005.5, 25216, 25216.5, 25300-25303, 25401, 25401.2, 25403, 25403.5, 25602 and 25604, Public Resources Code.

§ 1310. Natural Gas Processor Reports.

Each natural gas processor shall report quarterly:

(a) by month for each of the previous three months,

(b) by plant, and

(c) for each of the following products:

(1) Methane

(2) Ethane

(3) Propane

(4) Normal Butane

(5) Isobutane

(6) Pentanes Plus

(d) the following data:

(1) stocks at the beginning of the month;

(2) receipts during the month;

(3) inputs during the month

(4) production during the month;

(5) shipments during the month;

(6) plant fuel use and losses for processing during the month;

(7) stocks at the end of the month.

Note: Authority cited: Sections 25213, 25218(e) and 25320, Public Resources Code. Reference: Sections 25005.5, 25216, 25216.5, 25300-25303, 25401, 25401.2, 25403, 25403.5, 25602 and 25604, Public Resources Code.

§ 1311. Energy Efficiency Program Data Collection from Local Publicly-Owned Utilities.

Beginning in 2008, and every year thereafter, each local publicly-owned utility shall report no later than March 15 to the Commission its annual investments in energy efficiency and demand reduction programs for its previous fiscal year. The report shall include at least:

(a) for electric energy efficiency programs:

(1) a description of each program by category (residential, nonresidential, new construction, cross-customer, and other);

(2) expenditures by program category, identified as administrative costs, delivery costs, incentive and installation costs, and evaluation, measurement, and verification costs;

(3) expected and actual annual energy and peak demand savings by program category; and

(4) an explanation of how these energy efficiency programs were determined to be cost-effective.

(b) for demand reduction programs:

(1) a description of each program;

(2) expenditures associated with each program;

(3) expected demand reduction, and any actual reduction from the programs, and

(4) an explanation of how these demand reduction programs were determined to be cost-effective.

Note: Authority cited: Sections 25213, 25218(e) and 25320, Public Resources Code. Reference: Sections 25005.5, 25216, 25216.5 and 25300-25303, Public Resources Code; and Section 9615, Public Utilities Code.

§ 1314 Natural Gas System Analysis

(a) Each gas utility with annual natural gas deliveries of 200 million therms or more in both of the two calendar years preceding the required data filing shall, on August 1, 2018 and on March 15 every year thereafter, via secure electronic method, provide files that are used by the gas utility to conduct gas hydraulic modeling for its natural gas system during the previous calendar year, including the scenarios (1) – (4) below:

(1) average summer day (June through September);

(2) average winter day (November through March);

(3) 1-in-10 peak summer and winter day; and

(4) any additional summer and winter day representing demand higher than that identified in subdivisions (1)-(3) above.

(b) The files provided need not identify natural gas infrastructure dedicated to retail customers other than power plants.

Note: Authority cited: Sections 25213, 25218(e) and 25320, Public Resources Code. Reference: Sections 25005.5, 25216, 25216.5, 25300-25303, 25303.5, 25305, 25400, 25401, 25401.2, 25403, and 25602, Public Resources Code.

Article 2. Forecast and Assessment of Energy Loads and Resources

§ 1341. Rules of Construction and Definitions.

The rules of construction and definitions in Section 1302 of Article 1 of this chapter apply to this Article.

Note: Authority cited: Sections 25213, 25218(e) and 25320, Public Resources Code. Reference: Sections 25005.5, 25216, 25216.5, 25300, 25301, 25302, 25302.5, 25303, 25324 and 25330 et seq., Public Resources Code; and Sections 9615 and 9620, Public Utilities Code.

§ 1342. General Requirements for Preparation of Planning Reports and Supporting Survey and Load Metering Data Collection Requirements.

(a) Reports Must Be Submitted. Each entity subject to reporting requirements identified in this Article shall also submit to the Commission the applicable data set forth in this Section.

(b) Forms and Instructions. The data shall be submitted according to instructions for forms, specified by the Executive Director, consistent with and contained in Sections 1342, 1343 and 1344. The instructions may include without limitation a requirement that the data be submitted in electronic format generally or in a specific electronic format.

(c) Extensions of deadlines specified in this Article. The person responsible (or delegated the responsibility in this Article) for submitting a report may apply for and receive from the Executive Director an extension of the deadlines established in this Article. The Executive Director shall act on an application within five business days after it is received at the Commission. The Executive Director's decision may be appealed to the full Commission; the Commission shall act on an appeal within 14 days after the appeal is received; the Commission may summarily deny an appeal without a hearing. An extension shall be granted for no more than 30 days, if:

(1) The company submits and the Executive Director receives, no later than 15 days before the report is due, an application that includes:

(A) the full legal name, address of the principal place of business, telephone number, fax number, e-mail address, and website address of the company submitting the application for an extension;

(B) the name, address of the principal place of business, telephone number, fax number, and e-mail address of the person employed by the company submitting the report, who should be contacted with questions about the application for an extension;

(C) the name of the report and the sections of these regulations applicable to the report;

(D) the reasons why the report cannot be, or may not be able to be, submitted on time, and the date the report will be submitted;

(E) the measures the company is taking to complete the report on time or as soon thereafter as possible; and

(F) a declaration executed under penalty of perjury under the laws of the State of California stating:

1. the full legal name, address of the principal place of business, telephone number, fax number, and e-mail address of both the person executing the declaration and the company submitting the application;

2. that the person executing the declaration is authorized to do so and to submit the application on behalf of the company; and

3. that the matters contained in the application are, to the best of the person's knowledge and belief and based on diligent investigation, true, accurate, complete, and in compliance with these regulations.

(2) The Executive Director finds that good cause exists for an extension and that the report is likely to be submitted by the extended due date.

(d) Date of "Submittal." A report under this Article is "submitted," for purposes of these regulations, when it is received at the Commission and it is complete, accurate, and in compliance with the applicable requirements and forms and instructions specified in this Article.

(e) Delegation of Reporting Duty. The company designated in subsection (a) as required to submit a report may delegate to another company the submittal of the report if the delegatee agrees, but in any event the company designated in subsection (a) shall be responsible for the timely, accurate, and complete submittal of the report.

(f) Submittal of Previous Report. If the data included in a report is exactly the same as the data contained in a previously submitted report from the same company, the current report need only reference the previously submitted data in sufficient detail to allow its easy retrieval.

(g) Submittal of Alternative Data, Reports, or Format. The company responsible (or delegated the responsibility in this Article) for submitting data or a report may apply for and receive from the Executive Director authorization to submit, in lieu of the required data or report: another collection of data assembled and prepared for a purpose other than compliance with this Article, or submit data not in accordance with the forms and instructions specified in this Article.

(1) The Executive Director shall act on an application for the submission of alternative data within 20 days after it is received by the Commission.

(2) If the application is granted for the submission of alternative data, then the company may submit the alternative data for each report required in this Article without the need for a subsequent application, if the alternative data contains all of the data required by this Article as applicable and is current for the time period or periods specified in those sections.

(3) The Executive Director's decision may be appealed to the full Commission; the Commission shall act on an appeal within 14 days after the appeal is received; the Commission may summarily deny an appeal without a hearing. The Executive Director may revoke authorization to submit alternative data at any time for any reason.

(4) An application for the submission of alternate data shall be granted if:

(A) The company submits and the Executive Director receives, no later than 30 days before the report is due, an application that includes:

1. the full legal name, address of the principal place of business, telephone number, fax number, e-mail address, and website address of the company submitting the application to provide alternative data;

2. the name, address of the principal place of business, telephone number, fax number, and e-mail address of a contact person who can answer questions about the application for submission of alternative data;

3. the name of the report and the sections of these regulations applicable to the report;

4. the reasons why the alternative collection of data meets each applicable requirement of this Article; and

5. a declaration executed under penalty of perjury under the laws of the State of California stating:

a. the full legal name, address of the principal place of business, telephone number, fax number, and e-mail address of both the person executing the declaration and the company submitting the application;

b. that the person executing the declaration is authorized to submit the application on behalf of the company; and

c. that the matters contained in the application are, to the best of the person's knowledge and belief and based on diligent investigation, true, accurate, complete, and in compliance with these regulations.

(B) The Executive Director finds that good cause exists for granting the application to submit alternative data. That determination shall include a finding that compliance with these regulations and the needs of the Commission, other entities and the public will not be harmed by the granting of the application.

(h) Information Required in All Reports. Each report required by this Article, in addition to the data specified in the applicable section, must include the following:

(1) the name, address of the principal place of business, telephone number, fax number, e-mail address, and website address of the company submitting the report;

(2) the name, address of the principal place of business, telephone number, fax number, and e-mail address of a contact person who can answer questions about the report;

(3) the name, address of the principal place of business, telephone number, fax number, e-mail address, and website address of the person responsible for submitting the report;

(4) if the company submitting a report has divisions, departments, subsidiaries, or similar entities covered by the report, the report shall include the name of each entity and reflect the activities of each entity;

(5) the date the report is being submitted;

(6) the time period or periods that the report covers;

(7) the status of the company responsible for submitting the report: i.e., UDC, LSE, electric transmission system owner, electric generator owner, interstate pipeline company, or gas utility, (if the company operates more than one type of entity, the report shall state the type of entity the report is being submitted for and list the other entities that the company represents);

(8) a declaration executed under penalty of perjury of the laws of the State of California, and that is executed by an authorized employee of the company responsible for submitting the report, stating:

(A) the full legal name, address of the principal place of business, telephone number, fax number, and e-mail address of both the person executing the declaration and the company responsible for submitting the report;

(B) that the person executing the declaration is authorized to submit the report on behalf of the company; and

(C) that the matters contained in the report are, to the best of the person's knowledge and belief and based on diligent investigation, true, accurate, complete, and in compliance with these regulations.

(i) Techniques Required; Replicable Results. All data submitted under this Article shall be:

(1) gathered, organized, analyzed, and reported using standard, generally-accepted, and documented professional statistical, engineering, data-gathering, and other appropriate techniques;

(2) presented in sufficient detail to allow replication of the results by the Commission staff and by other experts in the field; and

(3) accompanied by the following:

(A) complete identifications of the sources of all data;

(B) complete descriptions of all assumptions used; and

(C) complete identifications and descriptions of all methodologies used.

Note: Authority cited: Sections 25213, 25218(e) and 25320, Public Resources Code. Reference: Sections 25005.5, 25216, 25216.5, 25300, 25301, 25302, 25302.5, 25303, 25324 and 25330 et seq., Public Resources Code; and Section 9620, Public Utilities Code.

§ 1343. Energy End User Data: Survey Plans, Surveys, and Reports.

(a) Each UDC that has experienced a peak electricity demand of 1000 MW or more in both the two calendar years preceding the required data filing date, and each natural gas utility that has delivered 100 billion cubic feet of gas per year in both of the two calendar years preceding the required data filing date shall complete the survey plans, surveys, and reports described in this Section, unless exempt as described under the Compliance Option described under subsection (f).

(b) Survey Plans and Plan Approval.

(1) Submittal of Survey Plans. For each survey a utility or UDC is required to perform under this Section, the utility or UDC must complete and submit to the Commission a plan for conducting the survey that is consistent with subsections (b) through (e) of this Section. This plan is due one year before survey data is due under subsection (d) and shall describe, at a minimum:

(A) the purpose, scope, and design of the survey project;

(B) the data to be collected, including all data required by subsection (b);

(C) the methods and schedules to be followed;

(D) the format for presenting the results;

(E) the use of contractors to assist in the project;

(F) the estimated cost of the project, nature of funding source, and regulatory authority to complete the study;

(G) what confidential data will be used in the study; how confidentiality will be maintained during the conduct of the survey; any special confidentiality protection needed for types of data not explicitly addressed by Chapter 7, Article 2 of this Division; and

(H) the means for ensuring that the data are representative of the entire end user population located within the utility distribution company service area. The Commission shall presume that the results are representative if the design satisfies all of the following requirements:

1. The survey is designed to achieve end-use saturation estimates accurate to within plus or minus 5 percent at a 95 percent confidence level;

2. The survey design includes methods to reduce non-response bias, including repeated contacts of non-respondents;

3. The survey design includes methods to ensure and verify that results are representative of the end user population; and

4. Survey methods (such as mail, telephone, or on-site data collection methods) are appropriate to the complexity and amount of data requested.

(2) Commission Approval of Plans. The Commission shall evaluate each survey plan in light of the requirements set forth in this Section, and shall approve any plan that meets the requirements of this Section. During this evaluation, the Commission staff may recommend improvements or amendments to enhance the value, reliability, or relevance of the survey results to energy demand forecasting and analysis. The Commission shall approve or disapprove a submitted plan, including a revised plan, within 60 days of its submission. If the Commission disapproves of a plan, it shall specify the plan's deficiencies in writing. Within 30 days of receiving survey plan disapproval, the utility or UDC shall submit to the Commission a revised plan correcting the specified deficiencies.

(3) The surveys shall be conducted in accordance with the approved survey plan. If changes to the survey plan become necessary, the utility or UDC shall notify the Commission in writing before those changes are implemented. If the Commission objects to the changes, it shall notify the utility or UDC within ten working days of its receipt of those changes. If the Commission does not respond, the amended plan will be accepted.

(c) Data Collection Requirements. Each utility or UDC shall complete surveys of end-users in the residential, commercial, and industrial major customer sectors within its distribution service area every four years, carried out in accordance with the plan approved under subsection (b). Major customer sectors shall be defined pursuant to Section 1302 of this Chapter, except that NAICS code 324 may be excluded from the industrial customer sector. The data collected by the surveys shall include, without limitation, all of the following:

(1) For all customers:

(A) presence and characteristics of energy-using equipment;

(B) installed energy efficiency measures;

(C) building management controls, and measures designed to shift load;

(D) presence and type of any metering and telemetry equipment used to meter energy use;

(E) presence, type, and characteristics of any energy-producing equipment or fuel supply;

(F) electric and gas retailer identification or type of provider;

(G) location of the building surveyed, identified by zip code;

(H) patterns of behavior and appliance and equipment operation affecting energy use and load profiles; and

(I) building characteristics, including wall construction, foundation, number of stories, square footage of the building, and characteristics of windows.

(2) For the residential customer sector:

(A) building type (single family, multifamily, or mobile home) and vintage of building, and

(B) demographic characteristics of occupants, including income, primary language spoken in the home, level of educational attainment, number of persons by age group, and race or ethnic group.

(3) For the commercial building customer sector:

(A) type of business identified by industrial classification code, and

(B) occupancy profile, including number of employees and hours of operation.

(4) For the industrial major customer sector:

(A) type of industry identified by industrial classification code;

(B) number of employees;

(C) annual monetary value of shipments; and

(D) energy-using production processes used by the facility.

(5) Corollary data for all surveys:

(A) all accounting records, customer identifiers, and associated data that are necessary for analysis and development of weights to expand respondent data to the population;

(B) for interval metered accounts, 8760 hours of energy consumption data for each sampled premise. For other accounts, twelve months of energy consumption data for each sampled premise; and

(C) for each survey where the survey plan includes a load metering element, load metering data for each metered, sampled account.

(d) Delivery of Data and Documentation. Each utility or UDC shall provide to the Commission all data required by subsection (c), and a Survey Methodology Report, according to the schedule below. The Survey Methodology Report shall describe the procedures that were followed for the survey, including the survey instrument, sample design, sample selection and implementation process, coding procedures, how the survey as implemented differs from the survey plan, and all other information needed for subsequent analyses of the data.

(1) Residential customer sector: on or before July 1, 2003, and on or before July 1 of every fourth year thereafter.

(2) Commercial building customer sector: on or before July 1, 2004, and on or before July 1 of every fourth year thereafter.

(3) Industrial major customer sector: On or before July 1, 2006, and on or before July 1 of every fourth year thereafter.

(e) Data Analysis Reports

(1) Residential End Use and Saturation Reports. Each utility or UDC shall submit, within six months after the residential sector survey data are due under subsection (d), the following reports based on analysis of the survey data:

(A) the Residential End Use Report shall provide estimates of average energy consumption for each major end use by housing type and vintage. The estimates shall be derived from load metering, engineering or conditional demand analysis techniques, which shall be described in the report; and

(B) the Residential Saturation Report shall document the percentage of households using electricity, natural gas, or other type of energy for each appliance or end use, by housing type and vintage;

(2) Commercial Building Floor Space Stock and Saturation Reports. Each utility or UDC shall submit, within six months after the commercial building sector survey data are due, the following reports based on an analysis of the survey data:

(A) the Floor Space Stock Report shall provide estimates of current year commercial building floor space stock, measured in square footage, by building type and vintage; and

(B) the Commercial Saturation Report shall document the percentage of commercial floor space using electricity, natural gas, or other type of energy for each end use, by commercial building type and vintage.

(f) Data Collection and Analyses Compliance Option. In lieu of the requirements contained in subsection (b) through (e) of this Section, a utility or UDC may participate in projects identified by the Commission as satisfying the corresponding data collection and analyses elements of this Section.

(1) Participation requirements:

(A) may include a funding contribution from each utility or UDC in the amount determined by the Commission to be reasonably necessary to fulfill the data collection objectives of this Section; and

(B) shall require participating utilities or UDCs to provide certain data to the Commission, including, but not limited to, accounting records and geographic identifiers required for designing, selecting, and properly weighting the sample, individual energy consumption histories for sampled accounts, and load metering data that the Executive Director identifies as required for a given project pursuant to Public Resources Code Section 25216.5.

(2) The Commission shall notify utilities or UDCs of project participation opportunities, including the applicable customer sector, schedule and participation requirements for the project

consistent with Section1343. This notification shall occur at least eighteen months before compliance is due.

(3) A utility or UDC shall be in compliance with the corresponding elements of subsections (b) through (e) of this Section for the customer sector identified by the Commission if it meets the following conditions:

(A) the utility or UDC responds in writing to the Commission's notification of a project participation opportunity within 60 days, requesting to use the compliance option. In its response, the utility or UDC shall agree to comply with the Commission's participation requirements;

(B) the utility or UDC submits to the Commission, according to the schedule described in this Section, the information and data for conducting surveys and performing subsequent analyses identified by the Executive Director as necessary to conduct the survey; and

(C) the utility or UDC transfers funding to the Commission in the amount determined by the Commission to be reasonably necessary to fulfill the data collection objectives of this Section.

(4) The Commission shall approve or disapprove the utility's or UDC's request to use the compliance option within 30 days of its submission.

Note: Authority cited: Sections 25213, 25218(e) and 25320, Public Resources Code. Reference: Sections 25005.5, 25216, 25216.5, 25300, 25301, 25302 and 25303, Public Resources Code.

§ 1344. Load Metering Reports.

(a) Annual LSE Customer Load Data by Hour. Beginning March 15, 2008, and every year thereafter, each LSE that has experienced a peak electricity demand of 200 megawatts or more in both of the two calendar years preceding the filing date shall submit annual load data, including losses, for every hour of the previous calendar year for its customers to which it provides generation services, separated by UDC service area in accordance with the following:

(1) Hourly load data and analyses shall be developed and compiled from actual load metering, or using valid statistical estimating techniques when actual measurements are infeasible;

(2) Load metering shall be conducted in an accurate and reliable manner;

(3) Hourly load data shall be delivered to the Commission in electronic form;

(b) Annual Distribution System Load Data by Hour. Beginning March 15, 2008, and every year thereafter, each UDC that has experienced a peak electricity demand of 200 megawatts or more in both of the two calendar years preceding the filing date shall submit its annual distribution system load data for every hour of the previous calendar year in accordance with the following:

(1) Hourly system load data and analyses shall be developed and compiled from actual load metering or from valid statistical estimating techniques when actual measurements are infeasible;

(2) Load metering shall be conducted in an accurate and reliable manner;

(3) Hourly system load data shall be delivered to the Commission in electronic form;

(4) Hourly loads shall be submitted in two formats: (1) the composite of the hourly loads (the composite of customer loads plus distribution losses) for all LSEs supplying electricity in the UDC's distribution service area, and (2) format (1) expanded to include hourly transmission losses for each hour.

(c) Hourly Load Estimates by Customer Sector. Beginning September 1, 2007, and every year thereafter, each UDC that has experienced a peak electricity demand of 1000 megawatts or more in both of the two calendar years preceding the filing date shall submit its hourly sector load estimates by customer sector for the previous calendar year in accordance with the following:

(1) The hourly sector load estimates shall, at a minimum, include identification of each of the following components:

(A) residential customer sector;

(B) commercial customer sector (including commercial building customer sector and other commercial customer sector);

(C) industry customer sector and other industry customer sector);

(D) agriculture customer sector;

(E) water pumping customer sector;

(F) street lighting customer sector;

(G) unclassified customer sector; and

(H) losses.

(2) The samples used to develop hourly load estimates for each sector shall be designed to insure that estimates are accurate to within +10 percent of the monthly sector load coincident with system peak, and with 90 percent confidence.

(3) The hourly sector load estimates shall be delivered to the Commission in electronic form.

(d) Monthly Distribution System Load Data by Hour. Beginning March 15, 2008, and every month thereafter, each UDC that has experienced a peak electricity demand of 2000 megawatts or more in both of the two calendar years preceding the filing date shall submit its distribution system load data for every hour of the previous month in accordance with the following:

(1) Hourly system load data and analyses shall be developed and compiled from actual load metering or from valid statistical estimating techniques when actual measurements are infeasible;

(2) Load metering shall be conducted in an accurate and reliable manner;

(3) Hourly system load data shall be delivered to the Commission in electronic form;

(4) Hourly loads shall include all distribution and transmission system losses.

(e) Annual Electric Transmission System Peak Load Data by hour and subarea. Beginning June 1, 2008, and every year thereafter, each Electric Transmission System Owner that has experienced a peak electricity demand of 2000 megawatts or more in both of the two calendar years immediately preceding the filing date shall submit its hourly load data by subarea for every hour of the previous calendar year in accordance with the following:

(1) Hourly load data and analyses shall be developed and compiled from actual load metering or from valid statistical estimating techniques when actual measurements are infeasible;

(2) Load metering shall be conducted in an accurate and reliable manner;

(3) Hourly load data shall be delivered to the Commission in electronic form;

(4) An electronic file containing geographic identifiers of the subarea shall be included;

(5) Subareas are climate zones or geographic subdivisions of the transmission system area used by the transmission system owner for transmission system expansion plan studies, including studies of local deliverability of load, prepared for the control area operator or governing body.

(f) Emerging Load Impacts. On August 1, 2018 and March 15 every year thereafter, each UDC that has experienced a peak electricity demand of 1000 megawatts or more in both of the two calendar years preceding the filing shall provide a summary of load research data used by the UDC during the previous calendar year for characterizing, assessing, and forecasting load impacts associated with any of the following:

(1) Photovoltaic generation;

(2) Plug-in electric vehicle charging; and

(3) Energy storage system operation.

Note: Authority cited: Sections 25213, 25218(e) and 25320, Public Resources Code. Reference: Sections 25005.5, 25216, 25216.5, 25300, 25301, 25302, 25303, 25305, 25305.1, and 25310, Public Resources Code.

§ 1345. Demand Forecasts.

Each LSE and gas utility shall submit its 10-year demand forecast according to forms and instructions adopted by the Commission.

(a) UDC Electricity Demand Forecasts. Each UDC demand forecast shall include:

(1) A description and map of the UDC service area, including a discussion of any recent or expected changes to the service area;

(2) Presentation of the demographic and economic assumptions that under-lie the forecast, including assumptions about geographic changes in the distribution service area or movement of customers to or from other LSEs;

(3) Forecasted demand for each year of the forecast for the UDC's bundled customers, and for all customers for whom the UDC provides distribution services, each accounting for conservation reasonably expected to occur, beginning with the year in which the forecast is submitted, including:

(A) annual energy and peak demand;

(B) Hourly loads; and

(C) The annual energy demand forecast and peak demand forecast presented by major customer sector.

(4) Plausibility, sensitivity, and alternative economic scenario analyses;

(5) Estimation of the additional cost-effective conservation potential and the impact of possible methods to achieve this potential, and a description of each conservation activity carried out by the UDC and those proposed for future implementation;

(6) UDCs that are also Electric Transmission System Owners shall provide forecast load data for transmission subareas, as defined in Section 1344(e)(5), and

(7) Additional information and analysis consistent with these regulations as required in the forms and instructions adopted by the Commission.

(b) Non-UDC LSE Electricity Demand Forecasts. The demand forecast for each LSE that is not a UDC shall include:

(1) Presentation of the demographic and economic assumptions that under-lie the forecast, including assumptions about movement of customers to or from other LSEs;

(2) Forecasted demand for each year of the forecast, accounting for conservation reasonably expected to occur, beginning with the year in which the forecast is submitted, by UDC distribution service area, including:

(A) Annual energy and peak demand;

(B) Hourly loads; and

(C) The annual energy demand forecast and peak demand forecast presented by major customer sector or customer group.

(3) Additional information and analysis consistent with these regulations as required in the forms and instructions adopted by the Commission.

(c) Each gas utility shall submit the following:

(1) A description and map of the gas utility service area and, if different, the area for which the gas utility forecasts demand;

(2) Presentation of the demographic and economic assumptions that under-lie the forecast, including assumptions about geographic changes in the service area or movement of customers to or from other utilities;

(3) Forecasted demand for each year of the forecast, accounting for conservation reasonably expected to occur, beginning with the year in which the forecast is submitted, including:

(A) Annual and monthly energy demand, and annual peak demand; and

(B) The annual energy forecast and peak forecast presented by major customer sector.

(4) Plausibility, sensitivity, and alternative economic scenario analyses;

(5) Estimation of the additional cost-effective conservation potential and the impact of possible methods to achieve this potential, and a description of each conservation activity carried out by the gas utility and those proposed for future implementation; and

(6) Additional information and analysis consistent with these regulations as required in the forms and instructions adopted by the Commission.

Note: Authority cited: Sections 25213, 25218(e) and 25320, Public Resources Code. Reference: Sections 25005.5, 25216, 25216.5, 25300, 25301, 25302, 25302.5 and 25303, Public Resources Code.

§ 1346. Electricity Resource Adequacy.

Beginning in 2007, each LSE shall annually submit quantitative documentation of its load forecasts and resource plans, and narrative descriptions of its procurement activities that will enable it to have adequate electricity supplies to serve forecasted loads.

(a) LSEs under the jurisdiction of the California Public Utilities Commission for resource adequacy purposes pursuant to Public Utilities Code section 380 shall submit the following information for a period of twelve months following the starting date for which the information is requested:

(1) monthly energy and peak load forecasts segregated by UDC service areas in which the LSE serves end-user customers, including:

(A) base forecast;

(B) customer count projections:

(C) estimated monthly capacity savings and adjustments to peak load forecasts that are expected from energy efficiency programs, interruptible load programs, price-sensitive demand response programs, and distributed generation program that have been classified as load reduction impacts;

(2) resources owned, under the control of, or otherwise available to the LSE to meet monthly peak loads. Include the following information:

(A) physical location (control area) of all generation capacity;

(B) for contracts, specify whether or not the capacity or energy is unit-contingent;

(C) for imports into a control area in which the LSE provides generation services to end-users, the scheduling point(s) for such capacity or energy;

(D) for demand response program impacts, the nature of the program(s) expected to provide load reductions; and

(E) indication of whether the resource is intended to satisfy any local capacity requirements.

(3) deliverability and dispatchability restrictions on generating resources, including:

(A) any terms of deliverability that may limit the dependable capacity of the LSE's generation supplies, including firm transmission rights over interties between control areas at the time of its peak load; and

(B) the terms of ownership or dispatchability that limit the deliverability of generation supplies to serve the LSE's load under monthly peak conditions, including call options, non-firm energy, hydrological conditions, and emission limits.

(4) for the most recent calendar year, historic hourly loads, and for each month, peak demand and resource utilization to satisfy customer demand, operating reserves, and other planning obligations of that month.

(b) LSEs not under the jurisdiction of the California Public Utilities Commission for resource adequacy purposes shall submit the following information for a period of twelve months following the starting date for which the information is requested:

(1) monthly energy and peak load forecasts, including:

(A) base forecast;

(B) customer count projections;

(C) adjustments to the base forecast from the impacts of all demand side management, demand response programs, and customer generation programs and other programmatic activities affecting demand;

(2) resources, under the control of, or otherwise available to the LSE to meet monthly peak loads described by their attributes, including but not limited to the following:

(A) the physical location of all generation capacity;

(B) for contracts whether or not the product is unit contingent;

(C) for imports into a UDC service area, the scheduling point(s) of the energy and any transmission rights applicable to the capacity or energy; and

(D) for demand response program impacts, the nature of the program(s) expected to provide load reductions;

(3) for the most recent calendar year, historic hourly loads, and for each month, peak demand and resource utilization to satisfy customer demand, operating reserves, and other planning obligations of that month;

(4) a detailed description of all adequacy and long-term reliability requirements that control area operators or planning entities have identified as applicable to the LSE, including, but not limited to:

(A) terms of existing tariffs and agreements that identify the specific nature of resource adequacy requirements that an LSE must satisfy;

(B) planning margins for capacity or energy, or other elements of standardized evaluations of the balance between loads and reserve requirements, and resources, established by the Western Electricity Coordinating Council for resource adequacy purposes, if any;

(C) any unit commitment and dispatch obligations imposed by control area operators or other entities operating interconnected electric transmission systems that the LSE meets with generation it owns or controls;

(D) deliverability restrictions, dispatchability provisions, or transmission contingencies that affect the LSE's ability to rely upon specific resources that might affect reliability of service; and

(E) the strategy that the LSE intends to pursue in order to achieve, and once accomplished maintain, the level of resource adequacy it has determined to be appropriate for its customers.

Note: Authority cited: Sections 25213, 25218(e) and 25320, Public Resources Code. Reference: Sections 25005.5, 25216, 25216.5, 25300, 25301, 25302, 25302.5 and 25303, Public Resources Code; and Section 9620, Public Utilities Code.

§ 1347. Resource Plans.

Each LSE shall submit its 10-year resource plan for meeting forecasted demand according to forms and instructions adopted by the Commission.

(a) Resource Plans from LSEs that are UDCs. The resource plan shall be consistent with the forecasted demand documented according to the requirements of s1345(a) and shall include:

(1) A tabulation of forecasted demand and expected supply resources for each year of the forecast beginning with the year in which the resource plan is submitted;

(2) A description of existing and projected sources of supply, including generating projects and purchases from other utilities or elsewhere, specifying construction and operation

costs, fuel sources and costs, capacity factors, water consumption, and environmental impacts and mitigation measures; and

(3) Additional information and analyses consistent with these regulations, including narrative descriptions of the criteria used to develop the resource plan, alternative resource plans, and resource mix preferences, as required in the forms and instructions adopted by the Commission.

(b) Resource Plans from LSEs that are not UDCs. The resource plan shall be consistent with the forecasted demand documented according to the requirements of s1345(b) and shall include:

(1) A tabulation of forecasted demand and expected supply resources for each year of the forecast beginning with the year in which the resource plan is submitted;

(2) A description of existing and projected sources of supply, including generating projects and purchases from other utilities or elsewhere, specifying construction and operation costs, fuel sources and costs, capacity factors, water consumption, and environmental impacts and mitigation measures; and

(3) Additional information and analyses consistent with these regulations, including narrative descriptions of the criteria used to develop the resource plan, alternative resource plans, and resource mix preferences, as required in the forms and instructions adopted by the Commission.

Note: Authority cited: Sections 25213, 25218(e) and 25320, Public Resources Code. Reference: Sections 25005.5, 25216, 25216.5, 25300, 25301, 25302, 25302.5 and 25303, Public Resources Code.

§ 1348. Pricing and Financial Information.

Each LSE, interstate pipeline company, and gas utility shall submit, according to forms and instructions adopted by the Commission, a 10-year forecast of energy prices.

(a) Each LSE that is not a UDC shall submit a forecast of retail electricity prices.

(b) Each LSE that is also a UDC shall submit a forecast of retail electricity prices. These LSEs must also submit the financial variables and assumptions used to derive their forecast.

(c) Each gas utility company and interstate pipeline company shall submit a forecast of retail gas prices.

Note: Authority cited: Sections 25213, 25218(e) and 25320, Public Resources Code. Reference: Sections 25005.5, 25216, 25216.5, 25300, 25301, 25302 and 25303, Public Resources Code.

§ 1349. Electric Transmission System Plan and Corridor Information.

(a) Each electric transmission system owner shall submit a description of its existing electric transmission system, and its most recent transmission expansion plan and documentation of all input assumptions on which the plan is based. The electric transmission system description and transmission expansion plan shall include:

(1) The transfer capabilities of transmission lines or transmission paths within and into the transmission owner's service area.

(A) An identification of the planned upgrades to transmission lines and paths into the transmission owner's service area, including:

1. Descriptions of the upgrade, including costs, benefits, schedules, maps, and the impact of the upgrade on transfer capabilities; and

2. Descriptions of the alternatives considered in developing the transmission expansion plan.

(B) An identification of maintenance activities or construction that could have a significant impact on transfer capabilities (i.e., a major reduction in transfer capability or an extended period of outage or derating) affecting the transmission owner's service area.

(2) Operational or other transmission constraints within the transmission owner's service area, including:

(A) Descriptions of the operational or other constraints and the causes thereof;

(B) An identification of planned upgrades within the transmission owner's service area to relieve operational or other transmission constraints, including:

1. Descriptions of the upgrades, including costs, benefits, schedules, maps, and the impact of the upgrades on transfer capabilities;

2. Descriptions of the alternatives considered in developing the transmission expansion plan.

(C) An identification of maintenance activities or construction that could have a significant impact on transfer capabilities (i.e., a major reduction in transfer capability or an extended period of outage or derating) affecting the transmission owner's service area.

(b) Each electric transmission system owner shall submit an identification of its transmission corridor needs, including maps and descriptions of existing or proposed corridors, that is consistent with its current transmission expansion plan, along with an identification of future corridor needs that have been identified beyond the timeframes of the current expansion plan up to 20 years in the future.

(c) For purposes of this section, the following definitions apply:

(1) Transmission constraint means a limitation on a transmission element that may be reached during normal or contingency system operations.

(2) Transfer capability means the measure of the ability of interconnected electric systems to move or transfer power in a reliable manner from one area to another over transmission lines (or paths), consistent with any existing procedures developed by the Western Electricity Coordinating Council and the North American Electric Reliability Council.

(3) Transmission corridor means the geographic area necessary to accommodate the construction and operation of one or more high-voltage electric transmission lines.

(4) Transmission path means an individual transmission line or a set of transmission lines that limits the reliable transfer or movement of electric power from one area to another.

Note: Authority cited: Sections 25213, 25218(e) and 25320, Public Resources Code. Reference: Sections 25005.5, 25216, 25216.5, 25300, 25301, 25302, 25303, 25324 and 25330 et seq., Public Resources Code.

§ 1350. Exemptions.

(a) A small LSE or small gas utility need not comply with the reporting requirements identified in §§ 1345, 1347, and 1348 of this Article if it provides the information required by §1346.

(b) For purposes of this section, the following definitions apply:

(1) "Small LSE" means an LSE that has experienced a peak electricity demand of less than 200 MW in both of the two calendar years preceding the required filing date.

(2) "Small gas utility" means a gas utility that has delivered 50 billion cubic feet of natural gas or less to end use customers in both of the two calendar years preceding the required filing date.

Note: Authority cited: Sections 25213, 25218(e) and 25320, Public Resources Code. Reference: Sections 25005.5, 25216, 25216.5, 25300, 25301, 25302, 25302.5 and 25303, Public Resources Code.

§ 1351. Requests for Information.

(a)(1) At any time after the filing of a submittal required by this Article, the executive director may make a written request to the filing utility for such information as is necessary for a complete staff analysis of the filing, including in such request the time and manner of utility response.

(2) If the information is not provided, or if the executive director believes that the information will not be provided within a reasonable time, the general counsel may petition the commission for an order securing the information.

(b) This section shall not limit the authority of any persons to obtain information pursuant to any other provision of law.

Note: Authority cited: Sections 25213, 25218(e) and 25320, Public Resources Code. Reference: Sections 25005.5, 25216, 25216.5, 25300, 25301, 25302, 25302.5, 25303 and 25324, Public Resources Code.

§ 1353 Disaggregated Demand Data

(a) Disaggregated Demand Data Reporting. Each entity subject to requirements identified in this Section shall submit the required data via secure electronic method and shall adhere to the reporting requirements identified in Section 1342.

(1) Quarterly Reports and Data. Unless provided otherwise, data or reports referred to as “quarterly” shall be submitted for the previous calendar quarter on the 15th day of February, May, August, and November.

(2) No entity subject to reporting requirements pursuant to this Section shall be required to provide data or reports that it does not collect in the regular course of business; however, if the entity begins to collect some or all of the data not previously collected, it must submit the data in accordance with the requirements of this section.

(3) All interval meter data provided pursuant to this Section may be submitted at the interval collected.

(4) A detailed explanation of any methods used by utility to estimate missing, misread, or non-metered data provided with each quarterly filing.

(b) Electricity Demand and Billing Data. Each UDC that has experienced a peak electricity demand of 1000 MW or more in both of the two calendar years preceding the required data filing date, shall on a quarterly basis provide:

(1) For each non-interval meter:

(A) the street address, city, and zip+4 code where service is provided;

(B) service account number;

(C) premise identification number(s);

(D) monthly charge in dollars (positive or negative);

(E) start of billing cycle;

(F) number of days in billing cycle;

(G) customer participation in UDC energy efficiency program;

(H) rate schedule;

(I) NAICS code;

(J) whether there is interconnected PV associated with the premise identification number;

(K) whether there are energy storage systems associated with the premise identification number;

(L) meter identification number;

(M) monthly volume of electricity sold or delivered in kWhs; and

(N) any information identified in (b)(1)(A) - (M) that has not already been provided for 2018.

(2) For each interval meter:

(A) all information from subdivision (b)(1)(A) through (L);

(B) in 2018, monthly volume of electricity sold or delivered in kWhs, including volumes for months in 2018 that have not already been provided;

(C) beginning in 2019, the following information:

(i) start of interval;

(ii) duration of interval;

(iii) volume of electricity sold or delivered over the interval in kWh; and

(iv) interval peak demand (kW);

(3) For all remaining consumption which is not associated with a meter:

(A) All information from subdivision (b)(1)(A) through (K);

(B) An estimate of the monthly volume of electricity sold or delivered in kWhs;

(C) An estimate of the monthly peak demand (kW, day, and hour); and

(D) Any information identified in (b)(3)(A)-(C) for 2018 that has not already been provided.

(c) Natural Gas Demand and Billing Data. Each gas utility with annual natural gas deliveries of 200 million therms or more in both of the two calendar years preceding the required data filing date, shall on a quarterly basis provide for each meter:

(1) Service address of account number, including the street address, city, and zip+4 code;

(2) Service account number;

(2) Premise identification number;

(3) Meter identification number;

(4) Monthly volume of natural gas sold or delivered in therms;

(5) Monthly charge in dollars (positive or negative), aggregate revenues shall include commodity costs and all non-commodity components of the utility's rates, including without limitation, costs of receiving, transporting, distributing, injecting to storage, recovering from storage, administration, regulatory, public purpose programs, energy market restructuring transition costs, and balancing accounts;

(6) NAICS code;

(7) Energy efficiency program participation identification;

(8) Rate schedule; and

(9) Any information identified in (c)(1)-(8) for 2018 that has not already been provided.

Note: Authority cited: Sections 25213, 25218(e) and 25320, Public Resources Code. Reference: Sections 25005.5, 25216, 25216.5, 25300, 25301, 25302, 25302.5, 25303, 25305, 25305.1, and 25310, Public Resources Code.

Article 3. Petroleum Information Reports

§ 1361. Title.

The reports described in Section 25354 of the Public Resources Code and this article shall be known as the Petroleum Information Reports.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference cited: Sections 25352 and 25354(e), Public Resources Code.

§ 1362. Definitions: General.

For purposes of this article, all terms are to be construed in a manner consistent with their common commercial usage, absent an express indication to the contrary.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Section 25354, Public Resources Code.

§ 1363.1. Definitions: Specific Petroleum and Non-Petroleum Products.

(a) "Aviation Fuels" mean aviation gasoline and aviation jet fuel.

(b) "Aviation Gasoline" (Finished Aviation Gasoline) means all special grades of gasoline for use in aviation reciprocating or piston engines.

(c) "Aviation Jet Fuel" means a quality kerosene product with an average specific gravity of 40.7 API, and ten percent distillation temperature of 400 degrees Fahrenheit and an end-point of 572 degrees Fahrenheit. Aviation Jet Fuel includes Commercial and Military Jet Fuel.

(1) "Commercial Jet Fuel" includes products known as Jet A, Jet A-1 and Jet B.

(2) "Military Jet Fuel" includes products known as JP-5 and JP-8.

(d) "Bio-Diesel" means a diesel fuel substitute or diesel fuel additive or extender typically made from the oils of soybean, rapeseed, or sunflower or animal tallow that is blended with traditional diesel fuel or used in a neat fuel application. Bio-Diesel can also be made from hydrocarbons derived from agricultural products such as rice hulls. A blend of two percent bio-diesel and 98 percent traditional diesel is referred to as Bio-Diesel B2. A blend of five percent bio-diesel and 95 percent traditional diesel is referred to as Bio-Diesel B5. A blend of 20 percent bio-diesel and 80 percent traditional diesel is referred to as Bio-Diesel B20. Bio-Diesel B100 is 100 percent bio-diesel.

(e) "Crude Oil (Domestic)" means a mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Also included is lease condensate moving to a refinery. Drips are also included, but topped crude oil and other unfinished oils are excluded. Natural gas liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Domestic crude oil is petroleum produced in the 50 states or from the "Outer Continental Shelf" as defined in 43 U.S.C. 1331, which is incorporated herein by reference, and includes synthetic crude such as, but not limited to, those derived from shale oil and tar sands.

(f) "Crude Oil (Foreign)" means a mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remain liquid at atmospheric pressure after passing through surface separating facilities. Drips are also included, but topped crude oil and other unfinished oils are excluded. Natural gas liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded. Foreign crude oil is petroleum produced outside of the United States and includes Athabasca hydrocarbons (oil or tar sands).

(g) "Distillates" mean distillate fuel oil without kerosene and other middle distillates not reported elsewhere.

(h) "Distillate Fuel Oil" means a general classification for one of the petroleum fractions produced in conventional distillation operations. It includes diesel fuels and fuel oils. Distillate Fuel Oil includes products known as No. 1, No. 2 and No. 4 diesel fuel and products known as No. 1, No. 2 and No. 4 fuel oils.

(1) "No. 1 Distillate" means a light petroleum distillate used as either a diesel fuel (see No. 1 Diesel Fuel) or a fuel oil (see No. 1 Fuel Oil).

(A) "No. 1 Diesel Fuel" means light distillate fuel oil with a distillation temperature of 550 degrees Fahrenheit at the 90-percent point.

(B) "No. 1 Fuel Oil" means a light distillate fuel oil with a distillation temperature of 400 degrees Fahrenheit at a ten percent recovery point and 550 degrees Fahrenheit at a 90 percent point.

(2) "No. 2 Distillate" means petroleum distillate used as either a diesel fuel (see No. 2 Diesel Fuels) or a fuel oil (see No. 2 Fuel Oil).

(A) "No. 2 Diesel Fuel" means fuel with distillation temperatures of 500 degrees Fahrenheit at a ten percent recovery point and 640 degrees Fahrenheit at a 90 percent recovery point.

(B) "EPA Low Sulfur No. 2 Diesel Fuel (EPA Highway Diesel)" means No. 2 diesel fuel with a sulfur level no higher than 0.05 percent by weight (500 ppm).

(C) "EPA Off-Road No. 2 Diesel Fuel (EPA Off Road Diesel)" means No. 2 diesel fuel with a sulfur level greater than 0.0015 percent by weight (15ppm) and less than 0.05 percent by weight (500 ppm).

(D) "CARB Low Sulfur No. 2 Diesel Fuel (CARB Diesel)" means No. 2 diesel fuel with a sulfur level no higher than 0.05 percent by weight (500 ppm) and with an aromatic hydrocarbon content limited to ten percent by volume.

(E) "EPA Ultra Low Sulfur No. 2 Diesel Fuel (EPA Highway ULS Diesel)" means No. 2 diesel fuel with a sulfur level no higher than 0.0015 percent by weight (15 ppm).

(F) "CARB Ultra Low Sulfur No. 2 Diesel Fuel (CARB ULS Diesel)" means No. 2 diesel fuel with a sulfur level no higher than 0.0015 percent by weight (15 ppm) and with an aromatic hydrocarbon content limited to ten percent by volume.

(G) "High Sulfur No. 2 Diesel Fuel" means No. 2 diesel fuel with a sulfur level above 0.05 percent by weight (500ppm).

(H) "No. 2 Fuel Oil (Heating Oil)" means distillate fuel oil with a distillation temperature of 400 degrees Fahrenheit at a ten percent recovery point and 640 degrees Fahrenheit at a 90 percent recovery point.

(3) "No. 4 Fuel Oil" means distillate fuel oil made by blending distillate fuel oil and residual fuel oil stocks. It includes No. 4 diesel fuel.

(i) "Finished Motor Gasoline" means a complex mixture of relatively volatile hydrocarbons with or without small quantities of additives having a boiling point between 122 and 158 degrees Fahrenheit at a ten percent recovery point, and 365 to 374 degrees Fahrenheit at a 90 percent recovery point. Finished Motor Gasoline includes conventional gasoline, all oxygenated gasoline, and all reformulated gasoline, but excludes aviation gasoline.

(1) "Conventional Gasoline" (not classified as oxygenated or reformulated gasoline) means types of finished gasoline that do not contain any oxygenates. These fuels include:

(A) "Arizona Conventional Gasoline" means finished motor gasoline formulated as identified in Arizona Administrative Code R20-2-701.9, which is incorporated herein by reference, for use in motor vehicles.

(B) "Nevada Conventional Gasoline" means finished motor gasoline formulated as identified in Nevada Administrative Code 590.065, which is incorporated herein by reference, for use in motor vehicles.

(C) "Other Conventional Gasoline" means conventional gasoline other than Arizona or Nevada Conventional Gasoline.

(2) "Oxygenated Gasoline" (not classified as reformulated gasoline outside of California, Arizona or Nevada) means finished motor gasoline that contains an oxygenate. This type of finished gasoline is primarily used during the winter months in regions of the United States that are not in compliance with carbon monoxide standards. These fuels include:

(A) "EPA Winter Oxygenated Gasoline" means a finished gasoline containing a minimum of 1.8 percent oxygen by weight that is formulated as identified in Code of Federal Regulations, tit. 40, § 80.2(rr), which is incorporated herein by reference.

(B) "Arizona Winter Gasoline" means a finished gasoline formulated as identified in Arizona Administrative Code R20-2-701.3, which is incorporated herein by reference, containing ten percent ethanol by volume. The unfinished base gasoline, prior to blending with ethanol, is referred to as Arizona Blendstock for Oxygenate Blending (AZRBOB).

(C) "Nevada Winter Gasoline" means finished gasoline containing ten percent ethanol by volume as identified in Clark County Air Quality Regulations § 53.1 and 53.2, which is incorporated herein by reference. The unfinished base gasoline, prior to blending with ethanol, is referred to as Nevada Blendstock for Oxygenate Blending in Las Vegas (LVBOB).

(3) "Reformulated Gasoline" means finished motor gasoline formulated to reduce emissions of various criteria pollutants from motor vehicles. These fuels include:

(A) "California Reformulated Gasoline (CaRFG)" means finished motor gasoline formulated as identified in California Code of Regulations, tit. 13, §§ 2260-2262.7, which are incorporated herein by reference. This category excludes California Reformulated gasoline Blendstock for Oxygenate Blending (CARBOB).

(B) "EPA Reformulated Gasoline (RFG)" means finished motor gasoline. This category includes oxygenated fuels program reformulated gasoline (OPRG) but excludes Reformulated gasoline Blendstock for Oxygenate Blending (RBOB).

(C) "Arizona Cleaner Burning Gasoline (Arizona CBG)" means finished motor gasoline formulated as identified in Arizona Administrative Code R20-2-701.3, which is incorporated herein by reference. This category excludes Arizona Reformulated gasoline Blendstock for Oxygenate Blending (AZRBOB).

(D) "Nevada Cleaner Burning Gasoline (NVCBG)" means finished motor gasoline formulated as identified in Clark County Air Quality Regulations § 54, Definitions, which is incorporated herein by reference. This category excludes Nevada's Cleaner Burning Gasoline Blendstock for Oxygenate Blending (CBGBOB).

(j) "Kerosene" means a petroleum distillate with a boiling point between 300 to 500 degrees Fahrenheit, a flash point higher than 100 degrees Fahrenheit a gravity range from 40 to 46 API and a burning point between 150 and 175 degrees Fahrenheit.

(k) "Liquefied Petroleum Gases" mean a group of hydrocarbon-based gases derived from crude oil refining or natural gas fractionation. They include ethane, ethylene, propane, propylene, normal butane, butylene, isobutane, and isobutylene.

(l) "Marine Fuels" are generally used by ocean-going marine vessels such as, but not limited to tugboats, harbor ships and recreational marine boats, to fuel their primary and auxiliary compression ignition engines,. Marine fuel types may be categorized as distillate, intermediate or residual per the following grades and names:

(1) "Marine Fuels - Distillate Type" means Gas Oil or Marine Gas Oil. This definition includes products known as "DMX, "DMA," "DMB" and "DMC."

(2) "Marine Fuels - Intermediate Type" means Marine Diesel Fuel or Intermediate Fuel Oil (IFO). This definition includes products known as IFO 180 and IFO 380.

(3) "Marine Fuels - Residual Type" means Fuel Oil or Residual Fuel Oil. This definition includes products known as CARB diesel and CARB ULS diesel.

(4) "Marine Fuels - Low Sulfur" type means distillates with a sulfur level no higher than 0.05 percent by weight (500ppm).

(m) "Motor Gasoline Blending Components" mean components used for blending or compounding into finished motor gasoline. These components include, but are not limited to, reformulated gasoline blendstock for oxygenate blending (CARBOB and RBOB), oxygenates (alcohols and ethers), and gasoline blending components.

(1) "Reformulated Gasoline Blendstocks for Oxygenate Blending" means a base gasoline designed to be blended with an oxygenate to comply with federal or state air quality regulations. These fuels include:

(A) "California Reformulated Gasoline Blendstocks for Oxygenate Blending (CARBOB)" means unfinished motor gasoline formulated as identified in Cal. Code of Regulations, tit. 13, § 2266.5, which is incorporated herein by reference.

(B) "EPA Reformulated Gasoline Blendstocks for Oxygenate Blending (RBOB)" means unfinished motor gasoline formulated as identified in Code of Federal Regulations, tit. 40, § 80.2(kk), which is incorporated herein by reference.

(C) "Arizona Reformulated Gasoline Blendstocks for Oxygenate Blending (AZRBOB)" means unfinished motor gasoline formulated as identified in Arizona Administrative Code, R20-2-701.4, which is incorporated herein by reference.

(D) "Cleaner Burning Gasoline Blendstock for Oxygenate Blending (CBGBOB)" means unfinished motor gasoline formulated as identified in Clark County Air Quality Regulations § 54, Definitions, which is incorporated herein by reference.

(2) "Oxygenates" mean ethers and alcohols that increase the amount of oxygen in gasoline. Common ethers include ETBE, MTBE and TAME. These oxygenates include:

(A) "Ethyl Tertiary Butyl Ether (ETBE)" means an oxygenate blendstock, formed by the catalytic etherification of isobutylene with ethanol, intended for gasoline blending.

(B) "Methyl Tertiary Butyl Ether (MTBE)" means an oxygenate blendstock, formed by the catalytic etherification of isobutylene with methanol, intended for gasoline blending.

(C) "Tertiary Amyl Methyl Ether (TAME)" means an oxygenate blendstock, formed by the catalytic etherification of isoamylene with methanol, intended for gasoline blending.

(D) "Ethyl Alcohol (Fuel Ethanol)" means an anhydrous denatured aliphatic alcohol intended for gasoline blending.

(3) "Gasoline Blending Component" means a product used to blend with gasoline and includes:

(A) "Alkylate" means a branched paraffin compound formed by the catalytic reaction of isobutane with light olefins, such as ethylene, propylene, butylene, and amylene.

(B) "Hydrocrackate" means a high-octane product made in a catalytic hydrocracking unit.

(C) "Isomerate" means a high-aromatics, high-octane product made in an isomerization unit.

(D) "Iso-octane" means a pure hydrogenated form of di-isobutylene, with an average blending octane of 100, not commingled with other types of alkylates.

(E) "Iso-octene" means a pure dimerized form of isobutylene, with an average blending octane of 106, not commingled with other types of alkylates.

(F) "Natural gasoline" means a mixture of liquid hydrocarbons (mostly pentanes and heavier hydrocarbons) extracted from natural gas. It includes isopentane.

(G) "Reformate" means high-aromatics, high-octane product made in a reformer.

(H) "Toluene" means an aromatic hydrocarbon.

(I) "Other Gasoline Blending Components" mean all other gasoline blending components, including butane, butenes, catalytically cracked gasoline, coker gasoline, hexane, mixed xylene, pentane, pentane mixture, polymer gasoline, raffinate, straight-run gasoline, straight-run naphtha, thermally cracked gasoline and transmix containing gasoline.

(n) "Naphtha Jet Fuel" means fuel in the heavy naphtha boiling range with an average specific gravity of 52.8 API and 20 to 90 percent distillation temperatures of 290 to 470 degrees Fahrenheit.

(o) "Natural Gas Liquids" mean all liquid products separated from natural gas in gas processing or cycling plants. These include natural gas plant liquids and lease condensate:

(1) "Natural Gas Plant Liquids" means hydrocarbons in natural gas that are separated as liquids at downstream gas processing plants or at fractionating and cycling plants. Products obtained include liquefied petroleum gases and pentanes plus.

(2) "Lease Condensate" means a mixture consisting primarily of pentanes and heavier hydrocarbons recovered as a liquid from natural gas in lease separation facilities. Lease condensate excludes natural gas plant liquids, such as butane and propane, that are recovered in downstream natural gas processing plants or facilities.

(p) "Petroleum Coke" means a solid residue that is the final product of the condensation process in cracking. It consists primarily of highly polycyclic aromatic hydrocarbons very poor in hydrogen. Calcination of petroleum coke can yield almost pure carbon or artificial graphite suitable for production of carbon or graphite electrodes, structural graphite, motor brushes, dry cells, etc. This type of product is referred to as calcined coke. Petroleum coke is also designated as Marketable and Catalyst:

(1) "Marketable Petroleum Coke" means petroleum coke that is produced by a coker at a refinery.

(2) "Catalyst Petroleum Coke" means petroleum coke that is produced from a fluidized coker at a refinery.

(q) "Petroleum Products" mean, but are not limited to, finished motor gasoline, distillate, marine fuel, kerosene, biodiesel, aviation gasoline, aviation jet fuel, reformulated blendstocks for oxygenate blending, gasoline blending components, residual fuel oil, petroleum coke, liquefied petroleum gases, liquefied natural gas, synthetic fuel and unfinished oil.

(r) "Residual Fuel Oil" means a general classification for heavier oils, known as No. 5 and No. 6 fuel oils, that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations. No. 5 is generally used in steam-powered vessels in government service and onshore power plants. No. 6 fuel oil includes Bunker C fuel oil and is generally used for the production of electric power, space heating, vessel bunkering, and various industrial purposes.

(s) "Synthetic Fuel" means a fuel derived from feedstock such as coal, oil shale, tar sands, biomass, or natural gas, including gas-to-liquid (GTL) fuels.

(t) "Transmix" means the resultant mixture that is created by the commingling of two different petroleum products, at their interface zone, during transport in a petroleum products pipeline.

(u) "ULS Diesel" means ultra low sulfur diesel fuel.

(v) "Unfinished Oils" means all oils requiring further processing at a refinery. Unfinished oils include naphthas and lighter oils, kerosene and light gas oils, heavy gas oils, and residuum.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Section 25354, Public Resources Code.

§ 1363.2. Definitions: Specific Definitions for Purposes of Reporting Requirements.

"Adjusted Dealer Tank Wagon (ADTW)" means the delivered wholesale transaction price for gasoline transported by tanker truck to a retail dealer or franchisee that has been adjusted to reflect the "net cost" to the retail dealer or franchisee such that all rebates or other discounts are subtracted from the original dealer tank wagon (DTW) price to reflect the net cost of the gasoline to the retail dealer or franchisee.

"Airport retail fuel outlet" refers to a facility that stores and dispenses petroleum products, typically jet fuel and aviation gasoline for use in private and/or commercial aircraft. Airport refueling operations that provide refueling services to military aircraft are excluded from this definition.

"API" means the American Petroleum Institute.

"Average Throughput" means the liquid volume transported by a pipeline during a specific period divided by the number of days in that period.

"Barrel" means a unit of liquid measurement that consists of 42 U.S. gallons.

"Bulk Terminal" means a storage and distribution facility not open to the public that is used primarily for wholesale marketing of petroleum products and oxygenates with a minimum storage capacity of 50,000 barrels.

"Bunkering" means the physical transfer of marine fuels from one marine vessel to another marine vessel.

"CARB" means the California Air Resources Board.

"Cardlock Retail Fuel Outlet" means a facility, normally unattended by any operator, that dispenses refined petroleum products to consumers as a sole or predominant activity of their business operation.

"CEC" means the California Energy Resources and Conservation Development Commission or the California Energy Commission.

"Central Coast Region" means a geographic area in California that includes the counties of Monterey, San Benito, San Luis Obispo and Santa Barbara.

"Crude Oil Pipeline System" means a facility that receives its supply from pipeline gathering systems, tanker or barge, and has its terminals located at a refinery or waterside terminal and from which crude oil is shipped directly to one or more refineries in California or transported out of state. A crude oil pipeline system includes all points of origin, terminals, working tank storage capacity, and points of interconnection with crude oil pipeline systems operated by others.

"Dealer Tank Wagon (DTW)" means a delivered wholesale price for gasoline transported by tanker truck to a retail fuel outlet.

"Desert Region" means a geographic area in California that includes the counties of Riverside and San Bernardino.

"Ending Inventory" means the quantity (measured in thousands of barrels) of crude oil, petroleum products or oxygenates that is held as stocks at a refinery, bulk plant, public storage facility or tank farm at the end of a designated reporting period.

"EPA" means the United States Environmental Protection Agency.

"Exchange" means a transaction in which title or interest in petroleum products or crude oil stocks are transferred between firms in return for other petroleum products or crude oil stocks.

"Exporter" means a firm that is the owner of record at the point of loading for crude oil, petroleum products or oxygenates destined for export from California and has exported 20,000 barrels or more of any combination of crude oil, petroleum products or oxygenates during any month of the current or previous year.

"Exports" mean crude oil, petroleum products or oxygenates transported to destinations outside of California by means of marine vessel, rail car, tanker truck, or pipeline.

"Firm" means any person or entity engaged in any activity included in the Cal. Code of Regulations, Title 20, Public Utilities and Energy Division 2, Chapter 3, Article 3, Section 1361 et seq.

"Franchisee" means a retailer or distributor authorized or permitted, under a franchise, to use a trademark in connection with the sale, consignment, or distribution of motor fuel.

"Gross Production" means total crude oil production, including all crude oil consumed in the production process.

"Hypermart Retail Fuel Outlet" means a facility, normally attended by one or more operators, that dispenses refined petroleum products to consumers as a subset of their primary business activity. The predominant business activity consists of the sale to ultimate consumers of non-petroleum goods and services.

"Importer" means a firm that is owner of record at the point of discharge for crude oil, petroleum products or oxygenates imported to California and has imported 20,000 barrels or more of any combination of crude oil, petroleum products or oxygenates during any month of the current or previous year. Importer also includes firms delivering 5,000 gallons or more of non-California fuels to a site in California by tanker trucks.

"Imports" include crude oil, petroleum products, oxygenates and non-California fuels that are transported to California from destinations originating outside of California by means of marine vessel, rail car, tanker truck, or pipeline.

"Independent Retail Fuel Outlet Operator" means a firm, other than a Refiner or Major Petroleum Products Marketer, that owns or leases a retail fuel outlet, that is engaged in the trade or business of purchasing refined petroleum products and reselling these products to consumers without substantially changing the form of these products.

"Lease" means a crude oil or natural gas producing property.

"Lease Storage Facilities" mean storage tanks used to accumulate crude oil from producing properties prior to first sale or shipment.

"Los Angeles Basin Region" means a geographic area of California that includes the counties of Los Angeles, Orange and Ventura.

"Major Crude Oil Producer" means an operator or firm that produces crude oil in California, California tidelands or the Outer Continental Shelf adjacent to California tidelands in an amount greater than 20,000 barrels during any month of the current or preceding calendar year.

"Major Crude Oil Storer" means a firm or public storage facility, excluding refiners, that owns or operates a tank farm that stores or processes more than 50,000 barrels of crude oil at any time during the current or preceding calendar year.

"Major Crude Oil Transporter" means a firm that owns or operates a trunk pipeline and that has transported 20,000 barrels or more during any one month of the current or preceding calendar year. End users and public storage facilities that transport crude oil only between facilities owned or leased by such end users for their own use are not considered major crude oil transporters.

"Major Petroleum Products Marketer" means a firm that sells or sold 20,000 barrels or more of petroleum products during any month of the current or preceding calendar year, excluding service stations or truck stops. An electric utility shall not be considered a major petroleum products marketer unless it has sold or otherwise disposed of, other than through its own consumption, 20,000 barrels or more of petroleum products per month during any four months of the current or preceding calendar year.

"Major Petroleum Products Storer" means a facility that produced or received into storage a minimum of 50,000 barrels of any combination of petroleum products or oxygenates during any month of the current or preceding calendar year.

"Major Petroleum Products Transporter" means a firm that owns or operates a petroleum product pipeline, trucks, tankers, barges or railroad cars, and that transported 20,000 barrels or more of petroleum products during any month of the current or preceding calendar year. End users that transport products only between facilities owned or leased by such end users for their own use shall not be considered major petroleum products transporters. Public storage facilities that transport petroleum product only between their owned and operated storage, terminal, or warehousing operations shall not be considered major petroleum product transporters.

"Marina Retail Fuel Outlet" means a facility, normally attended by one or more operators, that dispenses refined petroleum products to ultimate consumers for use in recreational or commercial marine craft. A marina retail fuel outlet does not include businesses that dispense marine fuels by the bunkering process.

"Marine Exports" mean crude oil, petroleum products or oxygenates that are transported to destinations outside of California by means of a marine vessel.

"Marine Facility Operator" means an operator of a facility of any kind, other than a marine vessel or tank barge that is used for the purposes of importing, exporting, storing, handling, transferring, processing, refining or transporting crude oil or petroleum products. A Marine Facility Operator does not include the person or entity that owns the land where the marine facility is located unless the person or entity is involved in the operation of the marine facility.

"Marine Fuels Distributor" means one of the following: a firm that owns or operates marine vessels that are used wholly or in part to deliver 20,000 barrels or more of marine fuels during any month of the current or previous year to other marine vessels or a firm that delivers 20,000 barrels or more of marine fuels to marine vessels during any month of the current or previous year from storage tanks rather than from marine vessels. The transfer of these marine fuels is referred to as bunkering.

"Marine Imports" mean crude oil, petroleum products or oxygenates transported to California from destinations originating outside of California by means of a marine vessel.

"Marine Vessel" is a waterborne tanker or barge used to convey crude oil, petroleum products or oxygenates.

"Maximum Storage Tank Capacity" means the maximum volume of crude oil, petroleum product or oxygenate that can be safely discharged into an individual storage tank without exceeding the high level design limits.

"Maximum Throughput" means the maximum liquid volume that may be transported through a pipeline for an indefinite period without damaging any pipeline equipment.

"Mountain Region" means a geographic area in California that includes the counties of Alpine, Amador, Calaveras, El Dorado, Inyo, Lassen, Modoc, Mono, Nevada, Placer, Plumas, Sierra, Siskiyou, Trinity and Tuolumne.

"Non-California Fuel" means finished motor gasoline and No. 2 diesel fuel that does not meet CARB standards sold in California at retail locations that dispense transportation fuels.

"Non-California Fuel Transporter" means a firm that owns or operates tanker trucks that are used wholly or in part to deliver 5,000 gallons or more of fuels that do not meet CARB regulations to retail locations in California during any month of the current or previous year.

"North Coast Region" means a geographic area in California that includes the counties of Del Norte, Humboldt, Lake and Mendocino.

"Northern California Region" means a geographic area in California that includes the counties of Santa Cruz, Santa Clara, San Mateo, San Francisco, Merced, Stanislaus, Alameda, San Joaquin, Tuolumne, Calaveras, Mono, Alpine, Amador, Sacramento, Solano, Napa, Marin, Sonoma, Yolo, El Dorado, Placer, Sutter, Colusa, Lake, Mendocino, Glenn, Butte, Nevada, Sierra, Yuba, Plumas, Tehama, Lassen, Shasta, Trinity, Humboldt, Del Norte, Siskiyou, Mariposa, Madera, Modoc, Contra Costa, San Luis Obispo, Kern, Inyo, Tulare, Kings, Monterey, San Benito and Fresno.

"Number of Sites" means the number of different locations for a specified region of California that receive DTW fuel during a reporting period.

"OPEC" means the Organization of the Petroleum Exporting Countries. The countries belonging to this organization are subdivided into the following geographic regions:

(a) "Middle East OPEC" means the countries of Iran, Iraq, Kuwait, Qatar, Saudi Arabia and the United Arab Emirates.

(b) "Non-Middle East OPEC" means the countries of Algeria, Libya, Nigeria and Venezuela.

"Operator" means any person drilling, maintaining, operating, pumping, or in control of any well as defined by the California Public Utilities Commission or by the California Department of Conservation's Division of Oil and Gas, & Geothermal Resources.

"PIIRA" means the Petroleum Industry Information Reporting Act.

"Pipeline" means a crude oil pipeline system or product pipeline system.

"Pipeline Exports" mean crude oil, petroleum products or oxygenates that are transported to destinations outside of California by means of a pipeline.

"Pipeline Imports" means crude oil, petroleum products or oxygenates that are transported to California from destinations originating outside of California by means of a pipeline.

"Pipeline Gathering System" means a pipeline system that collects crude oil from lease storage facilities and delivers it to a crude oil pipeline system.

"Pipeline Storage Tanks" means a storage facility owned by a pipeline firm and located at the points of origin and at terminals of pipeline segments used to maintain normal pipeline operations.

"PPM" means parts per million.

"Producing Property" means property that produced crude oil during the reporting period in an amount as to require reporting of production to the California Department of Conservation's Division of Oil and Gas, & Geothermal Resources.

"Product Pipeline System" means a system that transports petroleum products from refineries or bulk terminals or marine facilities to other terminals or interconnections with other pipelines; a product pipeline system does not include interconnections within a terminal facility or those lines connecting public storage facilities to one another. A product pipeline system includes all points of origin, terminals, working tank storage capacity and points of interconnection with product pipeline systems operated by others.

"Public Storage Facility" means a public liquid bulk storage, terminal, or warehousing operation for hire in which the owner or operator of the facility has no ownership interest in any of the materials stored on contract with its customers.

"Rail Car" means a railroad car that is used to transport crude oil, petroleum products or oxygenates via a network of railroad tracks.

"Rail Exports" mean crude oil, petroleum products or oxygenates that are transported to destinations outside of California by means of rail.

"Rail Imports" mean crude oil, petroleum products or oxygenates that are transported into California from destinations originating outside of California by means of rail.

"Receipts" mean delivery of crude oil, petroleum products or oxygenates into storage tanks located at the refinery, bulk plant, public storage facility or tank farm for the specified reporting period from tanker truck, marine vessel, rail car or pipeline.

"Refiner" means a firm that produces or alters products or blends to manufacture liquid hydrocarbons from oil and gas field gases, recovers liquefied petroleum gases incident to petroleum refining or produces fuel ethanol and sells those products to resellers, retailers, reseller/retailers or ultimate consumers.

"Refinery" means a facility, regardless of processing capacity, that manufactures transportation fuel products including, but not limited to, finished petroleum products, unfinished products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and oxygenates and fuel ethanol.

"Refinery Fuel Use and Losses During the Month" means all fuel consumed at the reporting facility except non-processing losses (spills, fire losses, contamination, etc.).

"Refinery Storage Facility" means storage located on a refinery site or operated in conjunction with a refinery that primarily receives its petroleum product directly from a refiner.

"Retail Fuel Outlet" means an individual business location that dispenses refined petroleum products or alternative fuels to ultimate consumers.

"Retailer" means a firm that carries on the trade or business of purchasing refined petroleum products and reselling them to ultimate consumers without substantially changing their form.

"Sacramento Valley Region" means a geographic area in California that includes the counties of Butte, Colusa, Glenn, Sacramento, Shasta, Sutter, Tehama, Yolo and Yuba.

"San Diego Region" means a geographic area in California that includes the counties of Imperial and San Diego.

"San Francisco Bay Area Region" means a geographic area in California that includes the counties of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano and Sonoma.

"San Joaquin Valley Region" means a geographic area in California that includes the counties of Fresno, Kern, Kings, Madera, Mariposa, Merced, San Joaquin, Stanislaus and Tulare.

"Service Station" means a retail fuel outlet, normally attended by one or more operators, that dispenses refined petroleum products to ultimate consumers as the sole or predominant activity of their business operation.

"Southern California Region" means a geographic area in California that includes the counties of Santa Barbara, Ventura, Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Imperial.

"Stocks" mean volumes of crude oil, petroleum products or oxygenates (corrected to 60 degrees Fahrenheit less basic sediment and water) of domestic origin held at refineries, bulk plants, public storage facilities or tank farms. Crude oil and petroleum products in transit by

pipeline are excluded. Stocks include foreign stocks held at refineries, bulk plants, public storage facilities or tank farms only after entry through Customs for domestic consumption. Stocks of foreign origin held in bond and/or in transit by pipeline are excluded.

"Support Staff," for purposes of this article, include temporary independent contractors hired by the CEC for the sole purpose of performing PIIRA data entry. Support staff will be subject to all PIIRA confidentiality requirements.

"Tank Farm" means a facility, not available for public storage, used for the storage of crude oils, petroleum products or oxygenates with total combined storage capacity of 50,000 barrels or more which receives crude oil, petroleum products and oxygenates by tanker truck, marine vessel, rail car or pipeline and does not contain lease storage facilities.

"Tank Heel" means the volume of crude oil, petroleum product or oxygenate that remains in a storage tank at the lowest operable level.

"Tanker Truck" means a motorized vehicle with an attached storage vessel that is used to transport crude oil, petroleum products, oxygenates or non-California fuels overland.

"TEOR" means thermally enhanced oil recovery.

"Terminal Operator" means a firm that owns, leases or operates a bulk terminal, tank farm or public storage facility and provided storage services of 50,000 barrels or more of any combination of crude oil, petroleum products or oxygenates during any month of the current or previous year and includes refiners.

"Truck Stop Retail Fuel Outlet" means a facility, normally attended by one or more operators, that is accessible to operators of heavy duty on-road motor vehicles and dispenses refined petroleum products to ultimate consumers as a sole or predominant activity of their business operation.

"Usable Storage Tank Capacity," when used in connection with crude oil or petroleum product pipeline systems, bulk terminals, tank farms and public storage facilities, means the total liquid storage volume less that volume that cannot be used for normal operations (tank heel, basic sediment, and water, corrected to 60 degrees Fahrenheit).

"U.S.C." means United States Code.
Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Section 25354, Public Resources Code.

§ 1364. Reporting Periods.

(a) For purposes of this article, and unless otherwise indicated, each calendar week for the reporting period shall start on Friday for those entities required by section 1366 to file weekly reports. Weekly reports filed pursuant to the article shall be submitted no later than five (5) calendar days following the close of the weekly reporting period for which the information is submitted. Reports shall be deemed submitted as of the date of the postmark, facsimile or electronic transmittal, provided the report is properly and legibly completed.

(b) For purposes of this article, and unless otherwise indicated, each calendar month, beginning with the first calendar month of the year following the effective date of this article, shall

be a reporting period for those entities required by Section 1366 to file monthly reports. Monthly reports filed pursuant to this article shall be submitted not later than the thirtieth (30th) day following the close of the reporting period for which the information is submitted. Reports shall be deemed submitted as of the date of postmark, facsimile or electronic transmittal, provided that the report is properly and legibly completed.

(c) Annual reports required by this article shall be submitted not later than February 15 of each year and shall contain the information required by Section 1366 for the preceding calendar year.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Section 25354, Public Resources Code.

§ 1365.1. Information Requirements; General Reporting Requirements.

Each firm submitting one or more Petroleum Information Reports pursuant to the provisions of this article shall include the following information at the beginning of each report:

(1) The name of the company;

(2) The company address;

(3) The name and telephone number of one or more persons to whom questions regarding the company's report may be directed;

(4) The name of every subsidiary, division, joint venture, or other company for which the company is reporting; and

(5) The reporting period and reporting date for which the information is being submitted.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Section 25354, Public Resources Code.

§ 1365.2. Information Requirements; Other Reporting Requirements.

The CEC may need to obtain PIIRA information for the performance of its responsibilities that is not reported through weekly, monthly or annual reporting requirements pursuant to Public Resources Code section 25354(f). In such an event, the CEC may solicit for this information through facsimile, electronic mail, telephone, letter, or conversation. Information obtained in this manner will be subject to the provisions of Public Resources Code section 25362 and afforded the same protection as other data provided under PIIRA pursuant to Public Resources Code Section 25364(b).

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 25354, 25362 and 25364, Public Resources Code.

§ 1366. Requirement to File.

(a) Each refiner, as defined in Section 1363.2, shall file weekly reports for each California refinery containing all of the information specified in Appendix A, Section I.

(b) Each refiner, importer, exporter and major petroleum products transporter, as defined in Section 1363.2, shall file weekly reports containing all of the information specified in Appendix A, Section II.

(c) Each refiner, terminal operator and major petroleum products storer, as defined in Section 1363.2, shall file weekly reports containing all of the information specified in Appendix A, Section III.

(d) Each refiner, as defined in Section 1363.2, shall file weekly reports containing all of the information specified in Appendix A, Section IV.

(e) Each refiner, as defined in Section 1363.2, shall file monthly reports for each California refinery containing all of the information specified in Appendix B, Section I.

(f) Each refiner, as defined in Section 1363.2, shall file monthly reports for each California refinery containing all of the information specified in Appendix B, Section II.

(g) Each refiner, importer, exporter, non-California fuel transporter, marine fuels distributor and major petroleum products transporter, as defined in Section 1363.2, shall file monthly reports containing all of the information specified in Appendix B, Section III.

(h) Each refiner, terminal operator and major petroleum products storer, as defined in Section 1363.2, shall file monthly reports containing all of the information specified in Appendix B, Section IV.

(i) Each refiner, as defined in Section 1363.2, shall file monthly reports containing all of the information specified in Appendix B, Section V.

(j) Each refiner as defined in Section 1363.2, shall file monthly reports containing all of the information specified in Appendix B, Section VI.

(k) Each major petroleum products marketer, as defined in Section 1363.2, required to file Form EIA782B published by the United States Department of Energy shall file monthly reports containing all of the information specified in Appendix B, Section VI.

(l) Each refiner, as defined in Section 1363.2, shall file annual reports containing all of the information specified in Appendix C, Section I.

(m) Each refiner, terminal operator and major petroleum products storer, as defined in Section 1363.2, shall file annual reports containing all of the information specified in Appendix C, Section II.

(n) Each major crude oil transporter, as defined in Section 1363.2, shall file annual reports containing all of the information specified in Appendix C, Section III, for each crude oil pipeline system.

(o) Each major petroleum products transporter, as defined in Section 1363.2, shall file annual reports containing all of the information specified in Appendix C, Section IV, for each petroleum product pipeline system.

(p) Each major crude oil producer, as defined in Section 1363.2, shall file annual reports containing all of the information specified in Appendix C, Section V.

(q) Each refiner, major petroleum products marketer and independent retail fuel outlet operator, as defined in Section 1363.2, shall file annual reports containing all of the information specified in Appendix C, Section VI.

(r) Each refiner, as defined in Section 1363.2, shall file annual reports containing all of the information specified in Appendix C, Section VII.

(s) Each refiner, terminal operator, major petroleum products storer and marine facility operator, as defined in Section 1363.2, shall file annual reports containing all of the information specified in Appendix C, Section VIII.

(t) Unless otherwise indicated, if a company, by its various activities, satisfies two or more of the definitions in Section 1363.2, it shall file a separate report for each such activity.

(u) Any company required by this article to submit Petroleum Information Reports, which company contains divisions, departments, or subsidiary companies, shall report on behalf of all such divisions, departments, or subsidiaries, provided that such divisions, departments, or subsidiaries would otherwise be required to report pursuant to the provisions of this article.

(v) All reports required by this section shall be on such form and in such format as the Executive Director may require, except as provided below.

(w) Any person required by this article to submit Petroleum Information Reports may in lieu thereof, submit a report made to any other government agency, provided that the requirements of Public Resources Code Section 25354(g) are satisfied, provided that the Executive Director of the CEC approves in writing to the applicant that the alternative submittal of substitute report information is acceptable and provided that such substitute report is expressed in identical units to those required by this article.

(x) Any person or company required by this article to submit Petroleum Information Reports in a specific form designated by the CEC may in lieu thereof, electronically submit the required information in a different format, provided that the Executive Director of the CEC approves in writing to the applicant that the alternative format of submittal is acceptable.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Section 25354(a), (b), (f), Public Resources Code.

§ 1367. Form and Format of Reports.

The Executive Director of the CEC may specify the format for the various reports required by this article. The Executive Director of the CEC may additionally provide forms or other instructions to facilitate the filing or analysis of the information required by this article. The Executive Director of the CEC shall provide thirty days notice prior to specifying or modifying any form or format.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Section 25354, Public Resources Code.

§ 1368.1. Financial Information.

Each major oil producer, refiner, and major marketer required by the United States Government to file a SEC 10-K form shall annually submit to the CEC the following financial information:

(1) A copy of the firm's most recent annual report, with all, supplements, to be submitted concurrently with the release of such documents to the company's shareholders; and

(2) Report No. SEC 10-K, submitted annually to the Securities and Exchange Commission, to be submitted to the CEC concurrently with submission to the Securities and Exchange Commission.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 25356(a) and 25358(b) and (c), Public Resources Code.

§ 1369. Duty to Preserve Data.

Every company that is required by Section 25354 and this article to submit records to the CEC shall preserve such data and records as are presently within its control and are necessary to compile all information required to be supplied under this article. The company shall be relieved of the duty to preserve the records and data pertaining to any week, month and year for which it has supplied the CEC with the information specified in this article.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Section 25354, Public Resources Code.

§ 1370. Confidential Information.

(a) CEC staff and support staff assigned to collect or analyze data submitted in confidence, pursuant to this article, will hold unaggregated PIIRA data confidential.

(b) Any person required by the provisions of this article to submit Petroleum Information Reports may request that data or information be held in confidence. Such requests shall identify on an item-by-item basis, the specific data or information to be kept confidential. The CEC shall treat the specific data or information for which confidentiality has been requested in the manner described in Public Resources Code Section 25364.

(c) Any person, including the staff of the CEC, may request unaggregated data contained in any Petroleum Information Report, and for which confidentiality has been requested, be publicly disclosed. Whenever the CEC receives a request for disclosure of unaggregated data or information for which confidentiality has been requested, or otherwise proposes to publicly disclose unaggregated data or information for which confidentiality has been requested, the CEC shall notify in writing the person submitting the information of such request or proposal.

(d) Upon receipt of notice that a request or proposal for disclosure has been made, the person claiming confidentiality shall respond in writing within 10 working days with a statement, on an item-by-item basis, describing why it considers the information concerned to be a trade secret or other proprietary information, whether such information is customarily treated as confidential by its companies and the industry, and the potential for and type of competitive hardship that would result from disclosure of the information. The person claiming confidentiality

may include in its written response a request that a Committee of the CEC conduct a closed hearing on the request or proposal for disclosure.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Section 25364, Public Resources Code.

§ 1371. Failure to Provide Information.

The CEC may, after notifying any person of the failure to provide information pursuant to Sections 1361-1369, take such action to secure the information as is authorized by any provision of law, including, but not limited to, Public Resources Code Section 25362.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 25358(c) and 25362, Public Resources Code.

Appendix A

Information Requirements for Monthly Reports

I. California Refiners' Weekly Reports shall contain all of the information specified below:

A. All of the information specified on the form EIA800 published by the United States Department of Energy.

B. All of the information specified on the CEC form W800. Specifically, net production and stocks of motor gasolines, blending components and distillate fuel oils..

Note: Authority cited: Sections 25213, 25218(e) and 25354, Public Resources Code. Reference: Section 25354, Public Resources Code.

II. California Imports, Exports, and Intrastate Movements Weekly Reports shall contain all of the information specified on the CEC form W700. Specifically, the information detailed below in subsections A through E for crude oil, finished motor gasoline, gasoline blendstocks, oxygenates, distillates, and aviation fuels.

A. Imports into California of crude oil, petroleum products and oxygenates by marine vessel for each weekly reporting period in thousands of barrels by specific product type, discharge date and California discharge port.

B. Exports from California of crude oil, petroleum products and oxygenates by marine vessel for each weekly reporting period in thousands of barrels by specific product type, load date and California load port.

C. Exports from California of crude oil, petroleum products and oxygenates by pipeline for each weekly reporting period in thousands of barrels by each specific product type, product regrades, product code, pipeline name, and delivery terminal name.

D. Imports into California of crude oil, petroleum products and oxygenates by rail for each weekly reporting period in thousands of barrels by specific product type, discharge date and discharge location. Imported volumes from individual rail cars of identical product type and identical point of origin can be aggregated if the product is discharged on the same date.

E. Exports from California of crude oil, petroleum products and oxygenates by rail for each weekly reporting period in thousands of barrels by specific product type, load date and California load location. Exported volumes from individual rail cars of identical product type and identical intended destination can be aggregated if the product is loaded on the same date.

Note: Authority cited: Sections 25213, 25218(e) and 25354, Public Resources Code. Reference: Section 25354(i), Public Resources Code.

III. California Major Petroleum Product Storer and Terminal Weekly Reports shall contain all of the information specified on CEC form W08. Specifically the information detailed below in subsections A through C for crude oil, finished gasoline blended with ethanol, other motor gasolines, gasoline blendstocks, oxygenates, distillates, aviation fuels, liquefied petroleum gases, crude oil, and other petroleum products.

A. Production of finished motor gasoline blended with ethanol by weekly reporting period, in thousands of barrels for each California terminal location, including California refineries that blend such type of motor gasoline for dispensing at truck loading racks within the refinery gate.

B. Production of finished motor gasoline blended with ethanol manufactured for use in Arizona and Nevada, by weekly reporting period, in thousands of barrels for each California terminal location, whereby such type of motor gasoline is dispensed for purpose of export by truck to destinations in either Arizona or Nevada.

C. Receipts and ending inventories of specified petroleum products for each weekly reporting period, in thousands of barrels, for each California terminal location.

Note: Authority cited: Sections 25213, 25218(e) and 25354, Public Resources Code. Reference: Section 25354(i), Public Resources Code.

IV. California Dealer Tank Wagon Price Weekly Reports shall contain all of the information specified on CEC form W900. Specifically, these reports shall contain the information detailed below in subsections A through D for each grade (regular, mid-grade and premium) of finished gasoline.

A. Weighted average dealer tank wagon price that is based on all wholesale transactions for gasoline delivered to final destination during the reporting period for each specified region of California. The delivered prices used in the calculation, referred to as "weighted average dealer tank wagon prices," shall reflect the volume-weighted dealer tank wagon (DTW) prices for each specific region of California for the reporting period.

B. Number of individual delivery sites used in the calculation for the reporting period, rather than the total number of deliveries, for each specified region of California. A refiner shall be exempt from supplying the required information for a specific region of California if that refiner delivers to 10 sites or less during any reporting period.

C. The high and low DTW prices reported for each grade of gasoline for each region specified of California during the reporting period.

D. Volume of finished gasoline, in thousands of gallons, delivered within each of the regions of California defined by Section 1363.2 during the reporting period.

Note: Authority cited: Sections 25213, 25218(e) and 25354, Public Resources Code. Reference: Section 25354(i), Public Resources Code.

Appendix B

Information Requirements for Monthly Reports

I. California Refiners' Monthly Reports shall contain all of the information specified below:

A. All of the information specified on Form EIA810 published by the United States Department of Energy.

B. All of the information specified on CEC Form M810. Specifically, stocks at the beginning and end of the month and receipts, inputs, production and shipments, on-site fuel uses and losses of motor gasolines, blending components and distillate fuel oils during the month.

Note: Authority cited: Sections 25213, 25218(e) and 25354, Public Resources Code. Reference: Section 25354(h) and (i), Public Resources Code.

II. California Refinery Monthly Fuel Use Reports shall contain all of the information specified on CEC form M13. Specifically, this report shall contain the information detailed below in subsections A through F for fuel, electricity, and steam consumed for all purposes at each California refinery.

A. Quantity of fuel, both purchased and produced, that is consumed each month for every California refinery. Fuels shall consist of crude oil, distillate type fuel oil, residual type fuel oil, liquefied petroleum gas, still gas, marketable petroleum coke, and catalyst petroleum coke. These fuels shall be reported in units of barrels.

B. Quantity of purchased natural gas each month for every California refinery. Natural gas shall be reported in units of thousands of cubic feet.

C. Quantity of purchased coal each month for every California refinery. Coal shall be reported in units of short tons.

D. Quantity of electricity purchased each month for every California refinery. Electricity shall be reported in units of thousands of kWh. Electricity generated by the refinery and consumed at the refinery shall not be included in this monthly total.

E. Quantity of purchased steam that is consumed each month for every California refinery. Steam shall be reported in units of thousands of pounds. Steam produced by the refinery and consumed at the refinery shall not be included in this monthly total.

F. Quantity of other types of purchased fuels, not specified in subsections A through E, that are consumed each month for every California refinery. These other fuels shall be reported in units of measurement that are in common usage for each fuel.

Note: Authority cited: Sections 25213, 25218(e) and 25354, Public Resources Code. Reference: Section 25354(b), Public Resources Code.

III. California Imports, Exports, and Intrastate Movements Monthly Reports shall contain all of the information specified on CEC form M700. Specifically, this report shall contain the information detailed below in subsections A through J for finished motor gasoline, gasoline blendstocks, oxygenates, distillates, non-California fuels, aviation fuels, liquefied petroleum gases, crude oil, and other petroleum products.

A. Imports into California of crude oil, petroleum products and oxygenates by marine vessel for each monthly reporting period, in thousands of barrels, by specific product type, discharge date and California discharge port. The port of origin, country/state of origin and name of the vessel used to import each specific cargo of crude oil, petroleum product or oxygenate shall also be provided.

B. Exports from California of crude oil, petroleum products and oxygenates by marine vessel for each monthly reporting period, in thousands of barrels, by specific product type, load date and California load port. The intended destination port, destination country/state and name of the vessel used to export each specific cargo of crude oil, petroleum product or oxygenate shall also be provided.

C. Intrastate movements within California of crude oil, petroleum products and oxygenates by marine vessel, for each monthly reporting period, in thousands of barrels. For each outbound intrastate marine movement that is shipped, the vessel name, load date, California load port and intended California destination port shall be provided for each specific product type. For each inbound intrastate marine movement that is received, the vessel name, discharge date, California discharge port and California port(s) of origin for the cargo shall be provided for each specific product type.

D. Exports from California of crude oil, petroleum products and oxygenates by pipeline for each monthly reporting period, in thousands of barrels, by each specific product type, product code, pipeline name, and delivery terminal name. Product re-grades should also be provided, if applicable.

E. Distribution of non-California fuels by tanker truck for each monthly reporting period in thousands of gallons by specific product type, delivery date, California delivery city and business name of the delivery location. Distribution of non-California fuels obtained from outside California shall be deemed an import and shall also include the city of origin for the non-California fuel. Distribution of non-California fuels obtained from inside California shall be deemed an intrastate movement and shall also include the California city of origin.

F. Imports into California of crude oil, petroleum products and oxygenates by tanker truck for each monthly reporting period in thousands of gallons by each specific product type, discharge date, discharge location, country of origin and state of origin.

G. Exports from California of crude oil, petroleum products and oxygenates by truck for each monthly reporting period, in thousands of gallons, by each specific product type, load date, load location, country of destination and state of destination. Exported volumes from individual trucks of identical product type and identical intended destination can be aggregated if the product is loaded on the same date.

H. Distribution of marine fuels from one marine vessel to another marine vessel or from storage tanks to marine vessels, (referred to as bunkering) for each monthly reporting period in thousands of barrels. For each bunkering movement, the vessel name, load date, California load port, flag designation of receipt vessel and discharge location shall be provided for each specific type of marine fuel.

I. Imports into California of crude oil, petroleum products and oxygenates by rail for each monthly reporting period, in thousands of barrels, by each specific product type, discharge date, discharge location, country of origin and state of origin. Imported volumes from individual rail cars of identical product type and identical point of origin can be aggregated if the product is discharged on the same date.

J. Exports from California of crude oil, petroleum products and oxygenates by rail for each monthly reporting period, in thousands of barrels, by each specific product type, load date, load location, intended country of destination and intended state of destination. Exported volumes from individual rail cars of identical product type and identical intended destination can be aggregated if the product is loaded on the same date.

Note: Authority cited: Sections 25213, 25218(e) and 25354, Public Resources Code. Reference: Section 25354(a), Public Resources Code.

IV. California Major Petroleum Product Storer and Terminal Monthly Reports shall contain all of the information specified on CEC form M08. Specifically, this report shall contain the information detailed below in subsections A through C, for finished gasoline blended with ethanol, other motor gasoline, gasoline blendstocks, oxygenates, distillates, aviation fuels, marine fuels, liquefied petroleum gases, crude oil, and other petroleum products.

A. Production of finished motor gasoline blended with ethanol, by monthly reporting period, in thousands of barrels, for each California terminal location, including California refineries that blend such type of motor gasoline for dispensing at truck loading racks within the refinery gate.

B. Production of finished motor gasoline blended with ethanol manufactured for use in Arizona and Nevada by monthly reporting period, in thousands of barrels, for each California terminal location. This requirement only applies to motor gasoline that is dispensed for purpose of export by truck to destinations in either Arizona or Nevada.

C. Receipts and ending inventories of specified petroleum products for each monthly reporting period, in thousands of barrels, for each California terminal location.

Note: Authority cited: Sections 25213, 25218(e) and 25354, Public Resources Code. Reference: Section 25354(b)(2) and (e), Public Resources Code.

V. California Dealer Tank Wagon Price Monthly Reports shall contain all of the information specified on CEC form M900. Specifically, this report shall contain the information detailed below in subsections A through D, for each grade (regular, mid-grade and premium) of finished gasoline.

A. Weighted average adjusted dealer tank wagon price that is based on all wholesale transactions for gasoline delivered to final destination during the reporting period for each specified region of California. The delivered prices used in the calculation, referred to as "adjusted dealer tank wagon prices", shall reflect the "net cost" to the retail dealer or franchisee such that all rebates or discounts are subtracted from the original dealer tank wagon (DTW) price. These average adjusted DTW prices shall be volume-weighted calculations for each specified region of California, by each grade of gasoline, during the reporting period.

B. Number of individual delivery sites used in the calculation for the reporting period, rather than the total number of deliveries, for each specified region of California. A refiner shall be exempt from supplying the required information for a specific region of California that the refiner delivers to 10 sites or less during any reporting period.

C. The high and low DTW prices reported for each grade of gasoline, by each specific region of California, during the reporting period.

D. Volume of finished gasoline (in thousands of gallons) delivered within each of the regions of California defined by Section 1363.2 during the reporting period.

Note: Authority cited: Sections 25213, 25218(e) and 25354, Public Resources Code. Reference: Section 25354(h), Public Resources Code.

VI. California Monthly Sales Reports shall contain all of the information specified on CEC form M782B. Specifically, this report shall contain the information detailed below in subsections A through H for specified petroleum products.

A. Volumes and average price of each grade of finished motor gasoline dispensed during the reporting period through retail sales transactions at company operated outlets and retail sales to other end users.

B. Volumes and average price of each grade of finished motor gasoline dispensed during the reporting period through dealer tank wagon sales transactions.

C. Volumes and average price of each grade of finished motor gasoline dispensed during the reporting period through branded, unbranded and bulk wholesale sales transactions.

D. Volumes and average price of each grade of CARBOB dispensed during the reporting period through bulk wholesale sale transactions.

E. Volumes and average price of specified distillates, propane and aviation fuels dispensed during the reporting period, through retail sales transactions at company operated-outlets and retail sales transactions, to residential, commercial-institutional, and industrial end users.

F. Volumes and average price of specified distillates, propane and aviation fuels dispensed during the reporting period through branded, unbranded and bulk wholesale sales transactions.

G. Volumes and average price of propane dispensed during the reporting period through wholesale sale transactions to petrochemical end users.

H. Volumes and average price of specified residual fuels dispensed during the reporting period through retail and wholesale sales transactions.

Note: Authority cited: Sections 25213, 25218(e) and 25354, Public Resources Code. Reference: Section 25354(h), Public Resources Code.

Appendix C

Information Requirements for Annual Reports

I. California Refiners' Annual Reports shall contain the information specified below. Unless otherwise indicated, all quantities of crude oil, oxygenates or petroleum products shall be expressed in thousands of barrels.

A. All of the information on refinery capacity from Form EIA820 published by the United States Department of Energy.

B. All of the information necessary to complete the California Refiner Annual Report (CEC form A04) as specified in this subsection. Information on the method of shipment of motor gasoline, aviation fuels, distillate fuels, residual fuels, and unfinished oils, expressed as the percentage of total shipments of each such product transported by pipeline, tanker, barge, truck, and railroad. The total of all such percentages shall equal one hundred percent for each product.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Section 25354(b)(5), Public Resources Code.

II. California Major Petroleum Product Storer Annual Tank Reports shall contain all of the information specified on CEC form A08. Specifically, these reports shall contain all of the information detailed below in subsections A through B, for each refinery and terminal location.

A. For each storage location the reporting party shall identify each individual tank, along with the tank type, product type in storage at the time of the report, physical maximum capacity, tank heel and the net usable capacity.

B. Product types shall include crude oil, unfinished oils, finished motor gasoline, gasoline blendstocks, oxygenates, distillates, aviation fuels, marine fuels, liquefied petroleum gases and other petroleum products.

Note: Authority cited: Sections 25213, 25218(e) and 25354, Public Resources Code. Reference: Section 25354(b)(2), Public Resources Code.

III. California Major Crude Oil Transporters' Annual Reports shall contain all of the information specified on CEC form A03. Specifically, these reports shall contain all of the information detailed below in subsections A through F for each separate crude oil pipeline system:

A. Pipeline storage tank capacity, subcategorized by:

1. Total storage volume; and

2. Usable storage tank capacity.

B. Pipeline utilization information as follows:

1. Maximum throughput (nominal pipeline capacity) in thousands of barrels per stream day;

2. Average throughput in thousands of barrels per calendar day.

C. Method of receipt to each crude oil pipeline system (from pipeline gathering systems, pipeline systems operated by others, tankers or barges.

D. Deliveries from each crude oil pipeline system (to refineries, tankers, barges, pipeline systems operated by others, and out of state receivers.

E. A map(s) in editable electronic form formatted to print no smaller than 11 inches by 17 inches and a description of each crude oil pipeline system, including oil field flow lines, pipeline gathering systems, all pipeline diameters, the location and a description of all points of origin and all terminals and points of interconnections with pipeline systems operated by others, and an indication of whether the pipelines are heated or unheated. The description shall contain such additional information as the reporting firm deems relevant to a thorough understanding of the pipeline system.

F. A submittal of electronic information for each pipeline system in a geographic information system (GIS) format.

Note: Authority cited: Sections 25213, 25218(e) and 25354, Public Resources Code. Reference: Section 25354(b)(1), Public Resources Code.

IV. California Major Petroleum Products Transporters' Annual Reports shall contain all of the information specified in CEC form A06. Specifically, these reports shall contain all of the information detailed below in subsections A through E for each separate petroleum product pipeline system.

A. Pipeline storage tank capacity subcategorized by:

1. Total storage volume; and

2. Usable storage tank capacity.

B. Pipeline utilization information for all petroleum products transported as follows:

1. Maximum throughput (nominal pipeline capacity) in thousands of barrels per stream day,

2. Average throughput in thousands of barrels per calendar day.

C. Location of origin of receipts (from refinery storage facilities or other product pipelines), and a description of shipments from the pipeline system (to California terminals, to other product pipeline systems or to out-of-state purchasers) for motor gasoline, aviation fuels, distillates, and residual fuels.

D. A map(s) in editable electronic form formatted to print no smaller than 11 inches by 17 inches and a description of each petroleum product pipeline system, including the location of all points of origin, all terminals and points of interconnection with other pipelines, and such other information as the reporting firm deems relevant to a thorough understanding of the pipeline system.

E. A submittal of electronic information for each pipeline system in a geographic information system (GIS) format.

Note: Authority cited: Sections 25213, 25218(e) and 25354, Public Resources Code. Reference: Section 25354(b)(1), Public Resources Code.

V. California Major Crude Oil Producers' Annual TEOR Fuel Consumption and TEOR Steam Use Reports shall contain all of the information specified on CEC forms A14 and A14X. Specifically, these reports shall contain the monthly use, as fuel, of crude oil and natural gas (including the quantity of steam) for thermally enhanced oil recovery in the following oil fields:

Arroyo Grande
Belridge North
Belridge South
Casmalia
Cat Canyon
Coalinga
Cymric
Edison
Fruitvale
Guadalupe
Kern Bluff
Kern Front
Kern River
Lost Hills
McKittrick
Midway Sunset
Mt. Poso
Newport, West
Oxnard
Placentia
Poso Creek
San Ardo
Santa Maria Valley
Huntington Beach

Wilmington
Yorba Linda
Combined usage for all other fields

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Section 25354(b)(3), Public Resources Code.

VI. California Retail Fuel Outlet Survey Annual Report shall contain all of the information specified on CEC form A15. Specifically, these reports shall contain information on retail fuel outlets owned or leased by each company as detailed below in subsections A through E.

A. Each reporting company shall provide the following general business information for each retail fuel outlet; brand name, facility name (if unbranded), physical address, telephone number and normal hours of operation.

B. Each reporting company shall provide type of ownership designation for each retail fuel outlet, such as: company owned/company operated, company owned/dealer operated, dealer owned/dealer operated for all branded outlets and independently owned and operated for all unbranded outlets.

C. Each reporting company shall provide a general operation description information for each retail fuel outlet, such as: service station, cardlock facility, hypermart, marina, airport or truck stop.

D. Each reporting company shall provide fuel-related information for each retail fuel outlet, such as: number and capacity of fuel storage tanks and total sales by each fuel type and grade for the reporting period.

E. Each reporting company shall provide business amenity information for each retail fuel outlet, such as the presence of a: kiosk, convenience store, restaurant/fast food outlet, supermarket/general store, pharmacy, discount store, automotive repair service bay or car wash.

Note: Authority cited: Section 25354, Public Resources Code. Reference: Section 25354(f), Public Resources Code.

VII. Each Refiner shall submit Flow Diagrams for each of their facilities in California on an annual basis. Flow Diagrams shall be submitted in an editable electronic form formatted to print no smaller than 11 by 17 inches. Flow Diagrams shall provide a diagram of the refinery that illustrates the number, diversity and interconnection of individual process units at each refinery location. Flow diagrams are not intended to be spatially accurate. Minor ancillary equipment associated with each process unit (such as pumps, blowers, meters, etc.) are not required to be depicted. The Flow Diagram submitted for each refinery location shall include an attachment that contains an explanation of all abbreviations and acronyms used in the Flow Diagram. The attachment to the Flow Diagram shall also include all information relevant for a general understanding of the refinery. In addition, each Flow Diagram shall also contain information detailed below in subsections A through E.

A. Individual process unit identification and interconnection to other process units.

B. Maximum throughput capacity during the previous calendar year in thousands of barrels per stream day for each process unit depicted.

C. Actual throughput capacity during the previous calendar year in thousands of barrels per calendar day for each process unit depicted.

D. Interconnections depicted between process units shall include identification of all intermediate and final petroleum products, including inputs of petroleum products external from the refinery.

E. Average flow rates during the previous calendar year in thousands of barrels per calendar day for each interconnection depicted between process units.

Note: Authority cited: Section 25354, Public Resources Code. Reference: Section 25354(f), Public Resources Code.

VIII. Each refiner, terminal operator, major petroleum products storer and marine facility operator, shall submit Site Maps for each of their facilities in California on an annual basis. Site Maps shall be submitted in an editable electronic form formatted to print no smaller than 11 by 17 inches. Each Site Map shall provide a plan view of their facility that illustrates all structures, roadways, process equipment, storage tanks, and associated facility information that is relevant to the site. Site maps are intended to be spatially accurate and shall include a scale for reference. The Site Map submitted for each facility shall include an attachment that contains an explanation of all abbreviations and acronyms used in the Site Map. In addition, each Site Map shall also contain information detailed below in subsections A through D.

A. Identification of all process units at each refinery location and a separate written description of the primary function of each process unit.

B. Identification of all major individual ancillary equipment at each refinery location (such as cogeneration facilities) and a separate written description of the primary function of all ancillary equipment.

C. Identification of all storage tanks at each terminal and tank farm location that correspond with the CEC form A08.

D. Identification of all storage tanks and major marine equipment at each marine facility. Major marine equipment shall include loading arms, on-shore pumps, main petroleum pipelines, and any other equipment or conveyance relevant to a thorough understanding of the marine facility.

Note: Authority cited: Section 25354, Public Resources Code. Reference: Section 25354(b) and (f), Public Resources Code.

Article 4. Wind Performance Reporting Systems

§ 1381. Title and Purpose.

The purpose of this article is to specify performance reporting requirements for operators of specified wind energy projects and for entities which purchase electricity from the projects and to identify requirements for the Commission to publish the information.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 25216.5(d), 25601(c) and 25605, Public Resources Code.

§ 1382. Definitions.

For the purposes of this article, the following definitions shall apply unless the Commission has clearly indicated otherwise in these regulations:

(a) "Contingency Costs": the costs which may be paid by investors after the initial investment, but which are not paid out of project revenues. Contingency costs may include such costs as turbine repairs or annual insurance fees paid during the reporting year.

(b) "Cumulative Number of Turbines Installed": the cumulative total number of turbines of a given model installed by the end of the reporting period.

(c) "Electricity Produced (kWh)": the total kilowatt hours actually produced by all of the turbines of a particular turbine model contained within the wind project where the electricity is delivered to a wind power purchaser for sale during the reporting period.

(d) "Name of Wind Project": the name used for the project in any prospectus, offering memorandum, or sales literature.

(e) "Number of Turbines Installed During Reporting Period": the number of additional turbines installed during the calendar quarter of the reporting period.

(f) "Project Cost": the total cost of the turbines installed during the reporting period Project cost includes all debt and equity investment in the project (including non-recourse notes) and should be comparable to the project cost shown in the offering memorandum, prospectus or sales literature published by the developer.

(g) "Projected Annual Production Per Turbine (kWh)": the annual average kWh production, by model, predicted by the developer in its prospectus, offering memorandum, or sales literature. This figure may be revised annually prior to the first reporting quarter of each year and shall be based upon average site specific wind distributions and the wind turbine power curves.

(h) "Projected Quarterly Production Per Turbine (kWh)": the quarterly breakdown of the Projected Annual Production Per Turbine.

(*i*) "Rotor (M^2)": the rotor swept area in square meters for each turbine model.

(j) "Size (kW)": the turbine manufacturer's published kW rating at a specific miles per hour (mph) with wind speed shown in parentheses.

(k) "Turbine Model": the common or manufacturer's name for the turbine if that is a commonly used term for the model of a specific rotor (M^2) and size (kW).

(l) "Wind Power Purchaser": any electricity utility or other entity which purchases electricity from a wind project, as defined in this section.

(m) "Wind project": one or more wind turbine generators installed in California with a combined rated capacity of 100 kW or more, the electricity from which is sold to another party.

(n) "Wind Project Operator": any developer or operator who directly receives payments for electricity from the wind power purchaser.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 25216.5(d), 25601(c) and 25605, Public Resources Code.

§ 1383. Reporting Period.

For the purposes of this article, and unless otherwise indicated, the reporting period shall be each calendar quarter, beginning with the first quarter following the effective date of this article. Quarterly reports filed pursuant to this article shall be submitted not later than the forty-fifth day following the close of each reporting period. Reports shall be deemed submitted as of the date of postmark, provided that the report is properly and legibly completed.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 25216.5(d, 25601(c) and 25605, Public Resources Code.

§ 1384. Requirements to File.

The information required by this article shall be submitted to the Commission by wind project operators and wind power purchasers. Reports shall be made on forms prescribed by order of the Commission and according to instructions accompanying the forms. A copy of the wind project prospectus, offering memorandum, and other sales literature shall accompany the initial report. All reports must be verified by a responsible official of the firm filing the report. Requests for confidentiality may be filed pursuant to 20 Cal. Admin. Code Section 2501 et seq.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 25216.5(d), 25601(c) and 25605, Public Resources Code.

§ 1385. Information Requirements: Wind Project Operators.

Each operator firm submitting information pursuant to the provisions of this article shall include the following:

(1) Name of wind project

(2) Name and address of operator

(3) Name and phone number of contact person at operator's firm

(4) Operator's name as shown on power purchase contract (if different than 2 above)

(5) Name of wind power purchaser

(6) Purchase contract number

(7) Resource area and county

(8) Dates of reporting period

(9) Turbine model

(10) Cumulative number of turbines installed

(11) Number of turbines installed during reporting period

(12) Rotor (M^2)

(13) Size (kW) at stated wind speed

(14) Project cost

(15) Additional project contingency costs for which investors may be responsible

(16) Projected quarterly production per turbine (kWh)

(17) Projected annual production per turbine (kWh)

(18) Electricity produced (kWh)

(19) Turbine manufacturer's name and address

(20) Operator comments, if any.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 25216.5(d), 25601(c) and 25605, Public Resources Code.

§ 1386. Information Requirement: Wind Power Purchaser.

Each wind power purchaser submitting information pursuant to the provisions of this article shall include the following:

(1) Name of purchaser's firm

(2) Name and phone number of contact person at purchaser's firm

(3) Date of report

(4) Name of wind project operator

(5) Number of contract with wind project operator

(6) kWh's produced during reporting period

(7) Dates of reporting period

(8) The maximum MW's which the operator can deliver to the purchaser as specified in the power sales agreement.

(9) Purchaser comments, if any.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 25216.5(d), 25601(c) and 25605, Public Resources Code.

§ 1387. Publication of Data.

The Commission staff shall compile and distribute, on a quarterly basis, the information reported by wind project operators and purchasers. Cost data will be published by the Commission in an aggregated form to the extent necessary to assure confidentiality. The final publication of each year shall combine the performance data for that year. The publication shall designate the name of any wind project operator from whom performance data is not received.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 25216.5(d), 25601(c) and 25605, Public Resources Code.

§ 1388. Failure to Provide Information.

The Commission may, after notifying any person of the failure to provide information pursuant to this article, take such action to secure the information as is authorized by any provision of law, including, but not limited to, Public Resources Code Section 25900.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 25216.5(d), 25601(c), 25605(e) and 25900, Public Resources Code.

§ 1389. Exemptions.

Operators of wind projects of less than 100 kW rated capacity or operators who do not offer electricity for sale are exempt from this article.
Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 25216.5(d), 25601(c) and 25605, Public Resources Code.

Article 5. Electricity Generation Source Disclosure

§ 1390. Scope.

The regulations in this Article implement the disclosure and reporting requirements established in Article 14 (commencing with section 398.1) of Chapter 2.3 of Part 1 of Division 1 of the Public Utilities Code.

Note: Authority cited: Section 25213, Public Resources Code; and Sections 398.3-398.5, Public Utilities Code. Reference: Sections 25216, 25216.5, Public Resources Code; and Sections 398.1-398.5, Public Utilities Code.

§ 1391. Definitions.

(a) “Balancing authority” means the responsible entity located within California that integrates resource plans ahead of time, maintains load-interchange generation balance within a balancing authority area, and supports interconnection frequency in real time.

(b) “Electric service product" means the electrical energy produced by a generating facility that a retail seller offers to sell to consumers in California under terms and conditions specific to an offer or to a tariff. It does not include the provision of electric services on site, sold through an over-the-fence transaction, as defined in Section 218 of the Public Utilities Code, or sold or transferred to an affiliate, as defined in subdivision (a) of Section 372 of the Public Utilities Code.

(c) "Eligible renewable" means electrical generation from a facility that is certified pursuant to the Renewables Portfolio Standard Program (Article 16 (commencing with Section 399.11)) of the Public Utilities Code, and uses one of the following fuel types:

(1) Biomass and biowaste.

(2) Geothermal.

(3) Eligible hydroelectric.

(4) Solar.

(5) Wind.

(d) "Energy Commission" means the State Energy Resources Conservation and Development Commission.

(e) "Facility" means one or all generating units at an electric generating station.

(f) "Fuel type attribute" means the fuel or technology type used to generate a quantity of kilowatt hours, specified using the categories identified in subsections (d)(1)(2) and of section 1393, and subsection (b)(3)(C) of section 1392.

(g) “Generating facility output” means the electrical energy and/or fuel type attribute, denominated in kilowatt hours, that is produced by a specific generating facility.

(h) “Generating unit” means a device that converts mechanical, chemical, electromagnetic, or thermal energy into electricity and that:

(1) has an electric output capable of being separately identified and metered;

(2) is located within the Western Electricity Coordinating Council interconnected grid; and

(3) is capable of producing electrical energy in excess of a generation station's internal power requirements.

(i) “Generator” means the initial seller of electrical energy produced by a generating unit.

(j) “Independent System Operator” or “ISO” means the entity that is subject to the requirements of Section 345 et seq. of the Public Utilities Code.

(k) “Large hydroelectric” means the power source created when water flows from a higher elevation to a lower elevation and that is converted to electrical energy in one or more generators at a single facility, the sum capacity of which exceeds 30 megawatts.

(*l*) “Local publicly owned electric utility that does not utilize the Independent System Operator” means any of the following entities that owns generation facilities that are not individually metered by the ISO: (1) a municipality or municipal corporation operating as a public utility district furnishing electric services; (2) an irrigation district furnishing electric services; or (3) a joint powers authority that includes one or more of the entities identified in (1) or (2) and that owns generation or transmission facilities, or furnishes electric services over its own or its members' electric distribution system.

(m) "Net electricity generated" means electricity generated by any generating facility, less any generation used on-site, sold through an over-the-fence transaction, as defined in Section 218 of the Public Utilities Code, or sold or transferred to an affiliate as defined in subdivision (a) of Section 372 of the Public Utilities Code.

(n) “Out-of-State power” means power generated entirely outside the state which is sold for wholesale or retail purposes in California.

(o) "Pool" means an entity into which multiple generators deliver generating facility output and out of which multiple retail suppliers purchase generating facility output, such that buyer and seller may not have knowledge of each other's identities. The amount of electrical energy delivered into and purchased from the pool must be equal, and the amount of fuel type attribute delivered into the pool must be equal to or greater than the amount of fuel type attribute purchased from the pool.

(p) "Product-specific written promotional materials that are distributed to consumers" means any paper, electronic, or other media that contain words pertaining to a specific electric service product being advertised or offered and that are distributed to consumers or made available over the Internet. It does not include advertisements and notices in general circulation media.

(q) “Report electronically” means to provide files in either a database or spreadsheet format that can be read by the most recent version of either Microsoft™ Excel or Microsoft™ Access.

(r) "Retail supplier" or "retail provider" means an entity that offers an electric service product for sale to retail consumers in California.

(s) "Scheduling Coordinator" means any entity certified by the Independent System Operator for the purposes of undertaking the functions specified in Section 4.5.1 of the Independent System Operator Tariff. (Fifth Replacement FERC Electric Tariff, December 1, 2014)

(t) "Specific purchase" means a transaction in which generating facility output is traceable to specific generating facilities by any auditable contract trail or equivalent, such as a tradable commodity system, that provides commercial verification that the generating facility output claimed has been sold once and only once to retail consumers. Retail suppliers may rely on annual data to meet this requirement, rather than hour-by-hour matching of loads and resources. Specific purchases include electrical transactions from facilities owned or controlled by the retail supplier.

(u) "System Operator" has the same definition as balancing authority and includes the Independent System Operator as defined in subsection (j) of this section, and each local publicly owned electric utility that does not utilize the Independent System Operator, as defined in subsection (l) of this section.

(v) “Total California system electricity” means the sum of all in-state generation and net electricity imports by fuel type.

(w) “Unspecified sources of power” means electricity that is not traceable to specific generation sources by any auditable contract trail or equivalent, including a tradable commodity system, that provides commercial verification that the electricity source claimed has been sold once and only once.

Note: Authority cited: Section 25213, Public Resources Code; and Sections 398.3-398.5, Public Utilities Code. Reference: Sections 25216 and 25216.5, Public Resources Code; and Sections 398.1-398.5, Public Utilities Code.

§ 1392. Generation Disclosure.

(a) Method and Timing of Submissions

(1) All submissions to the balancing authority required by subdivision (a)(2) of this section must be provided to the balancing authority by the generator, either directly or through a Scheduling Coordinator.

(2) Each generator that provides meter data to a balancing authority, either directly or through a Scheduling Coordinator, shall report the information specified in subsection (b) of this section to the balancing authority within forty-five days of the end of each calendar quarter beginning with the quarter ending December 31, 1998.

(b) Content and Format of Submissions to the Balancing Authority

(1) General Information:

(A) Name and telephone number of person to contact about the submission;

(B) Generator name, address, and an identification number provided by the balancing authority, or in the event that the balancing authority does not provide an identification number to the generator, by the Energy Commission;

(C) For each generating facility that generates electrical energy consumed in California, the generating facility name, location, either by street address or by longitude and latitude, and an identification number provided by the U.S. Energy Information Agency, or, in the event that the U.S. Energy Information Agency does not provide an identification number to the generating facility, by the Energy Commission.

(2) Generation Information: Generators shall report electronically the electricity generated in kilowatt hours by hour by each generating facility, in each month of the preceding quarter.

(3) Fuel Information:

(A) For generating facilities using only one type of fuel, generators shall report electronically the type of fuel consumed in the preceding quarter.

(B) For generating facilities using more than one fuel type, generators shall report electronically the fuel consumed in each month of the preceding quarter as a percentage of the total fuel used for electricity generation.

(C) Fuel shall be reported in the following categories:

1. Eligible renewable, which shall be reported in the following subcategories:

a. Biomass and biowaste

b. Geothermal

c. Eligible hydroelectric

d. Solar

e. Wind

2. Coal

3. Natural gas

4. Large hydroelectric

5. Nuclear

6. Other

(c) Balancing Authority Responsibilities

(1) Subject to the limitations described in subsection (c)(2) of this section, all data provided to the balancing authority pursuant to subdivision (b) of this section will be reported electronically to the Energy Commission either by providing a computer disk containing the information, or by providing electronic access to the information. This access shall be provided to the Energy Commission within 60 days of the end of each calendar quarter.

(2) Limitations on Energy Commission Access:

(A) The balancing authority is not required to provide the Energy Commission with any information submitted under subdivision (b)(3) of this section that specifies the amount of fuel consumed at a generating facility.

(B) The balancing authority is not required to provide the Energy Commission with any information submitted under subdivision (b)(3) of this section for out-of-state power.

(d) The following requirements apply to generation and fuel information that is reported for any generation that is sold in an electric service product for which a claim of specific purchases is made.

(1) The generation and fuel information must be reported from individually metered generating facilities.

(2) If generation or fuel information for electrical energy that is sold in an electric service product for which a claim of specific purchases is made is not reported pursuant to subdivision (a) of this section, the generator shall report electronically the information specified in subdivision (d)(2)(A)-(C) of this section to the Energy Commission by March 1 of each year beginning in 1999 for each generating facility that generated such electrical energy in California. If the information is provided to the Energy Commission in another filing, the generator may submit a statement identifying the filing and section of the filing in which the information is contained in lieu of a separate filing pursuant to this subdivision.

(A) General Information:

1. Name and telephone number of person to contact about the submission;

2. Generator name, address, and an identification number provided by the -balancing authority, or in the event that the balancing authority does not provide an identification number to the generator, by the Energy Commission;

3. For each generating facility, the generating facility name, location, either by street address or by longitude and latitude, and an identification number provided by the U.S. Energy Information Agency, or, in the event that the U.S. Energy Information Agency does not provide an identification number to the generating facility, by the Energy Commission.

(B) Net electricity generated by the generating facility in kilowatt hours in the previous calendar year; and

(C) Type of fuel consumed by the generating facility as a percentage of electricity generation in the previous calendar year, using the categories specified in subdivision (b)(3)(C) of this section.

(3) When a retail supplier's claim of specific purchases mandates that a generator comply with the reporting requirements of subdivision (d)(2) of this section, the retail supplier shall inform the generator that he or she must comply with these reporting requirements.

Note: Authority cited: Section 25213, Public Resources Code; and Sections 398.3 and 398.5, Public Utilities Code. Reference: Sections 25216 and 25216.5, Public Resources Code; and Sections 398.3 and 398.5, Public Utilities Code.

§ 1393. Retail Disclosure to Consumers.

(a) For purposes of this section, the following definitions apply:

(1) "Annual disclosure" means the annual disclosure required under Public Utilities Code section 398.4(c).

(2) "Marketing disclosure" means the disclosure required under Public Utilities Code section 398.4(b).

(3) "Power content label" means the information disclosed to consumers pursuant to the format requirements of this section.

(4) "Eligible renewable" means eligible renewable as defined in section 1391 of this article.

(b) Pursuant to Section 398.4 of the Public Utilities Code, each retail supplier shall disclose to consumers the fuel mix of each electric service product that was sold during the previous calendar year, and separately disclose total California system electricity, using the schedule and format specified in this section.

(c) Each retail supplier shall disclose the information required in this section to consumers according to the following schedule:

(1) Marketing disclosures shall be provided in all product-specific written promotional materials that are distributed to consumers, as defined in subsection (p) of section 1391 of these regulations.

(2) Annual disclosures shall be provided by United States mail to customers of the electric service product and to the Energy Commission on or before the end of the first complete billing cycle for the third quarter of the year. Retail suppliers may provide annual disclosures to customers via electronic mail, provided that the customer has consented to receiving electronic mail notice in lieu of service by United States mail. Annual disclosures shall also be displayed on the website of the retail supplier.

(d) Each retail supplier shall disclose the following information in all power content labels about the fuel mix of the electric service product and of total California system electricity:

(1) Fuel mix information shall be provided using the following fuel type categories and in the following order, rounded to the nearest percent:

A. Eligible renewable

B. Coal

C. Large hydroelectric. For the purposes of this section, a pumped storage hydroelectric facility that consumes more electricity than it generates in a reporting year shall specify zero kilowatt hours of net electricity purchased.

D. Natural gas

E. Nuclear

F. Other

G. Unspecified sources of power

(2) The retail supplier shall include the following subcategories within the eligible renewable category:

A. Biomass and biowaste

B. Geothermal

C. Eligible hydroelectric

D. Solar

E. Wind

(3) The calculations identified in this section shall be based on net purchases of all specific purchases and unspecified sources of power acquired during the previous calendar year. Calculations shall be made using the information reported to the Energy Commission in the retail supplier's annual report as outlined in Section 1394 (a)(2)(A)(2).

(4) The fuel mix disclosed by retail suppliers that offer an electric service product to retail consumers in California and one or more other states shall reflect the entire portfolio of resources of that product.

(e) Each retail supplier shall provide disclosures for each electric service product offered using a power content label. The power content label shall use the following format:

(1) All information contained in the power content label shall appear in one place without other intervening material.

(2) Location of the power content label.

(A) If the retail supplier offers materials that consist of more than one page, the power content label or a note telling the customer where the power content label can be found, shall appear on the cover page or the first facing page. If a note is used to tell the customer where the power content label can be found, the note shall appear in a type size no smaller than 10 point.

(B) Notwithstanding the provisions of subdivision (e)(2)(A) of this section, if the promotional materials pertain to more than one electric service product and contain multiple pages, the power content label for each product may appear on the page discussing that electric service product.

(3) Each retail supplier shall use the power content label template provided by the Energy Commission on its website at http://www.energy.ca.gov/pcl/ to generate its power content label. The retail supplier shall input its fuel mix percentages in the fields in the column labeled "[year] Power Mix." The final column shall contain California total system power. At the bottom of the box containing the power content label, the following note shall appear: "For specific information about this electricity product, contact [Company Name] [Company Phone Number]. For general information about the Power Content Label, contact the California Energy Commission at 1-800-217-4925 or www.energy.ca.gov/pcl/", where "Company Name" is the name of the retail provider. The format of the power content label may not be altered by the retail supplier.

Note: Authority cited: Section 25213, Public Resources Code; and Section 398.4, Public Utilities Code. Reference: Sections 25216 and 25216.5, Public Resources Code; and Section 398.4, Public Utilities Code.

§ 1394. Annual Submission to the Energy Commission.

(a) Retail Supplier Report.

(1) On or before June 1 of each year, each retail supplier shall provide a filing to the Energy Commission, providing the information identified in subdivisions (a)(2)(A)-(D) below for each electric service product.

(A) Retail suppliers must provide this information on the Annual Report forms provided by the Energy Commission.

(B) The retail supplier must provide one paper copy, with an original signature, or an electronic copy of the original document containing the original signature.

(C) The report must include an attestation, signed by an authorized agent of the retail supplier under penalty of perjury, that the generating facility output claimed by the retail supplier as a specific purchase during the previous calendar year was sold once and only once to retail customers of that retail supplier, and that the information provided in the report is true and correct.

(D) All fuel type attribute information shall be provided using the fuel type categories identified in subdivisions (d)(1) and (2) of section 1393.

(E) Retail suppliers may provide the information specified in subdivisions (a)(2)(A)-(D) of this section by providing a reference to the date and title of a filing made to the Energy Commission containing the information specified in that subsection.

(2) Informational Requirements.

(A) Purchases

1. For each source of generating facility output from which a specific purchase, the retail supplier must include the following information: facility name or pool name, fuel type, state or province the facility is located in, facility or pool number (provided by the U.S. Energy Information Agency (EIA), WREGIS, or the Federal Energy Regulatory Commission (FERC)), gross kilowatt hours purchased, kilowatt hours resold or consumed on-site, and the resultant

calculation of net specific purchasesThis information shall be provided on the current version of Schedule 1 prepared by the Energy Commission.

2. All specific purchases and unspecified sources of power shall be reported on Schedule 1 as individual line items of gross kilowatt hours of purchased electricity and net kilowatt hours of purchased electricity, which shall be calculated by subtracting resold and consumed electricity. All reported purchases shall be denominated in thousands of kilowatt hours.

3. Retail suppliers who make specific purchases obtained from a pool must reference a filing made no later than June 1 of the current calendar year to the Energy Commission by the pool that includes the following information:

a. For each generator that provided generating facility output into the pool, the facility name, fuel type, state or province the facility is located in, facility number provided by, and total number of kilowatt hours provided into the pool. This information shall be provided on the current version of Schedule 3 prepared by the Energy Commission.

b. For each purchase of generating facility output from the pool, the amount of kilowatt hours purchased by each purchaser by fuel type. This information shall be provided on the current version of Schedule 4 prepared by the Energy Commission.

(B) Retail Sales: The retail supplier filing shall include each electric service product name, the kilowatt hours, in thousands, sold for each product from specific purchases by fuel type and unspecified sources of power, and total retail sales. This information shall be provided on the current version of Schedules 1 and 2 prepared by the Energy Commission.

(C) Comparison of Total Purchases and Sales: The retail supplier filing shall include total net specific purchases by resource type and total net purchases of unspecified sources of power, consistent with subdivision (a)(2)(A) above, minus total retail sales for all products, consistent with subdivision (a)(2)(B) above. This information shall be provided on the current version of Schedule 2 prepared by the Energy Commission.

(D) Power Content Label: The retail supplier shall provide to the Energy Commission a copy of each marketing and annual disclosure provided to customers pursuant to subdivisions 1393 (c)(1) and (2).

(b) Agreed-upon Procedures

(1) By October 1 of each year, all retail suppliers shall provide a report prepared by an auditor who has conducted the procedures identified in Appendix A of these regulations. The report shall contain a summary of the results of the procedures and a proof of service of the annual power content label to customers.

(2) A retail supplier that is a public agency providing electric services is not required to comply with the provisions of subdivision (b)(1) for one electric service product if the board of directors of the public agency approves at a public meeting the submission to the Energy Commission of an attestation of the veracity of the annual report. A report in accordance with subdivision (b)(1) shall be submitted for each additional electric service product it offers to its customers.

(c) The Energy Commission may on its own motion, or as a result of a request from a member of the public or other agency, investigate electricity transactions identified by a retail supplier to determine whether the transactions are traceable to specific generating facilities and whether they provide commercial verification that the electricity source claimed has been sold once and only once to retail consumers. In conducting its investigation, the Energy Commission may require the production of the service lists used to comply with the requirements of subdivision (b) of this section, as well as commercial documents, such as contracts, invoices, the verification procedures performed pursuant to subdivision (b) of this section, and attestations.

Note: Authority cited: Section 25213, Public Resources Code; and Section 398.5, Public Utilities Code. Reference: Sections 25216 and 25216.5, Public Resources Code; and Section 398.5, Public Utilities Code.

Appendix A:

Agreed-Upon Procedures

(a) This appendix describes the agreed-upon procedures that retail suppliers shall use to comply with the requirements of subdivision (b)(1) of Section 1394 of these regulations. These procedures shall be performed for each electric service product for which specific purchases were made during the previous calendar year, unless the exemption identified in subdivision (b)(2) of Section 1394 of these regulations is applicable. The procedures in subdivision (c)(1), and (c)(2) of this Appendix are applicable to all transactions relating to the fuel mix of the product, and the procedures in subdivision (c)(3) are applicable to the power content labels disclosing the fuel mix of the product. The procedures described in subdivision (c)(4) are also applicable to transactions in which the purchase of generating facility output is traced from a specific generating facility to a retail customer through a pool.

(b) The retail supplier must engage an independent accountant or certified internal auditor to perform the procedures identified in subdivision (c) below, in accordance with the American Institute of Certified Public Accountants (AICPA) Statements on Standards for Attestation Engagements, Section 600 or under Statements on Auditing Standards, Section 622. The accountant shall provide a report to the Energy Commission no later than October 1 of each year summarizing the results of the procedures.

(1) The accountant must be a Certified Public Accountant in good standing with the AICPA or a Certified Internal Auditor in good standing with the Institute of Certified Internal Auditors.

(2) The accountant or auditor may use sampling techniques following the guidance set forth in the AICPA AU Section 350, *Audit Sampling*, provided that the sample size is determined using a confidence level of 90 percent, a tolerable deviation of 10 percent, and an expected deviation rate of 3 percent, and the total population size is determined. The program participant will need to determine the population size (estimates are acceptable). The sample size shall be determined by using a statistical sampling program, and sample selection shall be made on a random basis using a random number generator. In any event, no more than 50 percent (50%) of the selected transactions may relate to any one month unless more than 50 percent (50%) of the population relates to the same month. All parameters and deviations used and the sample size must be described in the report. If the accountant chooses not to use sampling techniques, testing of 100 percent (100%) of the population must be performed.

(c) Agreed-Upon Procedures

(1) Purchases: The auditor shall review the information used to prepare Schedules 1 and 2 and perform the procedures identified below, noting any exceptions.

(A) The auditor shall agree the specific purchases and resales/self-consumption by facility or pool name, facility or pool number provided by EIA, WREGIS, or FERC, and kilowatt hours and fuel type from the information used to prepare Schedule 1 to Schedule 1. The auditor shall agree the purchases of unspecified sources of power and resales/self-consumption from the information used to prepare Schedule 1 to Schedule 1. The auditor shall also test the mathematical accuracy of Schedule 1.

(B) The auditor shall select a sample of purchases from the information used to prepare Schedule 1 using the sampling guidelines discussed in subdivision (b)(2) of this Appendix, and for each purchase in the sample perform the following procedures:

1. Agree the facility or pool name, facility or pool number provided by EIA, WREGIS, or FERC, kilowatt hours and the fuel type from the invoice to the information used to prepare Schedule 1.

2. For facilities owned by the retail supplier, agree the kilowatt hours with meter readings made by an independent third party, or confirm that the retail supplier has another internal auditing procedure that assures facility production agrees to production claims.

3. Agree the date of generation from the invoice to the reporting period of the information used to prepare Schedule 1.

(C) The auditor shall agree the net kilowatt hours purchased shown on Schedule 1 to net purchases shown on Schedule 2. Note as an exception if any explanation of the difference in net purchases and sales was improperly excluded.

(2) Sales: The auditor shall review the information used to prepare Schedules 1 and 2, and perform the procedures identified below, noting any exceptions.

(A) The auditor shall agree the total retail sales information used to prepare Schedule 1 to total retail sales shown on Schedule 1.

(B) The auditor shall agree the total retail sales shown on Schedule 1 to total retail sales shown on Schedule 2. The auditor shall also check the mathematical accuracy of Schedule 2.

(3) Labels

(A) The auditor shall obtain a copy of the annual power content label provided to customers for each product pursuant to subdivision (b) of Section 1393 of this chapter. The auditor shall calculate the fuel and technology mix of the total annual retail sales for the product using the information provided in Schedule 2~~A~~ and the equation found in subdivision (a)(2)(A)(2) of Section 1394 of this chapter. The auditor shall then compare these percentages to those identified for the actual power mix on the annual label. The auditor shall note any exceptions greater than 1%.

(4) Pools

(A) Purchases: The auditor shall obtain the information used to prepare Schedule 3 and perform the procedures identified below, noting any exceptions.

1. The auditor shall agree the purchases by facility name, facility number provided by EIA, WREGIS, or FERC, and kilowatt hours and fuel type from the information used to prepare Schedule 3 to Schedule 3. The auditor shall also test the mathematical accuracy of Schedule 3.

2. The auditor shall select a sample of purchases from the information used to prepare Schedule 3 using the sampling guidelines discussed in subdivision (b)(2) of this section, and for each purchase perform the following procedures:

a. Agree the facility name, facility number provided by EIA, WREGIS, or FERC, and kilowatt hours and fuel type from the invoice to the information used to prepare Schedule 3.

b. For facilities owned by the retail supplier, agree the kilowatt hours with meter readings made by an independent third party, or confirm that the retail supplier has another internal auditing procedure that assures facility production agrees to production claims.

c. Agree the date of generation from the invoice to the reporting period of the information used to prepare Schedule 3.

(B) Sales: The auditor shall obtain the information used to prepare Schedule 4, and perform the procedures identified below, noting any exceptions.

1. The auditor shall agree the sales by purchaser and by fuel type and kilowatt hours from the information used to prepare Schedule 4 to Schedule 4. The auditor shall also test the mathematical accuracy of Schedule 4.

2. The auditor shall select a sample of sales from the information used to prepare Schedule 4 using the sampling guidelines discussed in subdivision (b)(2) of this section, and for each sales compare kilowatt hours of fuel type to a copy of the billing statement and any other records.

Article 6. Qualified Departing Load CRS Exemptions

§ 1395. Scope.

The regulations in this Article implement the California Energy Commission (Commission) role in providing assessments and forecast of energy related matters within the state. The regulations set forth the mechanism and process for reporting of information by Departing Load customers requesting Cost Responsibility Surcharge (CRS) exemptions. The regulations set forth the mechanism and process for the Commission to assess and track eligibility of Departing Load customers for CRS Exemptions. The information obtained under these regulations will be incorporated into the Integrated Energy Policy Report (IEPR) in order to assess and forecast the impacts of CRS and CRS exemptions on the deployment of distributed generation.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 25216, 25216.5, 25301 and 25320, Public Resources Code.

§ 1395.1. Rules of Construction and Definitions.

The rules of construction and definitions in Section 1302 of Article 1 of this Chapter, and the definitions set forth in this Section, apply to this Article.

(a) "Backup Generation" means electricity generated by a Customer on a temporary basis in order to replace the generation lost from that Customer's normal supply source, usually the Electric Utility where the customer resides.

(b) "Best Available Control Technology" or "BACT" means the maximum degree of emissions reduction achievable after taking into account energy, economic, and environmental impacts, as set forth in Health and Safety Code Section 40405. The local air district where the generation is located usually makes the BACT determination.

(c) "Bonds" means the California Department of Water Resources (CDWR) Power Supply Revenue Bonds, Series 2002A-2002E, issued by the State of California on October 23, 2002, and November 7, 2002. The Bonds were issued for the purpose of repaying the State's General Fund for procuring electricity on behalf of Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas and Electric Company from January 17, 2001 to December 31, 2002.

(d) "CARB" means the California Air Resources Board.

(e) "CPUC" means the California Public Utilities Commission.

(f) "Cogeneration" means the sequential use of energy for the production of electrical and useful thermal energy, as set forth in Public Utilities Code section 218.5.

(g) "Cost Responsibility Surcharge" or "CRS" means energy cost obligations consistent with CPUC Decision 03-04-030 and subsequent CPUC decisions. CRS-related costs are recoverable from eligible customers on a cents-per-kilowatt-hour basis and include the following components:

(1) Costs associated with Southern California Edison Company's Historical Procurement Charge;

(2) Costs associated with repayment of bonds for the procurement of power by the CDWR for purchases made between January 17, 2001 and December 31, 2002;

(3) Costs associated with the power contracts entered into by the CDWR on behalf of Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas and Electric Company for procurement beginning January 1, 2003; and

(4) Cost associated with the Tail Competition Transition Charge, as defined in Public Utilities Code section 367(a).

(h) "CRS Exemption" means the avoidance of the payment of one or more of the CRS components, as defined in subsection (g) of this section, if a customer is eligible.

(i) "CRS Exemption Queue" or "Queue" means the list of CRS Exemption requests either placed or pending placement in order of receipt, for approval of a CRS Exemption within the appropriate Megawatt Cap.

(j) "Commission" means the California Energy Resources Conservation and Development Commission.

(k) "Customer" means an electric utility customer that has any portion of load qualifying as Departing Load, and is seeking a CRS Exemption or placement in the Queue to receive a future CRS Exemption.

(*l*) "Customer Generation" means any type of generation that (1) is dedicated wholly or in part to serve a specific customer's load; and (2) relies on non-utility or dedicated utility distribution wires rather than the utility grid, to serve the customer, the customer's affiliates and/or tenant's, and not more than two other persons or corporations. Those two persons or corporations must be located on site or adjacent to the real property on which the generator is located.

(m) "Departing Load" means those portions of the utility customer's electric load for which the customer: discontinues or reduces its purchase of bundled or direct access service from the utility; purchases or consumes electricity supplied and delivered by Customer Generation to replace the utility or direct access (DA) purchases; and remains physically located at the same location or elsewhere within the utility's service territory as of April 3, 2003. Reduction in load qualifies as Departing Load only to the extent that such load is subsequently served with electricity from a source other than a utility. This definition of departing load does not include the following:

(1) Changes in usage occurring in the normal course of business resulting from changes in business cycles, termination of operations, departure from the utility service territory, weather, reduced production, modifications to production equipment or operations, changes in production or manufacturing processes, fuel switching, enhancement or increased efficiency of equipment or performance of existing Customer Generation equipment, replacement of existing Customer Generation equipment with new power generation equipment of similar size, installation of demand-side management equipment or facilities, energy conservation efforts, or other similar factors.

(2) New customer load or incremental load of an existing customer where the load is being met through a direct transaction with Customer Generation and the transaction does not otherwise require the use of transmission or distribution facilities owned by the utility.

(3) Load temporarily taking service from a Back-up Generation unit during emergency conditions called by the utility, the California Independent System Operator, or any successor system operator.

(4) Municipally-owned utilities or irrigation districts.

(5) Changes in the distribution of load among accounts at a customer site with multiple accounts, load resulting from the reconfiguration of distribution on the customer side of the site, provided that the customer changes do not result in a discontinuance or reduction of service from the Electric Utility at that location.

(6) Load that physically disconnects from the grid. This definition is intended to be consistent with CPUC utility tariffs and related subsequent CPUC decisions.

(n) "Departing Load CRS Information Form" or "Form" means the document containing pertinent information from the Customer necessary for the Commission to determine whether or not a Customer is eligible for a CRS Exemption.

(o) "Development Plan" or "Plan" means a detailed schedule for anticipated construction and interconnection activities. The Plan shall include a list of all permits and

approvals that the Customer will need to obtain before interconnection will occur, and the anticipated time it will take for the Customer to obtain each of the permits and approvals.

(p) "Electric Utility" means an investor owned utility. In this case, Electric Utility refers to Pacific Gas and Electric Company, Southern California Edison Company, or San Diego Gas and Electric Company, depending on the service territory where the Customer Generation is located.

(q) "IEPR" means the Commission's Integrated Energy Policy Report.

(r) "Full CRS Exemption" means that a Customer is exempt from paying surcharges associated with the CRS defined in subsection (g) of this section.

(s) "Megawatt Cap" means the total amount of Departing Load, expressed in megawatts, eligible for a CRS Exemption, consistent with the Cap levels determined by the CPUC.

(t) "Net Energy Metering" shall have the same definition as set forth in Public Utilities Code section 2827(b)(3).

(u) "Partial CRS Exemption" means that a Customer is exempt from paying certain components of the CRS as defined in subsection (g) of this section, but do not qualify for a Full CRS Exemption. The extent that a Customer may be eligible for an exemption is based on the criteria set forth in Section 1395.3(d) of this Article.

(v) "Ultra Clean and Low-Emissions Distributed Generation" shall have the same definition as set forth in Public Utilities Code Section 353.2.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 25216, 25216.5, 25301 and 25320, Public Resources Code.

§ 1395.2. Departing Load CRS Information Form or Form.

(a)(1) The Commission shall prepare, and make available to Customers, in conjunction with each Electric Utility a Departing Load CRS Information Form (Form). The Form shall provide information necessary to assess eligibility for a CRS exemption.

(2) The Form shall include, but not be limited to, the following information:

(A) Customer name;

(B) Contact information, such as phone number and email address;

(C) Address (including street number, street name, city, and zip code);

(D) Capacity of Customer Generation unit;

(E) Estimated annual Departing Load

(F) Type of technology;

(G) Anticipated interconnection date; and

(H) Proposed Project Development Plan and any anticipated activities that may delay the project beyond 12 months from submission of the Customer's application.

(b) Each Electric Utility may develop forms that substantially meet the criteria set forth in section (a)(2) of this section, and make such forms available to customers within its service territory for purposes of providing the information necessary to include a Customer in the CRS Exemption Queue. The Commission shall approve any Electric Utility forms and modifications to such forms at least 30 days prior to any formal use of the forms by the Electric Utility.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 25216, 25216.5, 25301 and 25320, Public Resources Code.

§ 1395.3. Process for Assessing Eligibility for CRS Exemptions, and Reporting Requirements.

(a) The Customer shall submit a Form to the Electric Utility and the Commission.

(b) The Electric Utility shall:

(1) Conduct an initial review and determine whether the Form is complete.

(A) If the Form is incomplete, the Electric Utility shall notify the Customer within 10 calendar days after receipt of the Form that additional information is needed to process the request for a CRS Exemption. The notification shall indicate which portion(s) of the Form require supplemental information.

(B) If the Form is complete, then the Electric Utility shall within 10 calendar days after receipt of the Form:

1. Provisionally categorize each project;

2. Identify the conditions that must be met to receive final project categorization; and

3. Transmit the completed Form with provisional project categorization to the Commission, with a copy to the Customer serving as official notification.

(2) Automatically grant Full CRS Exemptions, if the Customer is:

(A) Eligible for participation in the CPUC's Self Generation Incentive Program up to 1 megawatt;

(B) Eligible for participation in the Commission's Renewable Energy Program up to 1 megawatt; or

(C) A Net Energy Metering Customer.

(3) Send the Commission and the Customer confirmation in writing of the Full CRS Exemption granted within 10 calendar days from issuance of the automatic exemption. The Commission shall incorporate the CRS Exemption into the queuing process for purposes of tracking the appropriate megawatt cap.

(c) Upon receipt of a completed Form with provisional project categorization from the Electric Utility, the Commission shall:

(1) Review the completed Form and assess whether the Customer is eligible for a CRS Exemption and if there is space available under the appropriate Megawatt Cap.

(2) Make the initial assessment of eligibility based on the information provided. This initial assessment shall be designated to the appropriate Commission Committee assigned to matters concerning distributed generation or departing load.

(3) Not include in the Queue any CRS Exemption request that is considered Backup Generation or diesel-fired Customer Generation, as these forms of generation do not qualify for a CRS Exemption.

(4) Not include in the queue a CRS Exemption request if the Customer does not meet the criteria outlined in section (d) of this section. If the Commission does not include a CRS Exemption request in the Queue it shall provide written notification to the Customer and the Electric Utility within 10 calendar days of rejecting the request.

(5) Place all qualifying Customers within the Queue. Customers that qualify for an exemption are those placed in the Queue within the appropriate Megawatt Cap as determined by the CPUC.

(d) The Commission shall place all Customers in the Queue based on technology categorization, and date of Form submittal. The Commission shall assess whether a Partial CRS Exemption for each Customer submitting a Form should be in included in the Queue based on either the nameplate rating or estimated annual Departing Load. The amount of Departing Load and categorization will be utilized in maintaining an accurate account of available Megawatts in the Queue. The categorization of technology type is as follows:

(1) Ultra Clean and Low-Emissions Distributed Generation Over One Megawatt.

(2) Other Customer Generation not qualifying under (d)(1) of this section, subject to meeting air district BACT standards and the following megawatt caps:

(A) 600 megawatts by the end of 2004, of which 10 megawatts are reserved for University of California or the California State University System;

(B) 500 additional megawatts by July of 2008, of which 80 megawatts are reserved for University of California or the California State University System; and

(C) 400 additional megawatts thereafter, of which 75 megawatts are reserved for University of California or the California State University.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 25216, 25216.5, 25301 and 25320, Public Resources Code.

§ 1395.4. CRS Exemption Queue and Procedures for Updating the Queue.

(a) A CRS Exemption Queue (Queue) shall be established by the Commission and be based on a first-come, first-served basis, utilizing the criteria outlined in Section 1395.3 and the information provided in the Form. Forms shall be date-stamped upon receipt by the Commission.

(b) The Commission shall maintain the Queue in electronic format with aggregated totals posted on the Commission website. The Commission website will list general information about each request including the size of the exemption, technology type and general location. The identification and specific location of a Customer applying for a CRS Exemption shall be deemed confidential.

(c) The Commission shall track all Forms and assess Customer eligibility for a CRS Exemption. Once eligibility is established, the Commission shall place the Customer request in the CRS Exemption Queue, subject to the applicable Megawatt Cap.

(1) If the Customer request falls within the Megawatt Cap:

(A) The Commission will notify the Electric Utility and the Customer within 10 calendar days of placing the Customer in the Queue.

(B) The Commission will notify the Customer of rank within the Queue and whether the Customer will receive a Partial CRS Exemption.

(C) The Customer will have 12 months from the date of placement in the Queue to interconnect with the grid. If the Customer does not believe it will be able to connect within the 12-month timeframe, then it must submit a Development Plan (Plan) to the Commission in order to demonstrate that the Customer is actively progressing in the permitting and/or construction of the project. The Commission may request additional information after the initial 12-month period to ensure continuing active progress by the Customer in conformance with the Development Plan.

(2) If the Customer request does not fall within the Megawatt Cap, the Commission will:

(A) Notify the Electric Utility and Customer that the request does not fall within the Megawatt Cap; and

(B) Place the Customer request in the Queue ranked in order of receipt.

(d) The Commission will update the Queue weekly in order to ensure timely and efficient Customer access to CRS Exemption information. In doing so the Commission shall:

(1) Remove CRS Exemption requests if a Customer does not commence operation within 12 months from the date a CRS Exemption request is placed in the Queue, if the Customer does not demonstrate sufficient compliance with a Plan submitted to the Commission at the time the exemption is listed in the Queue, or if the Customer otherwise ceases to meet the requirements for a CRS Exemption.

(2) Incorporate any changes to the Megawatt Cap as deemed appropriate.

(e) The Electric Utility shall notify the Commission when an eligible Customer commences operation of its generating facilities.

(f) The Commission shall develop a monitoring process in order to ensure that information provided in the Queue will help accurately assess the amount and type of Customer Generation being deployed in the Electric Utility service territories. The Commission will develop monitoring procedures to ensure Customer Generation continues to meet the requirements for exemption once listed in the Queue, and to ensure that the utilities are complying with provisions of these regulations in a timely manner.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 25216, 25216.5, 25301 and 25320, Public Resources Code.

§ 1395.5. Extension Requests, Other Substantive Changes, and Requests to Evaluate Additional Information.

(a) Substantive changes require prior notice to the appropriate Commission Committee and will be considered if requested in writing. Each request must describe the need for the change or extension of time, and must document the following:

(1) Circumstances beyond the control of the Customer that prevent the system from commencing operation as described in the Form.

(2) The Customer had no knowledge or reason to know that the commencement of operation would not occur until after the requested date stated in the Form.

(3) There are no other known obstacles in the way of completing the project within the requested extension period.

(b) Any request for extension of time must be based on good cause and demonstrate circumstances beyond the control of the Customer, unless the Customer provided a Plan to the Commission at the time the Departing Load was listed in the Queue.

(c) Customers that disagree with the Commission's assessment of categorization may request a re-evaluation of the information provided in the Form, or submit additional information to supplement or clarify information provided in the Form for purposes of requesting a re-categorization of the Customer's placement in the Queue.

(d) Any request for extension of time or re-evaluation of categorization must be filed at least 30 days prior to the expiration of the Customer's place in the Queue, or 30 days from notification of the Customer's categorization within the Queue.

(e) The Commission shall notify the Customer of its final assessment in writing within 30 days from the receipt of the request for an extension of time or re-categorization. The Customer will not be removed from the Queue until a final assessment by the Commission has been made pursuant to this section.

Note: Authority cited: Sections 25213 and 25128(e), Public Resources Code. Reference: Sections 25216, 25216.5, 25301 and 25320, Public Resources Code.

§ 1395.6. Incorporation of Information and Impacts of CRS and CRS Exemptions into IEPR.

(a) The Commission shall utilize information received by Customers, the Electric Utilities, and the Queue to assess impacts of CRS on deployment of Customer Generation, grid reliability, air quality, and the environment.

(b) The assessments and forecasts made pursuant to subsection (a) of this section shall be incorporated into the Commission's IEPR along with any recommendations as to the benefits or detriments of CRS and CRS Exemptions to statewide energy resource planning, including progress or implementation of the Distributed Generation Strategic Plan adopted by the Commission in June 2002.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 25216, 25216.5, 25301 and 25320, Public Resources Code.

Chapter 4. Energy Conservation

Article 1. Energy Building Regulations

§ 1404. Exceptional Designs.

See Section 1409 for approval of calculation methods and Alternative Component Packages.

Note: Authority cited: Sections 25402 and 25402.1, Public Resources Code. Reference: Sections 25402 and 25402.1, Public Resources Code.

§ 1409. Calculation Methods and Alternative Component Packages.

Note: See Section 1404 for approval of exceptional designs.

Note: Authority cited: Section 25402.1, Public Resources Code. Reference: Section 25402.1, Public Resources Code.

§ 1410. Procedures for Consideration of Applications Under Sections 1404, 1406, 1408, and 1409.

Note: Authority cited: Section 25402.1, Public Resources Code. Reference: Section 25402.1, Public Resources Code.

Article 2. Nonresidential Building Standards

§ 1451. Energy Insulation Standards for Nonresidential Buildings.

Note: Authority cited: Sections 25213, 25218(e), Public Resources Code. Reference: Section 25402(a), Public Resources Code; Sections 19878-19878.8, Health and Safety Code.

Article 3. Standards For Insulating Material

§ 1551. Application and Scope.

The provisions of this article shall apply only to urea formaldehyde foam (field applied) and the insulation levels required when insulation is installed in existing buildings.

Note: Authority cited: Sections 25910, 25911, Public Resources Code. Reference: Sections 25910, 25911, Public Resources Code.

§ 1552. Definitions.

For purposes of this article, the following definitions shall apply:

(a) "ANSI" means the American National Standards Institute.

(b) "ASTM" means the American Society for Testing and Materials.

(c) "Insulating material" or "insulation" means any material listed in Section 1551(b) of this article and placed within or contiguous to a wall, ceiling, roof, or floor of a room or building, or contiguous to the surface of any appliance or its intake or outtake mechanism, for the purpose of reducing heat transfer or reducing adverse temperature fluctuations of the building room or appliance.

(d) "Manufacturer" means any person who either:

(1) produces insulating material in the final composition either for use in the form sold or to be further dimensionally modified; or

(2) in the case of polyurethane, polyisocyanurate and urea formaldehyde foam formed at the installation site, produces the primary components of the material.

"Manufacturer" shall not include any building contractor or any other person whose sole activity is to install insulation at the installation site.

(e) "Urea formaldehyde foam" means a cellular plastic insulation material generated in a continuous stream by mixing the components which are a urea formaldehyde resin, air and a foaming agent.

Note: Authority cited: Sections 25910, 25911, Public Resources Code. Reference: Sections 25910, 25911, Public Resources Code.

§ 1553. Urea Formaldehyde Foam Field Applied.

(a) Limitation on Sale. Urea formaldehyde foam is unsafe for use as insulation. Sale within the State of California of urea formaldehyde foam insulation is prohibited.

(b) Exemption. Notwithstanding any other provision of this article, a manufacturer of the primary components of urea formaldehyde foam insulation may apply for certification as provided in Section 1555 of this article. Such certification statement shall indicate compliance with the following standards:

(1) Composition. The material shall consist of cellular plastic generated in a continuous stream by mixing the components which are a urea formaldehyde resin, air, and a foaming agent. The material shall be suitable for filling closed cavities through small holes and suitable also for filling open cavities by trowelling during foaming prior to enclosure.

(2) Thermal Performance. The effective thermal performance, incorporating a derating value, shall be determined according to the method described in 42 Fed. Reg. pages 55143-55148.

(3) Resistance to Combustion. Surface burning characteristics shall be determined according to the ANSI/ASTM E84-79, and shall not exceed the following values:

Flame spread.....25

Smoke developed..... 450

Test specimens shall be aged for 45 days at 70° + 5° and 35 to 40 percent relative humidity before testing.

(4) Free Formaldehyde Content of Dry Foam. The free formaldehyde content of the dry foam shall be less than 0.01 percent formaldehyde by weight when tested as specified in paragraph (f)(8), published in 45 Fed. Reg. page 63801, except that the specimens to be tested shall also be aged for 56 days at 24 + 5°C (75 + 10°F) and 50 + 10 percent relative humidity in an uncovered beaker.

(5) Corrosiveness. The material shall be tested and meet the criteria for corrosiveness as specified in 45 Fed. Reg. pages 63786-63810.

(6) Density. The material shall be tested and meet the criteria for density as specified in 45 Fed. Reg. pages 63786-63810.

(7) Shrinkage. The material shall be tested and meet the criteria for shrinkage as specified in 45 Fed. Reg. pages 63786-63810, except that the material shall not shrink more than 2.0 percent in any direction.

(8) Volume Resistivity. The material shall be tested and meet the criteria for volume resistivity as specified in 45 Fed. Reg. 63786-63810.

(9) Identification. Resin and foaming agent containers shall be marked with conditions of proper storage and the derated R-value and shrinkage of the prepared foam as certified by the manufacturer.

(10) Safety Information. Installers of urea formaldehyde foam insulation shall present the following safety notice to the purchasers of the foam prior to the signing of the contract for installation. The notice shall be printed in a minimum of 8-point type size. One copy of the notice signed by the purchaser shall be immediately given to the purchaser, one copy shall be retained

by the installer, and one copy shall be mailed by the installer to the Executive Director of the Energy Commission within 48 hours after installation of the insulation is completed.

Manufacturers shall make all sales of urea foam insulation components expressly subject to the application restrictions listed in the notice described in the following figure ("Urea Formaldehyde Foam Insulation Safety Notice”).

UREA FORMALDEHYE FORM INSULATION SAFETY NOTICE

The Federal Panel on Formaldehyde has concluded that formaldehyde should be presumed to pose a carcinogenic (cancer) risk for humans. Formaldehyde gas may also cause eye, nose, and throat irritation, coughing, shortness of breath, skin irritation, nausea, headaches, and dizziness. People with respiratory problems or allergies may suffer more serious reactions, especially people allergic to formaldehyde. Women who are pregnant or planning to become pregnant should not be exposed to this product.

The symptoms may appear immediately, or not until months after installation.

This product may release formaldehyde gas into your home or building over a long period of time. In some instances the formaldehyde gas cannot be controlled by ventilation or other means. Application of this product is restricted to exterior sidewalls in both residential and commercial/industrial buildings. A four mil thickness plastic polyethylene vapor barrier, or equivalent plastic sheeting vapor barrier, shall be installed between the urea formaldehyde foam insulation and the interior space of the home or building in all applications.

If you have health concerns, call your doctor. Also, call the installer or manufacturer of the material.

(PLEASE PRINT OR WRITE LEGIBLY)

PURCHASER NAME OR NAMES _____

PURCHASER ADDRESS _____ CITY _____ ZIP _____

PURCHASERS PHONE NUMBER Home ( ) _____ Work ( ) _____

LOCATION OF INSTALLATION IF DIFFERENT FROM ABOVE

LOCATION ADDRESS _____ CITY _____ZIP _____

The Purchaser acknowledges he or she has read and understands this notice.

Signed X _____ Date _____

Signed X _____ Date _____

THE FOLLOWING INFORMATION IS TO BE COMPLETED BY THE INSTALLING CONTRACTOR

CONTRACTOR'S NAME _____

CONTRACTOR'S ADDRESS _____ CITY _____ ZIP _____

CONTRACTOR'S STATE LICENSE NUMBER _____

NAME OF MANUFACTURER _____

MANUFACTURER'S ADDRESS _____ CITY _____ ZIP _____

MANUFACTURER'S PHONE NUMBER ( ) _____

TEMPERATURE OF OUTSIDE AIR AT START OF INSTALLATION_____°F

	BATCH NUMBER	EXPIRATION DATE	TEMPERATURE (START OF INSTALLATION)
RESIN	_____	_____	_____°F
FOAMING AGENT	_____	_____	_____°F

STEPS THE INSTALLING CONTRACTOR MUST FOLLOW

1. The installing contractor is responsible for mailing this completed notice to the following address within 48 hours after completion of installation.

Mail one copy to:

EXECUTIVE DIRECTOR, MS #39
CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814

2. Give one copy to the Purchaser.
3. The installing contractor shall keep one copy of this completed notice for a period of not less than three years.

(c) Severability of Provisions. If any provision of Section 1553(a) or 1553(b), or the application thereof to any person or circumstances, is held invalid, the remaining provisions, or the application of such provisions to other persons or circumstances, shall not be affected thereby.

Note: Authority cited: Section 25911, Public Resources Code. Reference: Section 25911, Public Resources Code.

§ 1564. Insulating Existing Buildings.

(a) On or after March 25, 1982, if insulating material is installed in an existing building, in any of the applications specified in California Administrative Code, Title 24, Section 2-5305, the installing contractor shall certify that the amount of insulation installed meets or exceeds the requirements of Section 2-5305 for that application. Such certification shall be made on completion of the installation by posting in a conspicuous location a certificate signed under penalty of perjury. The certificate shall state the manufacturer's name and material identification, the thermal resistance (R-value) of the newly installed insulation, the estimated R-value of the original insulation, the total R-value, and (in application of loose fill insulation) the minimum contractor installed weight per square foot. This installed weight per square foot shall conform with the manufacturer's installed design density per square foot at the manufacturer's labeled R-value.

(b) Water Heater Insulation Kits. No water heater insulation kit shall be sold, on or after March 25, 1982, unless it has a thermal resistance of at least R-6 and is so identified.

Each water heater insulation kit sold shall include instructions which are equivalent to the Department of Energy standard practice for the installation of insulation on gas-fired, oil-fired, and electric resistance water heaters, 44 Fed. Reg. pages 64703-64705.

Note: Authority cited: Section 25910, Public Resources Code. Reference: Section 25910, Public Resources Code.

Article 4. Appliance Efficiency Regulations

§ 1601. Scope.

This Article applies to the following types of new appliances, if they are sold or offered for sale in California, except those sold wholesale in California for final retail sale outside the state and those designed and sold exclusively for use in recreational vehicles, or other mobile equipment. Unless otherwise specified, each provision applies only to units manufactured on or after the effective date of the provision.

NOTE: For the applicability of these regulations to appliances installed in new building construction, see sections 110.0 and 110.1 of part 6 of Title 24 of the California Code of Regulations.

(a) Refrigerators, refrigerator-freezers, freezers, and miscellaneous refrigeration that can be operated by alternating current electricity, including but not limited to refrigerated bottled or canned beverage vending machines, automatic commercial ice makers, refrigerators with or

without doors, freezers with or without doors, walk-in coolers, walk-in freezers, and water dispensers, but excluding the following types:

(1) consumer products with total refrigerated volume exceeding 39 ft^3;

(2) blast chillers; and

(3) automatic commercial ice makers with a harvest rate less than 50 lbs./24 hours and automatic commercial ice makers with a harvest rate greater than 4000 lbs./24 hours.

(b) Room air conditioners, room air-conditioning heat pumps, packaged terminal air conditioners, and packaged terminal heat pumps.

(c) Central air conditioners, which are electrically-powered unitary air conditioners and electrically-powered unitary heat pumps, except those designed to operate without a fan; and gas-fired air conditioners and gas-fired heat pumps, air filters for residential buildings for use in forced-air heating or forced-air cooling equipment, and heat pump water-heating packages.

(d) Portable air conditioners, evaporative coolers, residential furnace fans, ceiling fans, ceiling fan light kits, whole house fans, residential exhaust fans, and dehumidifiers.

(e) Vented gas space heaters and vented oil space heaters, vented and unvented infrared gas space heaters, electric residential boilers, and gas-fired combination space-heating and water-heating appliances.

NOTE: See Health and Safety Code section 19881 for restrictions on the sale of unvented gas space heaters and unvented oil space heaters.

(f) Water heaters, including but not limited to hot water supply boilers.

(g) Pool heaters, residential pool pump and motor combinations, replacement residential pool pump motors, portable electric spas, and pumps.

(h) Plumbing fittings, which are showerheads, lavatory faucets, kitchen faucets that are consumer products, metering faucets, kitchen replacement aerators, lavatory replacement aerators, wash fountains, tub spout diverters, public lavatory faucets, and commercial pre-rinse spray valves.

(i) Plumbing fixtures, which are water closets and urinals.

(j) Fluorescent lamp ballasts and deep-dimming fluorescent lamp ballasts that are designed to:

(1) operate at nominal input voltages of 120 or 277 volts,

(2) operate with an input current frequency of 60 Hertz, and

(3) be used with T5, T8, or T12 lamps; and mercury vapor lamp ballasts.

(k) Lamps, which are federally-regulated general service fluorescent lamps, federally regulated incandescent reflector lamps, general service incandescent lamps, general service

lamps, state-regulated light-emitting diode (LED) lamps, state-regulated small-diameter directional lamps, and includes GU24 base lamps.

(l) Emergency lighting, which is illuminated exit signs, and self-contained lighting controls.

(m) Traffic signal modules.

(n) Luminaires, which are torchieres, metal halide luminaires, portable luminaires, under-cabinet luminaires, and includes luminaires with GU24 socket and base configurations and GU24 adaptors.

(o) Dishwashers that are federally regulated consumer products.

(p) Clothes washers that are federally regulated consumer products; and commercial clothes washers.

(q) Clothes dryers that are federally regulated consumer products.

(r) Cooking products that are federally regulated consumer products; and food service equipment.

(s) Electric motors and compressors, which are:

(1) electric motors, excluding definite purpose motors, special purpose motors, and motors exempted by the U.S. Department of Energy under 42 U.S.C. section 6313(b); or

(2) compressors, which are federally regulated commercial and industrial air compressors.

(t) Distribution transformers which are low voltage dry-type distribution transformers, liquid-immersed distribution transformers, and medium voltage dry-type distribution transformers.

(u) External power supplies, which are single voltage external AC to DC and AC to AC power supplies included with other retail products, and single voltage external AC to DC or AC to AC power supplies sold separately excluding external power supplies that are classified as devices for human use under the Federal Food, Drug, and Cosmetic Act and require U.S. Food and Drug Administration listing and approval as a medical device.

(v) Computers, computer monitors, televisions, signage displays, and consumer audio and video equipment, which are compact audio products, digital versatile disc players, and digital versatile disc recorders.

(w) Battery charger systems, except those:

(1) used to charge a motor vehicle that is powered by an electric motor drawing current from rechargeable storage batteries, fuel cells, or other portable sources of electrical current, and which may include a nonelectrical source of power designed to charge batteries and components thereof. This exception does not apply to forklifts and autoettes, electric personal assistive mobility devices, golf carts, or low speed vehicles, as those vehicles are defined in Division 1 of the California Vehicle Code;

(2) that are classified as Class II or Class III devices for human use under the Federal Food, Drug, and Cosmetic Act and require U.S. Food and Drug Administration listing and approval as a medical device;

(3) used to charge a battery or batteries in an illuminated exit sign, as defined in section 1602(l) of this Article;

(4) with input that is three phase of line-to-line 300 volts root mean square or more and is designed for a stationary power application;

(5) that are battery analyzers;

(6) that are voltage independent or voltage and frequency independent uninterruptible power supplies as defined by the International Electrotechnical Commission (IEC) 62040-3 ed.2.0 (March 2011), or

(7) that are contained completely within a larger product and that:

(A) provide power for data storage or for continuity within volatile cache or memory systems;

(B) maintain information for system use; and

(C) the battery is not capable of powering full operation of the product when AC mains power is removed.

The following document is incorporated by reference in section 1601.

Number	*Title*
INTERNATIONAL ELECTROTECHNICAL COMMISSION (IEC)	
IEC 62040-3 ed.2.0 (March 2011)	Uninterruptible Power Systems

Copies available from: International Electrotechnical Commission
3, rue de Varembé
P.O. Box 131
CH – 1211 Geneva 20
Switzerland
http://www.iec.ch
Phone: +41 22 919 02 11
FAX: +41 22 919 03 00

Note: Authority cited: Sections 25213, 25218(e), 25402(a)-25402(c) and 25960, Public Resources Code; and sections 16, 26 and 30, Governor's Exec. Order No. B-29-15 (April 1, 2015). Reference: Sections 25216.5(d), 25402(a)-25402(c), 25402.5.4 and 25960, Public Resources Code; and section 16, Governor's Exec. Order No. B-29-15 (April 1, 2015).

§ 1602. Definitions.

(a) General.

In this Article the following definitions apply. If a term is not defined here, the applicable definition in NAECA, EPAct, the EPAct 2005, EISA, or the test methods listed in section 1604 of this Article shall apply where it is reasonable to do so.

"AC" means alternating current.

"Accessible place" means a place on an appliance that can be easily seen without the need for tools to remove any covering.

"Active mode" means a condition in which an energy-using product:

(1) is connected to a main power source;

(2) has been activated; and

(3) provides one or more main functions.

"AHAM" means the Association of Home Appliance Manufacturers.

"AHRI" means the Air-Conditioning, Heating, and Refrigeration Institute.

"ANSI" means the American National Standards Institute.

"Approved industry certification program" means an appliance certification program that meets all the criteria shown in section 1603(b)(1) of this Article.

"ASHRAE" means the American Society of Heating, Refrigerating and Air-Conditioning Engineers.

"ASME" means the American Society of Mechanical Engineers, International.

"Ballast" means a device used with an electric discharge lamp to obtain necessary circuit conditions (voltage, current, and waveform) for starting and operating.

"Ballast efficacy factor" means the relative light output divided by the power input of a fluorescent lamp ballast, as determined using the applicable test method in section 1604(j) of this Article.

"Basic model" of a computer means a group of computer models that are made by a single manufacturer and that have the same chassis, power supply, motherboard, and expandability score. The chassis shall be considered the same if the energy use characteristics are not modified by variations in the chassis, such as a change in color.

"Basic model" of a federally regulated consumer product means "basic model" as defined in 10 C.F.R. section 430.2.

"Basic model" of any other appliance means all units of a given type of appliance (or class thereof) that are manufactured by one manufacturer, that have the same primary energy source,

and that do not have any differing electrical, hydraulic, physical, or functional characteristics that affect energy consumption, energy efficiency, water consumption, or water efficiency.

"Btu" means British thermal unit, which is the quantity of heat required to raise the temperature of one pound of water one degree Fahrenheit (1°F).

"°C" means degrees Celsius.

"Candelabra base incandescent lamp" means a lamp that uses candelabra screw base as described in ANSI C81.61-2006, Specifications for Electric Bases, common designations E11 and E12.

"cfm" means cubic feet per minute.

"C.F.R." means Code of Federal Regulations.

"CIE" means the International Commission on Illumination.

"Color rendering index (CRI)" means the measured degree of color shift objects undergo when illuminated by a light source as compared with the color of those same objects when illuminated by a reference source of comparable color temperature, as determined using the applicable test method in section 1604(k) of this Article.

"Compact fluorescent lamp (CFL)" means an integrated or non-integrated single-base, low-pressure mercury, electric-discharge source in which a fluorescing coating transforms some of the ultraviolet energy generated by the mercury discharge into light; the term does not include circline or U-shaped lamps.

"Consumer product" means any article (other than an automobile, as defined in section 501(1) of the federal Motor Vehicle Information and Cost Savings Act):

(1) of a type

(A) which in operation consumes, or is designed to consume, energy or, with respect to showerheads, faucets, water closets, and urinals, water; and

(B) which, to any significant extent, is distributed in commerce for personal use or consumption by individuals;

(2) without regard to whether such article of such type is in fact distributed in commerce for personal use or consumption by an individual, except that such term includes fluorescent lamp ballasts, general service fluorescent lamps, incandescent reflector lamps, showerheads, faucets, water closets, and urinals distributed in commerce for personal or commercial use or consumption.

"CSA" means Canadian Standards Association.

"DC" means direct current.

"Design standard" means a prescriptive standard, such as a ban on constant burning pilots or a requirement that a clothes washer have a particular feature.

“Directory” means a directory, a supplement thereto, or a part of a directory or supplement.

“EISA” means the Energy Independence and Security Act of 2007, 42 U.S.C. section 6291 et seq.

“Electric resistance heating” means the production of heat by passing electric current through a resistive element.

“Electronic ballast” means a device that uses semiconductors as the primary means to control lamp starting and operation.

“Energy Commission” means the State Energy Resources Conservation and Development Commission.

“Energy efficiency standard” means a performance standard expressed in numerical form, such as energy factor, EER, or thermal efficiency.

“EPAct” means the Energy Policy Act of 1992, 42 U.S.C. section 6291 et seq.

“EPAct 2005” means the Energy Policy Act of 2005, 42 U.S.C. section 6291 et seq.

“EPCA” means the Energy Policy and Conservation Act, as amended, 42 U.S.C. section 6291 et seq.

“Executive Director” means the Executive Director of the Energy Commission or his or her designee.

“°F” means degrees Fahrenheit.

“Federally regulated appliance” means an appliance that is federally regulated commercial and industrial equipment or a federally regulated consumer product.

“Federally regulated commercial and industrial equipment” means commercial and industrial equipment for which there exists a test method and an energy conservation standard prescribed by or under NAECA, EPAct, EPAct 2005, or EISA.

“Federally regulated consumer product” means a consumer product for which there exists a test method and an energy conservation standard prescribed by or under NAECA, EPAct, EPAct 2005, or EISA.

“fpm” means feet per minute.

“ft^3” means cubic feet.

“Gallon (g)” means U.S. liquid gallon.

“Gas” means natural gas or liquefied petroleum gas.

“gpm” means gallons per minute.

“HI” means the Hydraulic Institute.

“HI-A” means the Hydronics Institute section of AHRI.

“High intensity discharge (HID) lamp” means an electric-discharge lamp in which:

(1) the light-producing arc is stabilized by bulb wall temperature; and

(2) the arc tube has a bulb wall loading in excess of 3 Watts/cm2, including such lamps that are mercury vapor, metal halide, and high-pressure sodium lamps.

“HP” means horsepower.

“IAPMO” means the International Association of Plumbing and Mechanical Officials.

“Identifiers”, when referenced in relation to Table X data submittal requirements, means those fields shown in Table X for each specific appliance type that, when taken in combination for a specific model of a specific appliance type, represent the criteria for designating a model. At a minimum, each specific appliance type's model “identifiers” will include (a) manufacturer, (b) brand, and (c) model number. Individual appliance types may include additional fields as identifiers. All identifiers are represented in Table X by an asterisk (“*”). For purposes of compliance with section 1606(e)(1) of this Article, the identifiers represent fields that cannot be modified.

“IEC” means the International Electrotechnical Commission.

“ISO” means the International Organization for Standardization.

“kW” means kilowatt.

“kWh” means kilowatt-hour.

“Light emitting diode (LED)” means a p-n junction solid state device, the radiated output of which is a function of the physical construction, material used, and exciting current of the device. The output of a light-emitting diode may be in:

(1) the infrared region;

(2) the visible region; or

(3) the ultraviolet region.

“LPG” or “LP-gas” means liquefied petroleum gas, and includes propane, butane, and propane/butane mixtures.

“LPW” (lumens per watt) means “average lamp efficacy (LPW)” as defined in section 1602(k) of this Article.

“Luminaire” means a complete lighting unit consisting of a lamp or lamps together with the parts designed to distribute the light, to position, and protect the lamps and to connect the lamps to the power supply.

“MAEDbS” means the Modernized Appliance Efficiency Database System established pursuant to section 1606(c) of this Article and maintained by the Energy Commission.

“Manufacturer” means any person engaged in the original production or assembly of an appliance or commercial and industrial equipment or any person that assumes the complete legal responsibility for the original production or assembly of an appliance, which includes, but is not limited to, the responsibility normally held by the manufacturer for product liability, warranty, and compliance with State and federal law. “Manufacturer” also means a private brand packager or reassembler.

“Mercury vapor lamp” means a high intensity discharge lamp, including clear, phosphor-coated, and self-ballasted screw base lamps, in which the major portion of the light is produced by radiation from mercury typically operating at a partial vapor pressure in excess of 100,000 PA (approximately 1 atm).

“Mercury vapor lamp ballast” means a device that is designed and marketed to start and operate mercury vapor lamps intended for general illumination by providing the necessary voltage and current.

“Model” means any collection of appliance units to which the manufacturer has assigned the same model number.

“Model number” means a combination of letters, digits, or characters representing the manufacturer, brand, design, or performance of an appliance. In the case of electric motors, “model number” refers to the designation of a “basic model”, as defined in 10 C.F.R. section 431.12, in a manner specified by the Executive Director.

“NAECA” means the National Appliance Energy Conservation Act, 42 U.S.C. section 6291 et seq.

“NEMA” means the National Electrical Manufacturers Association.

“Non-federally regulated appliance” means an appliance that is neither federally regulated commercial and industrial equipment nor a federally regulated consumer product.

“NSF International” means the National Sanitation Foundation, International.

“OSA” means the Optical Society of America.

“Other mobile equipment” means transportation machinery including but not limited to cars, trucks, trains, airplanes, boats, and buses, but excluding mobile homes and manufactured homes.

“Ozone-depleting substance” means any substance that has been found by the United States Environmental Protection Agency to act as a catalyst in the breaking down of ozone, O_3, into molecular oxygen, O_2.

“Performance standard” means a standard that specifies a minimum level of energy or water efficiency or a maximum level of energy or water consumption of an appliance.

“Pin-based” means:

(1) the base of a fluorescent lamp that is not integrally ballasted and that has a plug-in lamp base, including multi-tube, multibend, spiral, and circline types; or

(2) a socket that holds such a lamp.

“Power factor” means the ratio of the real power to the apparent power.

“Private brand packager” means any person or entity that buys products from a manufacturer, packages them using its own brand name, and distributes them for sale using its own brand name.

“Reassembler” means any person or entity that buys products from a manufacturer, modifies them, and distributes them for sale using its own brand name.

“Recreational vehicle” means a van or utility vehicle used for recreational purposes.

“RPM” means revolutions per minute.

“Secretary” means the Secretary of the United States Department of Energy (U.S. DOE).

“Standby mode” means the condition in which an energy-using product:

(1) is connected to a main power source; and

(2) offers one or more of the following user-oriented or protective functions:

(A) to facilitate the activation or deactivation of other functions (including active mode) by remote switch (including remote control), internal sensor, or timer; or

(B) continuous functions, including information or status displays (including clocks) or sensor-based functions.

“Statement,” as used in section 1606 of this Article, means a single and complete line of data for a specific model and end-use, containing all the data required in Table X for that appliance type.

“UL” means Underwriters Laboratories, Inc.

“UPS” means uninterruptible power supply.

“U.S.C.” means the United States Code.

(b) Refrigerators, Refrigerator-Freezers, and Freezers.

“All-refrigerator” means refrigerator that does not include a compartment capable of maintaining compartment temperatures below 32°F (0.0°C) as determined according to the provisions in 10 C.F.R. section 429.14(d)(2). It may include a compartment of 0.50 ft^3 capacity (14.2 liters) or less for the freezing and storage of ice.

“Annual walk-in energy factor (AWEF)” means a ratio of the total heat, not including the heat generated by the operation of refrigeration systems, removed, in Btu, from a walk-in box during one year period of usage for refrigeration to the total energy input of refrigeration systems, in watt-hours, during the same period.

“Anti-condensate energy consumption (AEC)” means the anti-condensate energy consumption of commercial refrigeration equipment with two or more compartments as described in 10 C.F.R. section 431.66.

“Anti-sweat heater” means a device incorporated into the design of a product to prevent the accumulation of moisture on exterior or interior surfaces of the cabinet as defined in 10 C.F.R. part 430 Appendix A to subpart B.

“Anti-sweat heater switch” means a user-controllable switch or user interface which modifies the activation or control of anti-sweat heaters.

“Automatic commercial ice maker” means a factory-made assembly (not necessarily shipped in one package) that:

(1) consists of a condensing unit and ice-making section operating as an integrated unit, with means for making and harvesting ice; and

(2) may include means for storing ice, dispensing ice, or storing and dispensing ice.

“Automatic defrost system” or “automatic defrost” means a system in which the defrost cycle is automatically initiated and terminated, with resumption of normal refrigeration at the conclusion of the defrost operation. The system automatically prevents the permanent formation of frost on all refrigerated surfaces.

“Basic model” of federally regulated commercial refrigeration equipment means all commercial refrigeration equipment manufactured by one manufacturer within a single equipment class, having the same primary energy source, and that have essentially identical electrical, physical, and functional characteristics that affect energy consumption.

“Basic model” of a federally regulated walk-in cooler or walk-in freezer that is commercial or industrial equipment means all components of a given type of walk-in cooler or walk-in freezer (or class thereof) manufactured by one manufacturer, having the same primary energy source, and which have essentially identical electrical, physical, and functional (or hydraulic) characteristics that affect energy consumption, energy efficiency, water consumption, or water efficiency; and with respect to panels, which do not have any differing features or characteristics that affect U-factor.

“Batch type ice maker” means an ice maker having alternate freezing and harvesting periods. This includes automatic commercial ice makers that produce cube type ice and other batch technologies.

“Blast chiller” means a refrigerator designed to cool food products from 140°F to 40°F within four hours.

“Bottle-type water dispenser” means a water dispenser that uses a bottle or reservoir as the source of potable water.

“Bottled or canned beverage” means a beverage in a sealed container.

“Buffet table” means a commercial refrigerator, such as a salad bar, that is designed with mechanical refrigeration and that is intended to receive refrigerated food, to maintain food product temperatures, and for customer service.

"Built-in compact cooler" means any cooler with a total refrigerated volume less than 7.75 ft^3 and no more than 24 inches in depth, excluding doors, handles, and custom front panels, that is designed, intended, and marketed exclusively to be:

(1) installed totally encased by cabinetry or panels that are attached during installation;

(2) securely fastened to adjacent cabinetry, walls or floor;

(3) equipped with unfinished sides that are not visible after installation; and

(4) equipped with an integral factory-finished face or built to accept a custom front panel.

"Built-in cooler" means any cooler with a total refrigerated volume of 7.75 ft^3 or greater and no more than 24 inches in depth, excluding doors, handles, and custom front panels; that is designed, intended, and marketed exclusively to be:

(1) installed totally encased by cabinetry or panels that are attached during installation;

(2) securely fastened to adjacent cabinetry, walls or floor;

(3) equipped with unfinished sides that are not visible after installation; and

(4) equipped with an integral factory-finished face or built to accept a custom front panel.

"Built-in freezer" means any freezer with 7.75 ft^3 or greater total volume and 24 inches or less depth not including doors, handles, and custom front panels; with sides which are not finished and not designed to be visible after installation; and that is designed, intended, and marketed exclusively to:

(1) be installed totally encased by cabinetry or panels that are attached during installation,

(2) be securely fastened to adjacent cabinetry, walls or floor, and

(3) either be equipped with an integral factory-finished face or accept a custom front panel.

"Built-in refrigerator" means any refrigerator with 7.75 ft^3 or greater total volume and 24 inches or less depth not including doors, handles, and custom front panels; with sides which are not finished and not designed to be visible after installation; and that is designed, intended, and marketed exclusively to:

(1) be installed totally encased by cabinetry or panels that are attached during installation,

(2) be securely fastened to adjacent cabinetry, walls or floor, and

(3) either be equipped with an integral factory-finished face or accept a custom front panel.

"Built-in refrigerator-freezer" means any refrigerator-freezer with 7.75 ft^3 or greater total volume and 24 inches or less depth not including doors, handles, and custom front panels; with sides which are not finished and not designed to be visible after installation; and that is designed, intended, and marketed exclusively to:

(1) be installed totally encased by cabinetry or panels that are attached during installation,

(2) be securely fastened to adjacent cabinetry, walls or floor, and

(3) either be equipped with an integral factory-finished face or accept a custom front panel.

"Calculated daily energy consumption (CDEC)" means the calculated daily energy consumption of commercial refrigeration equipment with two or more compartments as described in 10 C.F.R. section 431.66.

"Chest freezer" means a freezer to which access is gained through a top-opening door.

"Class A," when used to define a refrigerated bottled or canned beverage vending machine, means a refrigerated bottled or canned beverage vending machine that is not a combination vending machine and in which 25 percent or more of the surface area on the front side of the beverage vending machine is transparent.

"Class B," when used to define a refrigerated bottled or canned beverage vending machine, means any refrigerated bottled or canned beverage vending machine not considered to be Class A, and is not a combination vending machine.

"Closed solid" means commercial refrigeration equipment with doors, and in which more than 75 percent of the outer surface area of all doors on a unit are not transparent.

"Closed transparent" means commercial refrigeration equipment with doors, and in which 25 percent or more of the outer surface area of all doors on the unit are transparent.

"Combination A" means a combination vending machine where 25 percent or more of the surface area on the front side of the beverage vending machine is transparent.

"Combination B" means a combination vending machine that is not considered to be Combination A.

"Combination cooler refrigeration product" means any cooler-refrigerator, cooler-refrigerator-freezer, or cooler-freezer.

"Combination vending machine" means a bottled or canned beverage vending machine containing two or more compartments separated by a solid partition, that may or may not share a product delivery chute, in which at least one compartment is designed to be refrigerated, as demonstrated by the presence of temperature controls, and at least one compartment is not.

“Commercial hybrid refrigerator, freezer, and refrigerator-freezer” means a commercial refrigerator, freezer, or refrigerator-freezer that consists of two or more thermally separated refrigeration compartments:

(1) that are in two or more different equipment families;

(2) and that is sold as a single unit.

“Commercial refrigerator, commercial freezer, or commercial refrigerator-freezer” means refrigeration equipment that:

(1) is not a federally regulated consumer product, within the meaning of 10 C.F.R. part 430, section 430.2;

(2) is not designed and marketed exclusively for medical, scientific, or research purposes;

(3) operates at a chilled, frozen, combination chilled and frozen, or variable temperature;

(4) displays or stores merchandise and other perishable materials horizontally, semi-vertically, or vertically;

(5) has transparent or solid doors, sliding or hinged doors, a combination of hinged, sliding, transparent, or solid doors, or no doors;

(6) is designed for pull-down temperature applications or holding temperature applications; and

(7) is connected to a self-contained condensing unit or to a remote condensing unit.

“Compact freezer” means a freezer that has total volume less than 7.75 ft^3 as determined using the applicable test procedure prescribed in 10 C.F.R. part 430, Appendix B of subpart B.

“Compact refrigerator” means a refrigerator that has total volume less than 7.75 ft^3 as determined using the applicable test procedure prescribed in 10 C.F.R. part 430, Appendix A of subpart B.

“Compact refrigerator-freezer” means a refrigerator-freezer that has total volume less than 7.75 ft^3 as determined using the applicable test procedure prescribed in 10 C.F.R. part 430, Appendix A of subpart B.

“Compressor energy consumption (CEC)” means the compressor energy consumption of commercial refrigeration equipment with two or more compartments as described in 10 C.F.R. section 431.66.

“Condensate evaporator pan energy consumption (PEC)” means the condensate evaporator pan energy consumption of commercial refrigeration equipment with two or more compartments as described in 10 C.F.R. section 431.66.

“Consumer refrigeration product” means a refrigerator, refrigerator-freezer, freezer, or miscellaneous refrigeration product.

“Continuous type ice maker” means an ice maker that continually freezes and harvests ice at the same time.

“Cooler” means a cabinet, used with one or more doors, that has a source of refrigeration capable of operating on single-phase, alternating current, and is capable of maintaining compartment temperatures either:

(1) No lower than 39°F (3.9°C); or

(2) In a range that extends no lower than 37°F (2.8°C) but at least as high as 60°F (15.6°C) as determined according to the applicable provisions in 10 C.F.R. section 429.61(d)(2).

“Cooler-all-refrigerator” means a cooler-refrigerator that does not include a compartment capable of maintaining compartment temperatures below 32°F (0°C) as determined according to the provisions in 10 C.F.R. section 429.61(d)(2). It may include a compartment of 0.50 ft^3 capacity (14.2 liters) or less for the freezing and storage of ice.

“Cooler compartment” means a refrigerated compartment designed exclusively for wine or other beverages within a consumer refrigeration product that is capable of maintaining compartment temperatures either (a) no lower than 39°F (3.9°C), or (b) in a range that extends no lower than 37°F (2.8°C) but at least as high as 60°F (15.6°C) as determined according to 10 C.F.R. section 429.14(d)(2) or section 429.61(d)(2).

“Cooler-freezer” means a cabinet, used with one or more doors, that has a source of refrigeration that requires single-phase, alternating current electric energy input only, and consists of two or more compartments, including at least one cooler compartment as defined in 10 C.F.R. part 430, Appendix A of subpart B, where the remaining compartment(s) are capable of maintaining compartment temperatures at 0°F (−17.8°C) or below as determined according to the provisions in 10 C.F.R. section 429.61(d)(2).

“Cooler-refrigerator” means a cabinet, used with one or more doors, that has a source of refrigeration that requires single-phase, alternating current electric energy input only, and consists of two or more compartments, including at least one cooler compartment as defined in 10 C.F.R. part 430, Appendix A of subpart B, where:

(1) at least one of the remaining compartments is not a cooler compartment as defined in 10 C.F.R. part 430, Appendix A of subpart B and is capable of maintaining compartment temperatures above 32°F (0°C) and below 39°F (3.9°C) as determined according to 10 C.F.R. section 429.61(d)(2);

(2) the cabinet may also include a compartment capable of maintaining compartment temperatures below 32°F (0°C) as determined according to 10 C.F.R. section 429.61(d)(2); but

(3) the cabinet does not provide a separate low temperature compartment capable of maintaining compartment temperatures below 8°F (−13.3°C) as determined according to 10 C.F.R. section 429.61(d)(2).

“Cooler-refrigerator-freezer” means a cabinet, used with one or more doors, that has a source of refrigeration that requires single-phase, alternating current electric energy input only, and consists of three or more compartments, including at least one cooler compartment as defined in 10 C.F.R. part 430, Appendix A of subpart B, where:

(1) At least one of the remaining compartments is not a cooler compartment as defined in 10 C.F.R. part 430, Appendix A of subpart B and is capable of maintaining compartment temperatures above 32°F (0°C) and below 39°F (3.9°C) as determined according to 10 C.F.R. section 429.61(d)(2); and

(2) At least one other compartment is capable of maintaining compartment temperatures below 8°F (−13.3°C) and may be adjusted by the user to a temperature of 0°F (−17.8°C) or below as determined according to 10 C.F.R. section 429.61(d)(2).

"Cube type ice" means ice that is fairly uniform, hard, solid, usually clear, and generally weighs less than two ounces (60 grams) per piece, as distinguished from flake, crushed, or fragmented ice.

"Defrost energy consumption (DEC)" means the defrost energy consumption of commercial refrigeration equipment with two or more compartments as described in 10 C.F.R. section 431.66.

"Display door" means a door that:

(1) Is designed for product display; or

(2) Has 75 percent or more of its surface area composed of glass or another transparent material.

"Door" means a movable panel that separates the interior volume of a unit of commercial refrigeration equipment from the ambient environment and is designed to facilitate access to the refrigerated space for the purpose of loading and unloading product. This includes hinged doors, sliding doors, and drawers. This does not include night curtains.

"Door" of a walk-in cooler or walk-in freezer means an assembly installed in an opening on an interior or exterior wall that is used to allow access or close off the opening and that is movable in a sliding, pivoting, hinged, or revolving manner of movement. For walk-in coolers and walk-in freezers, a door includes the door panel, glass, framing materials, door plug, mullion, and any other elements that form the door or part of its connection to the wall.

"Door angle" means, for equipment with:

(1) flat doors, the angle between a vertical line and the line formed by the plane of the door, when the equipment is viewed in cross-section; and

(2) curved doors, the angle formed between a vertical line and the straight line drawn by connecting the top and bottom points where the display area glass joins the cabinet, when the equipment is viewed in cross-section.

"Drawer unit" means a residential refrigerator, residential freezer, or residential refrigerator-freezer, one or more of whose externally-accessed compartments are drawers.

"Energy use" of an automatic commercial ice maker means the total energy consumed, stated in kilowatt hours per one-hundred pounds (kWh/100 lb) of ice stated in multiples of 0.1. For remote condensing (but not remote compressor) automatic commercial ice makers and remote condensing and remote compressor automatic commercial ice makers, total energy consumed

shall include the energy use of the ice-making mechanism, the compressor, and the remote condenser or condensing unit.

“Envelope” of a walk-in cooler or walk-in freezer means:

(1) the portion of a walk-in cooler or walk-in freezer that isolates the interior, refrigerated environment from the ambient, external environment; and

(2) all energy-consuming components of the walk-in cooler or walk-in freezer that are not part of its refrigeration system.

“Fan energy consumption (FEC)” means the fan energy consumption of commercial refrigeration equipment with two or more compartments as described in 10 C.F.R. section 431.66.

“Flake ice” means ice produced by freezing a thin layer of water on a refrigerated cylinder and removing by a scraper.

“Freezer” means a cabinet that is designed as a unit for the freezing and storage of food, beverages, or ice at temperatures of 0°F or below and that has a source of refrigeration requiring an energy input.

“Freezer” that is a federally regulated consumer product means a cabinet, used with one or more doors, that has a source of refrigeration that requires single-phase, alternating current electric energy input only and is capable of maintaining compartment temperatures of 0°F (−17.8°C) or below as determined according to the provisions in 10 C.F.R. section 429.14(d)(2). It does not include any refrigerated cabinet that consists solely of an automatic ice maker and an ice storage bin arranged so that operation of the automatic icemaker fills the bin to its capacity. However, the term does not include any:

(1) product that does not include a compressor and condenser unit as an integral part of the cabinet assembly; or

(2) miscellaneous refrigeration product that must comply with an applicable miscellaneous refrigeration product energy conservation standard.

“Freezer volume” means net freezer compartment volume as defined in “adjusted total volume” definition found in 10 C.F.R. part 430, Appendix B to subpart B.

“Freight door” means a door that is not a display door and is equal to or larger than 4 feet wide and 8 feet tall.

“Harvest rate” means the amount of ice (at 32°F) in pounds produced per 24 hours.

“Holding temperature application” means a use of commercial refrigeration equipment other than a pull-down temperature application, except a blast chiller or freezer.

“Horizontal closed” means commercial refrigeration equipment with hinged or sliding doors and a door angle greater than or equal to 45°.

“Horizontal open” means commercial refrigeration equipment without doors and an air-curtain angle greater than or equal to 80° from the vertical.

“Ice cream cabinet” means a reach-in cabinet commercial freezer that has top, or top and side, doors that are hinged or sliding and that is designed for the storage or dispensing of ice cream or similar foods.

“Ice cream freezer” means a commercial freezer that is designed to operate at or below -5°F (± 2°F) (-21°C ± 1.1°C) and that the manufacturer designs, markets, or intends for the storing, displaying, or dispensing of ice cream.

“Ice hardness factor” means the latent heat capacity of harvested ice, in British thermal units per pound of ice (Btu/lb), divided by 144 Btu/lb, expressed as a percent.

“Ice-making head” means automatic commercial ice makers that do not contain integral storage bins, but are generally designed to accommodate a variety of bin capacities. Storage bins entail additional energy use not included in the reported energy consumption figures for these units.

“Integrated average temperature” means the average temperature of all test package measurements taken during the test as determined using the applicable test method in section 1604(a) of this Article.

“Kitchen unit” means a compact refrigerator, with or without an internal freezer, integrated with other appliances or facilities, including but not limited to microwave ovens, sinks, and electric cooktops.

“Lighting energy consumption (LEC)” means the lighting energy consumption of commercial refrigeration equipment with two or more compartments as described in 10 C.F.R. section 431.66.

“Manual defrost system” means a defrost system in which the defrosting action for refrigerated surfaces is initiated or terminated manually.

“Maximum condenser water use” of an automatic commercial ice maker means the maximum amount of water used by the condensing unit (if water-cooled), stated in gallons per 100 pounds (gal/100 lb) of ice, in multiples of one.

“Maximum daily energy consumption (MDEC)” means the maximum daily energy consumption in kilowatt hours per day.

“Milk, beverage, and ice cream cabinet” means a reach-in cabinet commercial refrigerator-freezer that has top, or both top and side, doors that are hinged or sliding and that is designed for the storage or dispensing of milk or other beverages, and ice cream or similar foods.

“Milk or beverage cabinet” means a reach-in cabinet commercial refrigerator that has top, or both top and side, doors that are hinged or sliding and that is designed for the storage or dispensing of milk or other beverages.

“Miscellaneous refrigeration product” means a federally regulated consumer refrigeration product other than a refrigerator, refrigerator-freezer, or freezer, which includes coolers and combination cooler refrigeration products.

“Non-commercial freezer” means a freezer:

(1) that is a federally regulated consumer product or

(2) exceeding 30 ft^3 but not exceeding 39 ft^3 that is a consumer product.

"Non-commercial refrigerator" means a refrigerator that is a federally regulated consumer product.

"Non-commercial refrigerator-freezer" means a refrigerator-freezer that is a federally regulated consumer product.

"Operating temperature" means the range of integrated average temperatures at which a self-contained commercial refrigeration unit or remote-condensing commercial refrigeration unit with a thermostat is capable of operating or, in the case of a remote-condensing commercial refrigeration unit without a thermostat, the range of integrated average temperatures at which the unit is marketed, designed, or intended to operate.

"Partial automatic defrost system" means a defrost system in which the defrosting action for refrigerated surfaces in the refrigerator compartment is initiated and terminated automatically and the defrosting action for refrigerated surfaces in the freezer is initiated manually.

"Passage door" means a door that is not a freight or display door.

"Pass-through cabinet" means a commercial refrigerator or commercial freezer with hinged or sliding doors on both front and rear of the refrigerator or freezer.

"Point of use water dispenser" means a water dispenser that uses a pressurized water utility connection as the source of potable water.

"Preparation table" means a commercial refrigerator with a countertop refrigerated compartment with or without cabinets below, and with self-contained refrigeration equipment.

"Pull-down temperature application" means a commercial refrigerator with doors that, when fully loaded with 12 ounce beverage cans at 90°F, can cool those beverages to an average stable temperature of 38°F in 12 hours or less.

"Rating temperature" means the integrated average temperature a unit must maintain during testing (i.e., either as listed in Tables A-4, A-5, or A-6 of this Article or the lowest application product temperature).

"Reach-in cabinet" means a commercial refrigerator, commercial refrigerator-freezer, or commercial freezer with hinged or sliding doors or lids, but excluding roll-in or roll-through cabinets and pass-through cabinets.

"Refrigerated bottled or canned beverage vending machine" means a commercial refrigerator that cools bottled or canned beverages and dispenses the bottled or canned beverages upon payment.

"Refrigerator" means a cabinet used with one or more doors, that has a source of refrigeration that requires single-phase, alternating current electric energy input only and is capable of maintaining compartment temperatures above 32°F (0°C) and below 39°F (3.9°C) as determined according to 10 C.F.R. section 429.14(d)(2). A refrigerator may include a compartment capable of maintaining compartment temperatures below 32°F (0°C), but does not

provide a separate low temperature compartment capable of maintaining compartment temperatures below 8°F (−13.3°C) as determined according to 10 C.F.R. section 429.14(d)(2). However, the term does not include:

(1) any product that does not include a compressor and condenser unit as an integral part of the cabinet assembly;

(2) a cooler; or

(3) any miscellaneous refrigeration product that must comply with an applicable miscellaneous refrigeration product energy conservation standard.

"Refrigerator compartment" means a compartment designed for the refrigerated storage of food, including but not limited to solid food and wine, beer, and other beverages, at temperatures above 32°F.

"Refrigerator volume" means fresh food compartment volume as defined in 10 C.F.R. part 430, Appendix A to subpart B.

"Refrigerator-freezer" means a cabinet, used with one or more doors, that has a source of refrigeration that requires single-phase, alternating current electric energy input only and consists of two or more compartments where at least one of the compartments is capable of maintaining compartment temperatures above 32° F (0° C) and below 39° F (3.9° C) as determined according to 10 C.F.R. section 429.14(d)(2), and at least one other compartment is capable of maintaining compartment temperatures of 8° F (−13.3° C) and may be adjusted by the user to a temperature of 0° F (−17.8° C) or below as determined according to 10 C.F.R. section 429.14(d)(2). However, the term does not include:

(1) Any product that does not include a compressor and condenser unit as an integral part of the cabinet assembly; or

(2) Any miscellaneous refrigeration product that must comply with an applicable miscellaneous refrigeration product energy conservation standard.

"Remote," in reference to any refrigerator, freezer, refrigerator-freezer, reach-in cabinet, pass-through cabinet, roll-in or roll-through cabinet, walk-in cooler, or walk-in freezer means an appliance that:

(1) receives refrigerant fluid from a condensing unit located externally to its cabinet assembly; and

(2) is capable of being purchased and installed with different types of compressor or condenser, so that its efficiency depends on the type of compressor or condenser applied by the purchaser, installer, or user.

"Remote condensing unit" means a factory-made assembly of refrigerating components designed to compress and liquefy a specific refrigerant that is remotely located from the refrigerated equipment and consists of one or more refrigerant compressors, refrigerant condensers, condenser fans and motors, and factory supplied accessories.

"Roll-in or roll-through cabinet" means a commercial refrigerator or commercial freezer that allows wheeled racks of product to be rolled into or through the refrigerator or freezer.

“Self-contained condensing unit” means a factory-made assembly of refrigerating components designed to compress and liquefy a specific refrigerant that is an integral part of the refrigerated equipment and consists of one or more refrigerant compressors, refrigerant condensers, condenser fans and motors, and factory supplied accessories.

“Self-contained freezer” means a freezer that has the condensing unit mounted in or on the freezer cabinet.

“Self-contained refrigerator” means a refrigerator that has the condensing unit mounted in or on the refrigerator cabinet.

“Self-contained refrigerator-freezer” means a refrigerator-freezer that has the condensing unit mounted in or on the refrigerator-freezer cabinet.

“Semivertical open” means commercial refrigeration equipment without doors and an air-curtain angle greater than or equal to 10° and less than 80° from the vertical.

“Separate auxiliary compartment” of a federally regulated consumer-product freezer means a freezer compartment other than the primary freezer compartment of a freezer having more than one compartment. Access to a separate auxiliary compartment is through a separate exterior door or doors rather than through the door or doors of another compartment. Separate auxiliary freezer compartments may not be larger than the primary freezer compartment.

“Separate auxiliary compartment” of a federally regulated consumer product refrigerator, refrigerator-freezer, or miscellaneous refrigeration product means a separate freezer, fresh food, or cooler compartment that is not the primary freezer, primary fresh food, or primary cooler compartment. Separate auxiliary compartments may also be convertible (e.g., from fresh food to freezer). Separate auxiliary compartments may not be larger than the primary compartment of their type, but such size restrictions do not apply to separate auxiliary convertible compartments.

“Service over counter” means equipment that has sliding or hinged doors in the back intended for use by sales personnel, with glass or other transparent material in the front for displaying merchandise, and that has a height not greater than 66 inches and is intended to serve as a counter for transactions between sales personnel and customers. “Service over the counter, self-contained, medium temperature commercial refrigerator”, also defined in this section, is one specific equipment class within the service over counter equipment family).

“Service over the counter, self-contained, medium temperature commercial refrigerator” means a commercial refrigerator:

(1) That operates at temperatures at or above 32° F;

(2) With a self-contained condensing unit;

(3) Equipped with sliding or hinged doors in the back intended for use by sales personnel, and with glass or other transparent material in the front for displaying merchandise; and

(4) That has a height not greater than 66 inches and is intended to serve as a counter for transactions between sales personnel and customers.

“Special compartment” that is part of a federally regulated freezer consumer product means any compartment without doors directly accessible from the exterior, and with separate temperature control that is not convertible from fresh food temperature range to freezer temperature range.

“Special compartment” that is part of a federally regulated refrigerator or refrigerator-freezer consumer product means any compartment other than a butter conditioner or a cooler compartment, without doors directly accessible from the exterior, and with separate temperature control (such as crispers convertible to meat keepers) that is not convertible from the fresh food temperature range to the freezer temperature range.

“Standard vendible capacity” means the maximum quantity of standard product that can be dispensed from one full loading of a refrigerated bottled or canned beverage vending machine without further reload operations when used as recommended by the manufacturer.

“Through-the-door ice/water dispenser” means a device incorporated within the cabinet, but outside the boundary of the refrigerated space, that delivers to the user on demand ice and may also deliver water from within the refrigerated space without opening an exterior door. This definition includes dispensers that are capable of dispensing ice and water or ice only.

“Total daily energy consumption (TDEC)” means the total daily energy consumption of commercial refrigeration equipment with two or more compartments as described in 10 C.F.R. section 431.66.

“Total display area (TDA)” of a commercial refrigerator, commercial freezer, or commercial refrigerator-freezer means the total display area (ft^2) of the case, as defined in the AHRI Standard 1200–2006, Appendix D (I-P)-2010 (as referenced in 10 C.F.R. section 431.66).

“Transparent” means greater than or equal to 45 percent light transmittance, as determined in accordance with the ASTM Standard E 1084-86 (Reapproved 2009), at normal incidence and in the intended direction of viewing.

“Undercounter cabinet” means a reach-in cabinet commercial refrigerator or reach-in cabinet commercial freezer that has no worktop surface and that is intended for installation under a separate counter.

“Upright freezer” means a freezer to which access is gained through a side-opening door.

“Vertical closed” means commercial refrigeration equipment with hinged or sliding doors and a door angle less than 45°.

“Vertical open” means commercial refrigeration equipment without doors and an air-curtain angle greater than or equal to 0° and less than 10° from the vertical.

“Walk-in cooler” means an enclosed storage space refrigerated to temperatures above 32°F that can be walked into and has a total chilled storage area of less than 3,000 square feet. “Walk-in cooler” does not include products designed and marketed exclusively for medical, scientific, or research purposes.

“Walk-in freezer” means an enclosed storage space refrigerated to temperatures at or below 32°F that can be walked into and has a total chilled storage area of less than 3,000 square

feet. “Walk-in freezer” does not include products designed and marketed exclusively for medical, scientific, or research purposes.

“Water dispenser” means a factory-made assembly that mechanically cools and heats potable water and that dispenses the cooled and heated water by integral or remote means.

“Wedge case” means a commercial refrigerator, freezer, or refrigerator-freezer that forms the transition between two regularly shaped display cases.

“Worktop table” means a counter-height commercial refrigerator or freezer with a worktop surface.

(c) Air Conditioners, Air Filters, and Heat Pump Water Heating Packages.

“Air conditioner” means an appliance that supplies cooled air to a space for the purpose of cooling objects within the space.

“Air-cooled air conditioner” means an air conditioner using an air-cooled condenser.

“Air filter” means an air-cleaning device installed in forced-air heating or cooling equipment and used for removing particulate matter from the air.

“Air filter depth” means air filter thickness dimension measured perpendicular to the face area plane, expressed in inches.

“Air filter media” means the part of the air filter that conducts the actual removal of particulates.

“Airflow rate” of an air filter means the actual volume of air passing through the device per unit of time, expressed in cubic-feet-per-minute, to three significant figures.

“Air-source heat pump” means an appliance that consists of one or more factory-made assemblies, that includes an indoor conditioning coil, a compressor, and a refrigerant-to-air heat exchanger, and that provides heating and cooling functions.

“Basic model” of a federally regulated central air conditioner or central air conditioning heat pump means all units of a given type of central air conditioner or central air conditioning heat pump (or class thereof) manufactured by one manufacturer, having the same primary energy source, and which have essentially identical electrical, physical, and functional (or hydraulic) characteristics that affect energy consumption, energy efficiency, water consumption, or water efficiency. With respect to central air conditioners and central air conditioning heat pumps, essentially identical electrical physical, and functional (or hydraulic) characteristics means:

(1) for split systems manufactured by outdoor unit manufacturers: all individual combinations having the same model of outdoor unit, which means comparably performing compressor(s) [a variation of no more than five percent in displacement rate (volume per time) as rated by the compressor manufacturer, and no more than five percent in capacity and power input for the same operating conditions as rated by the compressor manufacturer], outdoor coil(s) [no more than five percent variation in face area and total fin surface area; same fin material; same tube material], and outdoor fan(s) [no more than ten percent variation in air flow and no more than twenty percent variation in power input];

(2) for split systems having indoor units manufactured by independent coil manufacturers: all individual combinations having comparably performing indoor coil(s) [plus or minus one square foot face area, plus or minus one fin per inch fin density, and the same fin material, tube material, number of tube rows, tube pattern, and tube size]; and

(3) for single-package systems: all individual models having comparably performing compressor(s) [no more than five percent variation in displacement rate (volume per time) rated by the compressor manufacturer, and no more than five percent variations in capacity and power input rated by the compressor manufacturer corresponding to the same compressor rating conditions], outdoor coil(s) and indoor coil(s) [no more than five percent variation in face area and total fin surface area; same fin material; same tube material], outdoor fan(s) [no more than ten percent variation in outdoor air flow], and indoor blower(s) [no more than ten percent variation in indoor air flow, with no more than twenty percent variation in fan motor power input];

(4) except that:

(A) for single-package systems and single-split systems, manufacturers may instead choose to make each individual model/combination its own basic model provided the testing and represented value requirements in 10 CFR section 429.16 are met; and

(B) For multi-split, multi-circuit, and multi-head mini-split combinations, a basic model may not include both individual small-duct, high velocity (SDHV) combinations and non-SDHV combinations even when they include the same model of outdoor unit. The manufacturer may choose to identify specific individual combinations as additional basic models.

“Basic model” of federally regulated computer room air conditioners means all units manufactured by one manufacturer within a single equipment class, having the same primary energy source (e.g., electric or gas), and which have the same or comparably performing compressor(s), heat exchangers, and air moving system(s) that have a common “nominal” cooling capacity.

“Basic model” of federally regulated packaged terminal air conditioner (PTAC) or packaged terminal heat pump (PTHP) means all units manufactured by one manufacturer within a single equipment class, having the same primary energy source (e.g., electric or gas), and which have the same or comparable compressors, same or comparable heat exchangers, and same or comparable air moving systems that have a cooling capacity within 300 Btu/h of one another.

“Basic model” of federally regulated single package vertical units means all units manufactured by one manufacturer within a single equipment class, having the same primary energy source (e.g., electric or gas), and which have the same or comparably performing compressor(s), heat exchangers, and air moving system(s) that have a rated cooling capacity within 1500 Btu/h of one another.

“Basic model” of federally regulated small, large, and very large air-cooled or water-cooled commercial package air conditioning and heating equipment means all units manufactured by one manufacturer within a single equipment class, having the same or comparably performing compressor(s), heat exchangers, and air moving system(s) that have a common “nominal” cooling capacity.

“Basic model” of federally regulated small, large, and very large water source heat pump means all units manufactured by one manufacturer within a single equipment class, having the same primary energy source (e.g., electric or gas), and which have the same or comparable

compressors, same or comparable heat exchangers, and same or comparable “nominal” capacity.

“Basic model” of federally regulated variable refrigerant flow systems means all units manufactured by one manufacturer within a single equipment class, having the same primary energy source (e.g., electric or gas), and which have the same or comparably performing compressor(s) that have a common “nominal” cooling capacity and the same heat rejection medium (e.g., air or water) (includes VRF water source heat pumps).

“Blower coil indoor unit” means an indoor unit either with an indoor blower housed with the coil or with a separate designated air mover such as a furnace or a modular blower (as defined in 10 C.F.R. part 430 Appendix AA to subpart B).

“Blower coil system” refers to a split system that includes one or more blower coil indoor units.

“Casement-only” means a room air conditioner designed for mounting in a casement window with an encased assembly with a width of 14.8 inches or less and a height of 11.2 inches or less.

“Casement-slider” means a room air conditioner with an encased assembly designed for mounting in a sliding or casement window with a width of 15.5 inches or less.

“Casement window” means a window that opens on hinges at the side.

“Central air conditioner” that is a federally regulated consumer product means a product, other than a packaged terminal air conditioner or packaged terminal heat pump, which is powered by single phase electric current, air cooled, rated below 65,000 Btu per hour, not contained within the same cabinet as a furnace, the rated capacity of which is above 225,000 Btu per hour, and is a cooling unit only. A central air conditioner may consist of: a single-package unit; an outdoor unit and one or more indoor units; an indoor unit only; or an outdoor unit with no match. In the case of an indoor unit only or an outdoor unit with no match, the unit must be tested and rated as a system (combination of both an indoor and an outdoor unit).

“Central air-conditioning heat pump” that is a federally regulated consumer product means a product, other than a packaged terminal air conditioner or packaged terminal heat pump, which is powered by single phase electric current, air cooled, rated below 65,000 Btu per hour, not contained within the same cabinet as a furnace, the rated capacity of which is above 225,000 Btu per hour, and is a heat pump or a cooling unit only. A central air conditioner or central air conditioning heat pump may consist of: a single-package unit; an outdoor unit and one or more indoor units; an indoor unit only; or an outdoor unit with no match. In the case of an indoor unit only or an outdoor unit with no match, the unit must be tested and rated as a system (combination of both an indoor and an outdoor unit).

“Coefficient of Performance (COP)” of federally regulated consumer products means the ratio of the average rate of space heating delivered to the average rate of electrical energy consumed by the heat pump. These rate quantities must be determined from a single test or, if derived via interpolation, must be determined at a single set of operating conditions. COP is a dimensionless quantity. When determined for a ducted coil-only system, COP must include sections 3.7 and 3.9.1 of 10 C.F.R. section 430.23(m) (Appendix M to subpart B of part 430): default values for the heat output and power input of a fan motor.

“Coefficient of Performance (COP)” of federally regulated commercial and industrial equipment means the ratio of the produced cooling effect of an air conditioner or heat pump (or its produced heating effect, depending on the mode of operation) to its net work input, when both the cooling (or heating) effect and the net work input are expressed in identical units of measurement, as determined using the applicable test method in section 1604(b) or 1604(c) of this Article.

“Commercial package air-conditioning and heating equipment” means federally regulated air-cooled, water-cooled, evaporatively cooled, or water source (not including ground water source) electrically operated, unitary central air conditioners and central air-conditioning heat pumps for commercial application.

“Coil-only indoor unit” means an indoor unit that is distributed in commerce without an indoor blower or separate designated air mover. A coil-only indoor unit installed in the field relies on a separately installed furnace or a modular blower for indoor air movement. Coil-only system refers to a system that includes only (one or more) coil-only indoor units.

“Compressor power” of a packaged terminal air conditioner or packaged terminal air-conditioning heat pump means the rate of electrical consumption of a compressor, in watts.

“Computer room air conditioner” means a basic model of commercial package air-conditioning and heating equipment (packaged or split) that is:

(1) used in computer rooms, data processing rooms, or other information technology cooling applications;

(2) rated for sensible coefficient of performance (SCOP) and tested in accordance with 10 C.F.R. section 431.96, and

(3) not a covered consumer product under 42 U.S.C. sections 6291(1)–(2) and 6292.

A computer room air conditioner may be provided with, or have as available options, an integrated humidifier, temperature, and/or humidity control of the supplied air, and reheating function.

“Cooling capacity” means a measure of the ability of an air conditioner to remove heat from an enclosed space, as determined using the applicable test method in section 1604(b) or 1604(c) of this Article.

“Double-duct air conditioner or heat pump” means federally regulated air-cooled commercial package air conditioning and heating equipment that:

(1) is either a horizontal single package or split-system unit; or a vertical unit that consists of two components that may be shipped or installed either connected or split;

(2) is intended for indoor installation with ducting of outdoor air from the building exterior to and from the unit, as evidenced by the unit and/or all of its components being non-weatherized, including the absence of any marking (or listing) indicating compliance with UL 1995, “Heating and Cooling Equipment,” or any other equivalent requirements for outdoor use;

(3) if it is:

(A) a horizontal unit, a complete unit has a maximum height of 35 inches;

(B) a vertical unit, a complete unit has a maximum depth of 35 inches; and

(4) has a rated cooling capacity greater than or equal to 65,000 Btu/hour and up to 300,000 Btu/hour.

"Ducted system" of a federally regulated consumer product means an air conditioner or heat pump that is designed to be permanently installed equipment and delivers conditioned air to the indoor space through a duct(s). The air conditioner or heat pump may be either a split-system or a single-package unit.

"Dust holding capacity" of an air filter means the total weight of the synthetic loading dust captured by the filter device over all of the incremental dust loading steps of the test.

"Energy Efficiency Ratio (EER)" means the ratio of the average rate of space cooling delivered to the average rate of electrical energy consumed by the central air conditioner or heat pump. These rate quantities must be determined from a single test or, if derived via interpolation, must be determined at a single set of operating conditions. EER is expressed in units of Btu/watt-hour, as determined using the applicable test method in section 1604(c) of this Article. When determined for a ducted coil-only central system, EER must include the section 3.3 and 3.5.1 default values for the heat output and power input of a fan motor found in 10 C.F.R. section 430.23(m) (Appendix M to subpart B of part 430).

"Energy Efficiency Ratio (EER)" of federally regulated commercial and industrial equipment means the ratio of the produced cooling effect of an air conditioner or heat pump to its net work input, expressed in Btu/watt-hour.

"Evaporatively cooled air conditioner" means an air conditioner whose refrigerating system has an evaporatively cooled condenser.

"Face area" of an air filter means the gross area of the air filter exposed to airflow, as measured in a plane perpendicular to the direction of the airflow approaching the air filter (air filter length multiplied by air filter width), expressed in square-feet.

"Face velocity" of an air filter means the rate of air movement at the face of the air filter (airflow rate divided by face area) expressed in feet-per-minute.

"Final resistance" of an air filter means the resistance to airflow of the air filter operating at the point where the test is terminated and results determined.

"Gas-fired air-conditioner" means an air conditioner which utilizes gas as the primary fuel.

"Gas-fired heat pump" means a heat pump which utilizes gas as the primary fuel.

"Ground source closed-loop heat pump" means an appliance that:

(1) consists of one or more factory-made assemblies;

(2) includes an indoor conditioning coil with air moving means, a compressor, and a refrigerant-to-ground heat exchanger; and

(3) provides heating, cooling, or heating and cooling functions.

“Ground water-source heat pump” means an appliance that

(1) consists of one or more factory-made assemblies;

(2) includes an indoor conditioning coil with air moving means, a compressor, and a refrigerant-to-water heat exchanger; and

(3) provides heating, cooling, or heating and cooling functions.

“Heat pump” that is a federally regulated consumer product means a type of central air conditioner that utilizes an indoor conditioning coil, compressor, and refrigerant-to-outdoor air heat exchanger to provide air heating; and may also provide air cooling, air dehumidifying, air humidifying, air circulating, and air cleaning.

“Heat pump water-heating package” means a factory-made package of one or more compressors, condensers, and evaporators designed for the purpose of heating water. Where such equipment is provided in one or more than one assembly, the separate assemblies are designed to be used together. The package is specifically designed to make use of the refrigerant cycle to remove heat from an air or water source and to reject the heat to water for heating use. This unit may include valves to allow for reverse-cycle (cooling) operation.

“Heat recovery” (in the context of variable refrigerant flow multi-split air conditioners or variable refrigerant flow multi-split heat pumps) means that the air conditioner or heat pump is also capable of providing simultaneous heating and cooling operation, where recovered energy from the indoor units operating in one mode can be transferred to one or more other indoor units operating in the other mode. A variable refrigerant flow multi-split heat recovery heat pump is a variable refrigerant flow multi-split heat pump with the addition of heat recovery capability.

“Heating Seasonal Performance Factor (HSPF)” of a federally regulated consumer product means the total space heating required during the heating season, expressed in Btu's, divided by the total electrical energy consumed by the heat pump system during the same season, expressed in watt-hours, as determined using the applicable test method in section 1604(c) of this Article. The HSPF used to evaluate compliance with 10 C.F.R. 430.32(c) is based on Region IV, the minimum standardized design heating requirement, and the sampling plan stated in 10 C.F.R. 429.16(a).

“Heating Seasonal Performance Factor (HSPF)” of federally regulated commercial and industrial equipment means the total heating output of a central air-conditioning heat pump during its normal annual usage period for heating, expressed in Btu's and divided by the total electric power input, expressed in watt-hours, during the same period.

“Indoor fan electrical input” means the electrical input required for the operation of an indoor fan, in watts.

“Indoor fan motor nominal horsepower” means the horsepower of an indoor fan motor as listed on the fan motor's nameplate.

“Indoor fan motor type” means the internal construction design of a motor.

“Initial resistance” of an air filter means the resistance of the air filter operating at its rated airflow rate, as published by the manufacturer, with no dust load.

“Integrated Energy Efficiency Ratio (IEER)” of federally regulated commercial equipment means a weighted average calculation of mechanical cooling EERs determined for four load levels and corresponding rating conditions, as measured in 10 C.F.R part 431, Appendix A of subpart F, expressed in Btu/watt-hour.

“Large commercial package air-conditioning and heating equipment” means federally regulated commercial package air-conditioning and heating equipment that is rated:

(1) at or above 135,000 Btu per hour; and

(2) below 240,000 Btu per hour (cooling capacity).

“Maximum rated airflow rate” of an air filter means the highest airflow rate at which the air filter is operated, as published by the manufacturer.

“Minimum efficiency reporting value (MERV)” of an air filter means the composite particle efficiency metric defined in ASHRAE 52.2-2012.

“Multi-head mini-split system” means a split system that has one outdoor unit and that has two or more indoor units connected with a single refrigeration circuit. The indoor units operate in unison in response to a single indoor thermostat.

“Multiple-circuit (or multi-circuit) system” means a split system that has one outdoor unit and that has two or more indoor units installed on two or more refrigeration circuits such that each refrigeration circuit serves a compressor and one and only one indoor unit, and refrigerant is not shared from circuit to circuit.

“Multiple-split (or multi-split) system” means a split system that has one outdoor unit and two or more coil-only indoor units and/or blower coil indoor units connected with a single refrigerant circuit. The indoor units operate independently and can condition multiple zones in response to at least two indoor thermostats or temperature sensors. The outdoor unit operates in response to independent operation of the indoor units based on control input of multiple indoor thermostats or temperature sensors, and/or based on refrigeration circuit sensor input (e.g., suction pressure).

“Non-standard size” means a packaged terminal air conditioner or packaged terminal heat pump with existing wall sleeve dimensions having an external wall opening of less than 16 inches high or less than 42 inches wide, and a cross-sectional area less than 670 square inches.

“Outdoor fan electrical input” means the electrical input required for the operation of an outdoor fan, in watts.

“Outdoor fan motor nominal horsepower” means the horsepower of an outdoor fan motor as listed on the fan motor's nameplate.

“Packaged terminal air conditioner” means a wall sleeve and a separate un-encased combination of heating and cooling assemblies specified by the builder and intended for mounting

through the wall and that is industrial equipment. It includes a prime source of refrigeration, separable outdoor louvers, forced ventilation, and heating availability by builder's choice of hot water, steam, or electricity.

“Packaged terminal heat pump” means a packaged terminal air conditioner that utilizes reverse cycle refrigeration as its prime heat source, that has a supplementary heating source available, with the choice of hot water, steam, or electric resistant heat, and that is industrial equipment.

“Particle size” of an air filter means the polystyrene latex (PSL) light-scattering equivalent size of particulate matter as expressed as a diameter in micrometers (µm).

“Particle size efficiency” of an air filter also known as “particle size removal efficiency” means the fraction (percentage) of particles that are captured on the air filter. Particle size efficiency is measured in three particle size ranges: 0.3-1.0, 1.0-3.0, 3.0-10 micrometers (µm). Particle size efficiency abbreviated as “PSE” in the required labels for air filters.

“Premium motor” means a premium motor as defined in NEMA Premium™: Product Scope and Nominal Efficiency Levels (2001).

“Pressure drop” of an air filter means the drop in static pressure versus air flow rate across air filter media in the forced-air heating or cooling equipment.

“Room air conditioner” means a federally regulated consumer product, other than a “packaged terminal air conditioner,” which is powered by a single phase electric current and which is an encased assembly designed as a unit for mounting in a window or through the wall for the purpose of providing delivery of conditioned air to an enclosed space. It includes a prime source of refrigeration and may include a means for ventilating and heating.

“Seasonal Energy Efficiency Ratio (SEER)” of a federally regulated consumer product means the total heat removed from the conditioned space during the annual cooling season, expressed in Btu's, divided by the total electrical energy consumed by the central air conditioner or heat pump during the same season, expressed in watt-hours, as determined using the applicable test method in section 1604(c) of this Article.

“Seasonal Energy Efficiency Ratio (SEER)” of federally regulated commercial and industrial equipment means the total cooling output of a central air conditioner or central air-conditioning heat pump, expressed in Btu's, during its normal annual usage period for cooling and divided by the total electric power input, expressed in watt-hours, during the same period.

“Sensible coefficient of performance” (SCOP) means the net sensible cooling capacity in watts divided by the total power input in watts (excluding reheaters and humidifiers).

“Single package central air conditioner” means a central air conditioner in which all the major assemblies are enclosed in one cabinet.

“Single package heat pump” means a heat pump in which all the major assemblies are enclosed in one cabinet.

“Single package vertical air conditioner” means air-cooled commercial package air conditioning and heating equipment that:

(1) is factory-assembled as a single package that:

(A) has major components that are arranged vertically;

(B) is an encased combination of cooling and optional heating components; and

(C) is intended for exterior mounting on, adjacent interior to, or through an outside wall;

(2) is powered by a single- or three-phase current;

(3) may contain one or more separate indoor grilles, outdoor louvers, various ventilation options, indoor free air discharges, ductwork, well plenum, or sleeves; and

(4) has heating components that may include electrical resistance, steam, hot water, or gas, but may not include reverse cycle refrigeration as a heating means.

"Single package vertical heat pump" means a single package vertical air conditioner that:

(1) uses reverse cycle refrigeration as its primary heat source; and

(2) may include secondary supplemental heating by means of electrical resistance, steam, hot water, or gas.

"Small commercial package air-conditioning and heating equipment" means federally regulated commercial package air-conditioning and heating equipment that is rated below 135,000 Btu per hour (cooling capacity).

"Small duct, high velocity system" (SDHV) means a split system for which all indoor units are blower coil indoor units that produce at least 1.2 inches (of water column) of external static pressure when operated at the full-load air volume rate certified by the manufacturer of at least 220-scfm per rated ton of cooling.

"Space constrained product" means a central air conditioner or heat pump:

(1) that has rated cooling capacities no greater than 30,000 BTU/hr;

(2) that has an outdoor or indoor unit having at least two overall exterior dimensions or an overall displacement that:

(A) are (is) substantially smaller than those of other units that are:

1. currently installed in site-built single family homes, and

2. of a similar cooling, and, if a heat pump, heating, capacity, and

(B) if increased, would certainly result in a considerable increase in the usual cost of installation or would certainly result in a significant loss in the utility of the product to the consumer; and

(3) of a product type that was available for purchase in the United States as of December 1, 2000.

“Split system” of a consumer product means any air conditioner or heat pump that has at least two separate assemblies that are connected with refrigerant piping when installed. One of these assemblies includes an indoor coil that exchanges heat with the indoor air to provide heating or cooling, while one of the others includes an outdoor coil that exchanges heat with the outdoor air. Split systems may be either blower coil systems or coil-only systems.

“Split system” of commercial and industrial equipment means any central air conditioner or central air conditioning heat pump in which one or more of the major assemblies are separate from the others.

“Standard motor” in a central air conditioner or a central air-conditioning heat pump means a motor that is not a premium motor.

“Standard size” means a packaged terminal air conditioner or packaged terminal heat pump with wall sleeve dimensions having an external wall opening of greater than or equal to 16 inches high or greater than or equal to 42 inches wide, and a cross-sectional area greater than or equal to 670 square inches.

“Thermostatic expansion valve (TXV)” means a refrigerant metering valve, installed in an air conditioner or heat pump, which controls the flow of liquid refrigerant entering the evaporator in response to the super heat of the gas leaving it.

“Through-the-wall central air conditioner” means a central air conditioner that is designed to be installed totally or partially within a fixed-size opening in an exterior wall, and:

(1) is not weatherized;

(2) is clearly and permanently marked for installation only through an exterior wall;

(3) has a rated cooling capacity no greater than 30,000 Btu/hr;

(4) exchanges all of its outdoor air across a single surface of the equipment cabinet; and

(5) has a combined outdoor air exchange area of less than 800 square inches (split systems) or less than 1,210 square inches (single packaged systems) as measured on the surface described in paragraph (4) of this definition.

“Through-the-wall central air conditioning heat pump” means a heat pump that is designed to be installed totally or partially within a fixed-size opening in an exterior wall, and:

(1) is not weatherized;

(2) is clearly and permanently marked for installation only through an exterior wall;

(3) has a rated cooling capacity no greater than 30,000 Btu/hr;

(4) exchanges all of its outdoor air across a single surface of the equipment cabinet; and

(5) has a combined outdoor air exchange area of less than 800 square inches (split systems) or less than 1,210 square inches (single packaged systems) as measured on the surface described in paragraph (4) of this definition.

"Unitary air conditioner" means a central air conditioner consisting of one or more factory-made assemblies that include an evaporator or cooling coil and an electrically-driven compressor and condenser combination.

"Unitary heat pump" means a central air conditioning heat pump that consists of one or more factory-made assemblies, including an indoor conditioning coil, a compressor, and an outdoor coil, that provides a heating function, and that may provide a cooling function.

"Variable refrigerant flow (VRF) multi-split air conditioner" means a unit of commercial package air-conditioning and heating equipment that is configured as a split system air conditioner incorporating a single refrigerant circuit, with one or more outdoor units, at least one variable speed compressor or an alternate compressor combination for varying the capacity of the system by three or more steps, and multiple indoor fan coil units, each of which is individually metered and individually controlled by an integral control device and common communications network and which can operate independently in response to multiple indoor thermostats. Variable refrigerant flow implies three or more steps of capacity control on common, inter-connecting piping.

"Variable refrigerant flow (VRF) multi-split heat pump" means a unit of commercial package air-conditioning and heating equipment that is configured as a split system heat pump that uses reverse cycle refrigeration as its primary heating source and which may include secondary supplemental heating by means of electrical resistance, steam, hot water, or gas. The equipment incorporates a single refrigerant circuit, with one or more outdoor units, at least one variable-speed compressor or an alternate compressor combination for varying the capacity of the system by three or more steps, and multiple indoor fan coil units, each of which is individually metered and individually controlled by a control device and common communications network and which can operate independently in response to multiple indoor thermostats. Variable refrigerant flow implies three or more steps of capacity control on common, inter-connecting piping.

"Variable refrigerant flow (VRF) system" that is a federally regulated consumer product means a multi-split system with at least three compressor capacity stages, distributing refrigerant through a piping network to multiple indoor blower coil units each capable of individual zone temperature control, through proprietary zone temperature control devices and a common communications network. Note: Single-phase VRF systems less than 65,000 Btu/h are central air conditioners and central air conditioning heat pumps.

"Very large commercial package air-conditioning and heating equipment" means commercial package air-conditioning and heating equipment that is rated:

(1) at or above 240,000 Btu per hour; and

(2) below 760,000 Btu per hour (cooling capacity).

"Water-cooled air conditioner" means an air conditioner whose refrigerating system has a water-cooled condenser.

“Water-source heat pump” means a single-phase or three-phase reverse-cycle heat pump that uses a circulating water loop as the heat source for heating and as the heat sink for cooling. The main components are a compressor, refrigerant-to-water heat exchanger, refrigerant-to-air heat exchanger, refrigerant expansion devices, refrigerant reversing valve, and indoor fan. Such equipment includes, but is not limited to, water-to-air water-loop heat pumps.

“Year-round air conditioner” means an appliance that contains an air conditioner and a furnace in the same cabinet.

(d) Portable Air Conditioners, Evaporative Coolers, Ceiling Fans, Ceiling Fan Light Kits, Whole House Fans, Residential Exhaust Fans, Dehumidifiers, and Residential Furnace Fans.

“Airflow” of ceiling fans means the rate of air movement at a specific fan-speed setting expressed in cfm.

“Basic model” of a federally regulated residential furnace fan, as defined in 10 C.F.R. section 430.2, means all units of a given type of residential furnace fan (or class thereof) manufactured by one manufacturer, having the same primary energy source, and which have essentially identical electrical, physical, and functional (or hydraulic) characteristics that affect energy consumption, energy efficiency, water consumption, or water efficiency; and that are marketed and/or designed to be installed in the same type of installation.

“Belt-driven ceiling fan” means a ceiling fan with a series of one or more fan heads, each driven by a belt connected to one or more motors that are located outside of the fan head.

“Blade span” means the diameter of the largest circle swept by any part of the fan blade assembly, including any blade attachments.

“Ceiling fan” means a nonportable device that is suspended from a ceiling for circulating air via the rotation of fan blades.

“Ceiling fan efficiency” means the ratio of the total airflow to the total power consumption, in units of ft^3 per minute per watt (CFM/W).

“Ceiling fan light kit” means equipment designed to provide light from a ceiling fan that can be:

(1) integral, such that the equipment is attached to the ceiling fan prior to the time of retail sale; or

(2) attachable, such that at the time of retail sale the equipment is not physically attached to the ceiling fan, but may be included inside the ceiling fan at the time of sale or sold separately for subsequent attachment to the fan.

“Centrifugal ceiling fan” means a ceiling fan for which the primary airflow direction is in the same plane as the rotation of the fan blades.

“Combined energy efficiency ratio” is the energy efficiency of a portable air conditioner in Btu per watt-hours (Btu/Wh).

“Cooling efficiency ratio (CER)” means the efficiency of a spot air conditioner obtained by dividing the sum of the cooling capacity and the fan electrical input, both in Btu per hour by the total electrical input in watts, all as determined using the test method specified in Section 1604(d).

“Dehumidifier” means a product, other than a portable air conditioner, room air conditioner, or packaged terminal air conditioner, that is a self-contained, electrically operated, and mechanically encased assembly consisting of:

(1) a refrigerated surface (evaporator) that condenses moisture from the atmosphere;

(2) a refrigerating system, including an electric motor;

(3) an air-circulating fan; and

(4) a means for collecting or disposing of the condensate.

“Direct evaporative cooler” means a heat and mass transfer device used to adiabatically cool air passing through the device by the process of evaporating water directly exposed to this air.

“Dual-duct portable air conditioner” means a portable air conditioner that draws some or all of the condenser inlet air from outside the conditioned space through a duct attached to an adjustable window bracket, may draw additional condenser inlet air from the conditioned space, and discharges the condenser outlet air outside the conditioned space by means of a separate duct attached to an adjustable window bracket.

“Energy factor for dehumidifiers” means a measure of energy efficiency of a dehumidifier calculated by dividing the water removed from the air by the energy consumed, measured in liters per kWh (l/kWh).

“Evaporative cooler” means an appliance that cools indoor air directly or indirectly by evaporation of water. “Evaporative Cooler” does not include portable or spot evaporative coolers.

“Evaporative cooler efficiency ratio (ECER)” means a measure of the cooling efficiency defined in Table D-3 of section 1604(d) of this Article.

“Furnace fan” means an electrically powered device used in a consumer product for the purpose of circulating air through ductwork.

“High speed” of a ceiling fan means the highest available ceiling fan speed, *i.e.,* the fan speed corresponding to the maximum blade revolutions per minute (RPM).

“High-speed small-diameter (HSSD) ceiling fan” means a small-diameter ceiling fan that is not a very-small-diameter ceiling fan, highly decorative ceiling fan or belt-driven ceiling fan and that has a blade thickness of less than 3.2 mm at the edge or a maximum tip speed greater than the applicable limit specified in Table D-1.

Table D-1
High-Speed Small-Diameter Ceiling Fan Blade and Tip Speed Criteria

Airflow Direction	***Thickness (t) of Edges of Blades***		***Tip Speed Threshold***	
	Mm	***Inch***	***m/s***	***Feet per minute***
Downward only	4.8 > t ≥ 3.2	$^{3}/_{16}$ > t ≥ ⅛	16.3	3,200
Downward only	t ≥ 4.8	t ≥ $^{3}/_{16}$	20.3	4,000
Reversible	4.8 > t ≥ 3.2	3/16 > t ≥ ⅛	12.2	2,400
Reversible	t ≥ 4.8	t ≥ $^{3}/_{16}$	16.3	3,200

"Highly decorative ceiling fan" means a ceiling fan with a maximum rotational speed of 90 RPM and less than 1,840 CFM airflow at high speed, as determined by sections 3 and 4 of 10 C.F.R. section 430.23(w) (Appendix U to Subpart B of part 430).

"Hugger ceiling fan" means a low-speed small-diameter ceiling fan that is not a very-small-diameter ceiling fan, highly decorative ceiling fan or belt-driven ceiling fan; for which the lowest point on the fan blades is less than or equal to 10 inches from the ceiling.

"Indirect evaporative cooler" means a heat and mass transfer device used to sensibly cool a primary airstream, without addition of moisture, by means of an evaporatively cooled secondary airstream.

"Input power" of a ceiling fan light kit means the actual total power used by all lamp(s) and ballast(s) of the ceiling fan light kit during operation, expressed in watts and measured using the lamp and ballast packaged with the kit.

"Lamp ballast platform" of a ceiling fan light kit means a pairing of one ballast with one or more lamps that can operate simultaneously on that ballast. A unique platform is defined by the manufacturer and model number of the ballast and lamp(s) and the quantity of lamps that operate on the ballast.

"Lamp lumens" of a ceiling fan light kit means a measurement of luminous flux expressed in lumens and measured using the lamp and ballast shipped with the fixture.

"Large-diameter ceiling fan" means a ceiling fan that is greater than seven feet in diameter.

"Low-profile ceiling fan" means a ceiling fan where the motor mounts directly to the ceiling and that cannot be mounted using a down-rod.

"Low speed" of a ceiling fan means the lowest available ceiling fan speed, i.e., the fan speed corresponding to the minimum, non-zero, blade RPM.

"Low-speed small-diameter (LSSD) ceiling fan" means a small-diameter ceiling fan that has a blade thickness greater than or equal to 3.2 mm at the edge and a maximum tip speed less than or equal to the applicable limit specified in Table D-2.

Table D-2
Low-Speed Small-Diameter Ceiling Fan Blade and Tip Speed Criteria

Airflow Direction	***Thickness (t) of Edges of Blades***		***Tip speed threshold***	
	Mm	***Inch***	***m/s***	***Feet per minute***
Reversible	4.8 > t ≥ 3.2	$^{3}/_{16}$ > t ≥ ⅛	12.2	2,400
Reversible	t ≥ 4.8	t ≥ $^{3}/_{16}$	16.3	3,200

"Multi-head ceiling fan" means a ceiling fan with more than one fan head, i.e., more than one set of rotating fan blades.

"Multi-mount ceiling fan" means a low-speed small-diameter ceiling fan that can be mounted in the configurations associated with both the standard and hugger ceiling fans.

"Oscillating ceiling fan" means a ceiling fan containing one or more fan heads for which the axis of rotation of the fan blades cannot remain in a fixed position relative to the ceiling. Such fans have no inherent means by which to disable the oscillating function separate from the fan blade rotation.

"Packaged direct evaporative cooler" means a direct evaporative cooler with an air-moving device that includes the entire water distribution, collection, and recirculation system with pump and piping. "Packaged direct evaporative cooler" does not include portable or spot evaporative coolers.

"Packaged indirect evaporative cooler" means an indirect evaporative cooler with integrated or nonintegrated primary and secondary air passages and provided with both primary and secondary air-moving devices. This device also includes the entire water distribution, collection, and recirculation system with pump and piping.

"Packaged indirect/direct evaporative cooler" means a product incorporating both an indirect evaporative cooler and a direct evaporative cooler, and including the entire water distribution, collection, and recirculation system with pump and piping.

"Portable air conditioner" means a portable encased assembly, other than a "packaged terminal air conditioner," "room air conditioner," or "dehumidifier," that delivers cooled, conditioned air to an enclosed space, and is powered by single-phase electric current. It includes a source of refrigeration and may include additional means for air circulation and heating. A portable air conditioner is typically mounted on wheels for moving from place to place within a building or structure.

"Portable dehumidifier" means a dehumidifier designed to operate within the dehumidified space without the attachment of additional ducting, although means may be provided for optional duct attachment.

"Portable or Spot Evaporative Cooler" means an evaporative cooler that is non-ducted, not designed for permanent installation, and can be plugged into a standard mains outlet.

"Product capacity for dehumidifiers" means a measure of the ability of a dehumidifier to remove moisture from its surrounding atmosphere, measured in pints collected per 24 hours of continuous operation.

“Residential exhaust fan” means a permanently installed bathroom, kitchen, or utility room ceiling or wall-mounted exhaust fan. “Residential exhaust fan” does not include the exhaust fans included in microwave/oven hood combination units.

“Seasonally adjusted cooling capacity” means the amount of cooling, measured in Btu/h, provided to the indoor conditioned space, measured under the specified ambient conditions.

“Single-duct portable air conditioner” means a portable air conditioner that draws all of the condenser inlet air from the conditioned space without the means of a duct, and discharges the condenser outlet air outside the conditioned space through a single duct attached to an adjustable window bracket.

“Small-diameter ceiling fan” means a ceiling fan that is less than or equal to seven feet in diameter.

“Spot air conditioner” means an air conditioner that discharges cool air into a space and discharges rejected heat back into that space, where there is no physical boundary separating the discharges. Spot air conditioners are considered a subset of portable air conditioners.

“Standard ceiling fan” means a low-speed small-diameter ceiling fan that is not a very-small-diameter ceiling fan, highly decorative ceiling fan or belt-driven ceiling fan; for which the lowest point on fan blades is greater than 10 inches from the ceiling.

“System efficacy per lamp ballast platform” of a ceiling fan light kit means the ratio of measured lamp lumens expressed in lumens and measured input power expressed in watts.

“Total airflow” of a ceiling fan means the sum of the product of airflow and hours of operation at all tested speeds. For multi-head fans, this includes the airflow from all fan heads.

“Very small-diameter (VSD) ceiling fan” means a small-diameter ceiling fan that is not a highly decorative ceiling fan or belt-driven ceiling fan; and has one or more fan heads, each of which has a blade span of 18 inches or less.

“Whole-home dehumidifier” means a dehumidifier designed to be installed with ducting to deliver return process air to its inlet and to supply dehumidified process air from its outlet to one or more locations in the dehumidified space.

“Whole house fan” means an exhaust fan that is mounted in the ceiling of a residence that is capable of moving 1,000 cfm or more, and that provides cooling or fresh air.

(e) Gas and Oil Space Heaters and Electric Residential Boilers.

“Annual fuel utilization efficiency (AFUE)” means the efficiency descriptor for furnaces and boilers, as determined using the applicable test method in section 1604(e) of this Article and based on the assumption that all:

(1) weatherized warm air furnaces or boilers are located out-of-doors;

(2) warm air furnaces which are not weatherized are located indoors and all combustion and ventilation air is admitted through grill or ducts from the outdoors and does not communicate with air in the conditioned space;

(3) boilers which are not weatherized are located within the heated space.

“Automatic flue damper” means a device installed in the flue outlet or in the inlet of or upstream of the draft control device of an individual, automatically operated, fossil fuel-fired appliance that is designed to automatically open the flue outlet during appliance operation and to automatically close the flue outlet when the appliance is in a standby condition.

“Automatic vent damper” means a device intended for installation in the venting system of an individual, automatically operated, fossil fuel-fired appliance either in the outlet or downstream of the appliance draft control device, which is designed to automatically open the venting system when the appliance is in operation and to automatically close off the venting system when the appliance is in a standby or shutdown condition.

“Basic model” of federally regulated commercial packaged boilers means all commercial packaged boilers manufactured by one manufacturer within a single equipment class having the same primary energy source (e.g., gas or oil) and that have essentially identical electrical, physical, and functional characteristics that affect energy efficiency.

“Basic model” of federally regulated commercial warm air furnaces means all commercial warm air furnaces manufactured by one manufacturer within a single equipment class, that have the same nominal input rating and the same primary energy source (e.g. gas or oil) and that do not have any differing physical or functional characteristics that affect energy efficiency.

“Boiler” means a space heater that is a self-contained appliance for supplying steam or hot water primarily intended for space-heating. “Boiler” does not include hot water supply boilers.

“Central furnace” means a self-contained space heater designed to supply heated air through ducts of more than 10 inches length.

“Combination space-heating and water-heating appliance” means an appliance that is designed to provide both space heating and water heating from a single primary energy source.

“Combined annual efficiency (CAE)” means [(SHF x $Effy_{hs}$ /100) + (WHF x $Effy_{ss}$ /100) + (R x NHF x EF)] divided by [SHF + WHF + (R x NHF)] as defined in the applicable test method in section 1604(e)(3) of this Article.

“Combustion efficiency of a space heater” means a measure of the percentage of heat from the combustion of gas or oil that is transferred to the space being heated or lost as jacket loss, as determined using the applicable test method in section 1604(e) of this Article.

“Combustion efficiency for a commercial packaged boiler” means the efficiency descriptor for packaged boilers, determined using test procedures prescribed under 10 C.F.R. section 431.86 and is equal to 100 percent minus percent flue loss (percent flue loss is based on input fuel energy).

“Commercial packaged boiler” means a type of packaged low pressure boiler that is industrial equipment with a capacity (rated maximum input) of 300,000 Btu per hour (Btu/hr) or more which, to any significant extent, is distributed in commerce:

(1) For heating or space conditioning applications in buildings; or

(2) For service water heating in buildings but does not meet the definition of ‘‘hot water supply boiler’’ in this part.

“Condensing boiler” means a commercial packaged boiler that condenses part of the water vapor in the flue gases, and that includes a means of collecting and draining this condensate from its heat exchanger section.

“Direct vent system” means a system supplied by a manufacturer which provides outdoor air or air from an unheated space (such as an attic or crawl space) directly to a furnace or vented heater for combustion and for draft relief if the unit is equipped with a draft control device.

“Duct furnace” means a space heater designed to be installed within a duct.

“Energy consumption during standby” means the energy consumed by a gas or oil space heater when the main burner is not operating, not including energy consumption related to associated cooling equipment, and reported in watts, based on a conversion factor of 3.412 Btu per watt-hour.

“Fan type gas space heater” means a space heater in which heat is distributed to the surrounding area through the use of an electric fan.

“Floor furnace” means a self-contained, floor-mounted space heater without ducts.

“Floor-mounted unit heater” means a unit heater designed for mounting on the floor rather than suspension mounting.

“Gravity type gas space heater” means a gas space heater in which heat is distributed to the surrounding area as a result of the differences in densities of cooler and warmer air in the surrounding atmosphere.

“High intensity infrared heater” means an infrared gas space heater that has a radiating surface that operates at or above 1,350°F.

“High static unit heater” means a unit heater that has an integral means for the circulation of air against 0.2 inch or greater static pressure.

“Indoor duct furnace” means a duct furnace designed to operate under sheltered conditions.

“Infrared gas space heater” means a gas space heater that directs a substantial amount of its energy output in the form of infrared energy into the area to be heated.

“Low intensity infrared heater” means an infrared gas space heater that has a radiating surface that operates at less than 1,350°F.

“Low static unit heater” means a unit heater that has an integral means for the circulation of air against less than 0.2 inch static pressure.

“Mobile home furnace” means a direct vent furnace that is designed for use only in mobile homes.

“Non-packaged boiler” means a boiler that is not a packaged boiler.

“Outdoor duct furnace” means a duct furnace designed to function normally under varying outdoor weather conditions.

“Outdoor furnace or boiler” means a furnace or boiler normally intended for installation out-of-doors or in an unheated space (such as an attic or crawl space).

“Output” means the rate of useful heat output when operating under steady state conditions.

“Packaged boiler” means a boiler that is shipped complete with heating equipment, mechanical draft equipment, and automatic controls, usually shipped in one or more sections and does not include a boiler that is custom designed and field constructed. If the boiler is shipped in more than one section, the sections may be produced by more than one manufacturer, and may be originated or shipped at different times and from more than one location.

“Packaged high pressure boiler” means a packaged boiler that is:

(1) A steam boiler designed to operate at a steam pressure higher than 15 psi gauge (psig);

(2) A hot water boiler designed to operate at a water pressure above 160 psig or at a water temperature exceeding 250°F, or both; or

(3) A boiler that is designed to be capable of supplying either steam or hot water, and designed to operate under the conditions in paragraphs (1) and (2) of this definition.

“Packaged low pressure boiler” means a packaged boiler that is:

(1) A steam boiler designed to operate at or below a steam pressure of 15 psig;

(2) A hot water boiler designed to operate at or below a water pressure of 160 psig and a temperature of 250°F; or

(3) A boiler that is designed to be capable of supplying either steam or hot water, and designed to operate under the conditions in paragraphs (1) and (2) of this definition.

“Patio heater” means an infrared gas space heater that is designed for warming outdoor areas using radiant heat.

“Portable infrared heater” means a free-standing infrared gas space heater designed with the intent of being moved from one space to another.

“Power venting” means a venting system that uses a separate fan, either integral to the appliance or attached to the vent pipe, products of combustion.

“Premium motor” means a premium motor as defined in NEMA Premium™: Product Scope and Nominal Efficiency Levels (2001).

“Radiant coefficient” means a measure of efficiency of an infrared gas space heater, as determined using the applicable test method in section 1604(e) of this Article.

“Radiant tube-type infrared heater” means a low-intensity infrared gas space heater in which combustion takes place within a tube.

“Room heater” means a free-standing non-recessed space heater.

“Space heater” means an appliance that supplies heat to a space for the purpose of providing warmth to objects within the space. “Space heater” includes but is not limited to boilers (except hot water supply boilers), furnaces, room heaters, floor furnaces, wall furnaces, infrared heaters, unit heaters, duct furnaces, and combination space-heating and water-heating appliances.

“Standard motor” of a central gas furnace means a motor that is not a premium motor.

“Standby loss” of a boiler means the sum of the gas used by the pilot (converted to watts), the electricity used by controls, and any other energy used while the boiler is not operating.

“Steam boiler” means a boiler that supplies steam.

“Thermal efficiency” of a space heater means a measure of the percentage of heat from the combustion of gas or oil that is transferred to the space being heated, or in the case of a boiler, to the hot water or steam, as determined using the applicable test methods in section 1604(e) of this Article. Thermal efficiency of a commercial warm air furnace equals 100 percent minus percent flue loss, as determined using test procedures prescribed under 10 C.F.R. section 431.76.

“Unit heater” means a self-contained, automatically- controlled, vented fan-type gas space heater designed to be installed without ducts, within the heated space.

“Unvented gas space heater” means a gas space heater designed to be used without a vent.

“Unvented oil space heater” means an oil space heater designed to be used without a vent.

Note: See Health and Safety Code section 19881 for restrictions on the sale of unvented gas space heaters and unvented oil space heaters.

“Vented floor furnace” means a self-contained vented heater suspended from the floor of the space being heated, taking air for combustion from outside this space. The vented floor furnace supplies heated air circulated by gravity or by a fan directly into the space to be heated through openings in the casing.

“Vented gas space heater” means a gas space heater designed to be used with a vent.

“Vented home heating equipment” or “vented heater” means a class of home heating equipment, not including furnaces, designed to furnish warmed air to the living space of a residence, directly from the device, without duct connections (except that boots not to exceed 10 inches beyond the casing may be permitted and includes: vented wall furnace, vented floor furnace, and vented room heater.

“Vented oil space heater” means an oil space heater designed to be used with a vent.

“Vented room heater” means a self-contained, free standing, non-recessed, vented heater for furnishing warmed air to the space in which it is installed. The vented room heater supplies heated air circulated by gravity or by a fan directly into the space to be heated through openings in the casing.

“Vented wall furnace” means a self-contained vented heater complete with grilles or the equivalent, designed for incorporation in, or permanent attachment to, a wall of a residence and furnishing heated air circulated by gravity or by a fan directly into the space to be heated through openings in the casing.

“Wall furnace” means a wall-mounted, self-contained space heater without ducts that exceed 10 inches.

“Water boiler” means a boiler that supplies hot water.

(f) Water Heaters.

“Activation lock” means a control mechanism (either by a physical device directly on the water heater or a control system integrated into the water heater) that is locked by default and contains a physical, software, or digital communication that must be activated with an activation key to enable to the product to operate at its designed specifications and capabilities and without which the activation of the product will provide not greater than 50 percent of the rated first hour delivery of hot water certified by the manufacturer.

“Air-source commercial heat pump water heater” means a commercial heat pump water heater that utilizes indoor or outdoor air as the heat source.

“Basic model” of federally regulated water heaters, hot water supply boilers, or unfired hot water storage tanks that are commercial and industrial equipment means all water heaters, hot water supply boilers, or unfired hot water storage tanks manufactured by one manufacturer within a single equipment class, having the same primary energy source (e.g., gas or oil) and that have essentially identical electrical, physical and functional characteristics that affect energy efficiency.

“Booster water heater” means a water heater that raises the temperature of the preheated water supplied to the unit typically from 110°F-140°F to 180°F-195°F.

“Commercial heat pump water heater (CHPWH)” means a water heater (including all ancillary equipment such as fans, blowers, pumps, storage tanks, piping, and controls, as applicable) that uses a refrigeration cycle, such as vapor compression, to transfer heat from a low-temperature source to a higher-temperature sink for the purpose of heating potable water, and has a rated electric power input greater than 12 kW. Such equipment includes, but is not limited to, air-source heat pump water heaters, water-source heat pump water heaters, and direct geo-exchange heat pump water heaters.

“Direct geo-exchange commercial heat pump water heater” means a commercial heat pump water heater that utilizes the earth as a heat source and allows for direct exchange of heat between the earth and the refrigerant in the evaporator coils.

“Electric instantaneous water heater” that is a federally regulated consumer product means a water heater that uses electricity as the energy source, has a nameplate input rating of 12 kW or less, and contains no more than one gallon of water per 4,000 Btu per hour of input.

“Electric instantaneous water heater” that is federally regulated commercial and industrial equipment means a water heater that uses electricity as the energy source, and has a rated input both greater than 12 kW and not less than 4,000 Btu/h per gallon of stored water.

“Electric storage water heater” that is a federally regulated consumer product means a water heater that uses electricity as the energy source, has a nameplate input rating of 12 kW or less, and contains more than one gallon of water per 4,000 Btu per hour of input.

“Electric storage water heater” that is federally regulated commercial and industrial equipment means a water heater that uses electricity to heat and store water within the appliance at a thermostatically controlled temperature for delivery on demand, and has a rated input both greater than 12 kW and less than 4,000 Btu/hour per gallon of stored water.

“First-hour rating” means an estimate of the maximum volume of “hot” water that a storage-type water heater can supply within an hour that begins with the water heater fully heated (i.e., with all thermostats satisfied). It is a function of both the storage volume and the recovery rate.

“Flow-activated instantaneous water heater” means an instantaneous water heater or hot water supply boiler that activates the burner or heating element only if heated water is drawn from the unit.

“Gas-fired instantaneous water heater” that is a federally regulated consumer product means a water heater that uses gas as the main energy source, has a nameplate input rating less than 200,000 Btu/h, and contains no more than one gallon of water per 4,000 Btu per hour of input.

Gas-fired instantaneous water heater” that is federally regulated commercial and industrial equipment means a water heater that uses gas as the main energy source, and has a rated input both greater than 200,000 Btu/h and not less than 4,000 Btu/h per gallon of stored water.

“Gas-fired storage water heater” that is a federally regulated consumer product means a water heater that uses gas as the main energy source, has a nameplate input rating of 75,000 Btu/h or less, and contains more than one gallon of water per 4,000 Btu per hour of input.

“Gas-fired storage water heater” that is federally regulated commercial and industrial equipment means a water heater that uses gas to heat and store water within the appliance at a thermostatically controlled temperature for delivery on demand, and has a rated input both greater than 75,000 Btu/hour and less than 4,000 Btu/hour per gallon of stored water.

“Grid-enabled water heater” means an electric resistance water heater that:

(1) has a rated storage tank volume of more than 75 gallons;

(2) is manufactured on or after April 16, 2015;

(3) is equipped at the point of manufacture with an activation lock and;

(4) bears a permanent label applied by the manufacturer that:

(A) is made of material not adversely affected by water;

(B) is attached by means of non-water-soluble adhesive; and

(C) advises purchasers and end-users of the intended and appropriate use of the product with the following notice printed in 16.5 point Arial Narrow Bold font: “IMPORTANT INFORMATION: This water heater is intended only for use as part of an electric thermal storage or demand response program. It will not provide adequate hot water unless enrolled in such a program and activated by your utility company or another program operator. Confirm the availability of a program in your local area before purchasing or installing this product.”

“Ground-source closed-loop commercial heat pump water heater” means a commercial heat pump water heater that utilizes a fluid circulated through a closed piping loop as a medium to transfer heat from the ground to the refrigerant in the evaporator. The piping loop may be buried inside the ground in horizontal trenches or vertical bores, or submerged in a surface water body.

“Ground water-source commercial heat pump water heater” means a commercial heat pump water heater that utilizes ground water as the heat source.

“Heat trap” means a device which can be integrally connected or independently attached to the hot and/or cold water pipe connections of a water heater such that the device will develop a thermal or mechanical seal to minimize the recirculation of water due to thermal convection between the water heater tank and its connecting pipes.

“Hot water dispenser” means a small electric water heater that has a measured storage volume no greater than 1.0 gallon.

“Hot water supply boiler” means a packaged boiler that is industrial equipment and that:

(1) has an input rating from 300,000 Btu/hour to 12,500,000 Btu/hour and of at least 4,000 Btu/hour per gallon of stored water;

(2) is suitable for heating potable water; and

(3) meets either or both of the following conditions:

(A) it has the temperature and pressure controls necessary for heating potable water for purposes other than space heating; or

(B) the manufacturer's product literature, product markings, product marketing, or product installation and operation instructions indicate that the boilers intended uses include heating potable water for purposes other than space heating.

“Immersed heating element” means an electrically powered heating device which is designed to operate while totally immersed in water in such a manner that the heat generated by the device is imparted directly to the water.

“Indoor water-source commercial heat pump water heater” means a commercial heat pump water heater that utilizes indoor water as the heat source.

“Input” means rate of energy consumption.

“Instantaneous water heater” that is federally regulated commercial and industrial equipment means a water heater that uses gas, oil, or electricity, including:

(1) gas-fired instantaneous water heaters with a rated input both greater than 200,000 Btu/h and not less than 4,000 Btu/h per gallon of stored water;

(2) oil-fired instantaneous water heaters with a rated input both greater than 210,000 Btu/h and not less than 4,000 Btu/h per gallon of stored water; and

(3) electric instantaneous water heaters with a rated input both greater than 12 kW and not less than 4,000 Btu/h per gallon of stored water.

"Maximum gpm (L/min) rating" means the maximum gallons per minute (liters per minute) of hot water that can be supplied by an instantaneous water heater while maintaining a nominal temperature rise of 67°F (37.3°C) during steady state operation.

"Mini-tank electric water heater" means a small electric water heater that has a measured storage volume more than 1.0 gallon and a rated storage volume less than 20 gallons.

"Oil-fired instantaneous water heater" that is a federally regulated consumer product means a water heater that uses oil as the main energy source, has a nameplate input rating of 210,000 Btu/h or less, and contains no more than one gallon of water per 4,000 Btu per hour of input.

"Oil-fired instantaneous water heater" that is federally regulated commercial and industrial equipment means a water heater that uses oil as the main energy source, and has a rated input both greater than 210,000 Btu/h and not less than 4,000 Btu/h per gallon of stored water.

"Oil-fired storage water heater" that is a federally regulated consumer product means a water heater that uses oil as the main energy source, has a nameplate input rating of 105,000 Btu/h or less, and contains more than one gallon of water per 4,000 Btu per hour of input.

"Oil-fired storage water heater" that is federally regulated commercial and industrial equipment means a water heater that uses oil to heat and store water within the appliance at a thermostatically controlled temperature for delivery on demand, and has a rated input both greater than 105,000 Btu/hour and less than 4,000 Btu/hour per gallon of stored water.

"R-value" means the thermal resistance of insulating material as determined using ASTM C177-13 or C518-15 and expressed in ($°F \cdot ft^2 \cdot h/Btu$).

"Rated storage volume" means the water storage capacity of a water heater, in gallons (liters), as certified by the manufacturer.

"Recovery efficiency" of a water heater means the ratio of energy delivered to the water to the energy content of the fuel consumed by the water heater, as determined using the applicable test method in section 1604(f) of this Article.

"Residential-duty commercial water heater" means any gas-fired storage, oil-fired storage, or electric instantaneous commercial water heater that meets the following conditions:

(1) for models requiring electricity, uses single-phase external power supply;

(2) is not designed to provide outlet hot water at temperatures greater than 180 °F; and

(3) does not meet any of the following criteria:

Table F-1
Water Heater Non-Residential Application Exclusions

Water Heater Type	***Indicator of non-residential application***
Gas-fired storage	Rated input > 105 kBTU/hour; rated storage volume > 120 gallons
Oil-fired storage	Rated input > 140 kBTU/hour; rated storage volume > 120 gallons
Electric Instantaneous	Rated input > 58.6 kW; rated storage volume > 2 gallons

"Storage-type instantaneous water heater" that is regulated under 10 C.F.R. part 431 means an instantaneous water heater that includes a storage tank with a storage volume greater than or equal to 10 gallons.

"Storage water heater" means a water heater that is regulated under 10 C.F.R. part 431 and that uses gas, oil, or electricity to heat and store water within the appliance at a thermostatically controlled temperature for delivery on demand, including:

(1) gas-fired storage water heaters with a rated input both greater than 75,000 Btu/hour and less than 4,000 Btu/hour per gallon of stored water;

(2) oil-fired storage water heaters with a rated input both greater than 105,000 Btu/hour and less than 4,000 Btu/hour per gallon of stored water; and

(3) electric storage water heaters with a rated input both greater than 12 kW and less than 4,000 Btu/hour per gallon of stored water.

"Thermal efficiency" of an instantaneous water heater, a storage water heater, or a hot water supply boiler means the ratio of the heat transferred to the water flowing through the water heater to the amount of energy consumed by the water heater as measured during the thermal efficiency test procedure prescribed in the applicable test method in section 1604(f) of this Article.

"Uniform energy factor" of a water heater that is a federally regulated consumer product means the measure of water heater overall efficiency.

"Water heater" that is a federally regulated water heater as defined in 10 C.F.R. section 430.2 means a product which utilizes oil, gas, or electricity to heat potable water for use outside the heater upon demand, including:

(1) Storage type units which heat and store water at a thermostatically controlled temperature, including gas storage water heaters with an input of 75,000 Btu per hour or less, oil storage water heaters with an input of 105,000 Btu per hour or less, and electric storage water heaters with an input of 12 kilowatts or less;

(2) Instantaneous type units which heat water but contain no more than one gallon of water per 4,000 Btu per hour of input, including gas instantaneous water heaters with an input of 200,000 Btu per hour or less, oil instantaneous water heaters with an input of 210,000 Btu per hour or less, and electric instantaneous water heaters with an input of 12 kilowatts or less; and

(3) Heat pump type units, with a maximum current rating of 24 amperes at a voltage no greater than 250 volts, which are products designed to transfer thermal energy from one temperature level to a higher temperature level for the purpose of heating water, including all

ancillary equipment such as fans, storage tanks, pumps, or controls necessary for the device to perform its function.

(g) Pool Heaters, Portable Electric Spas, Pumps, Residential Pool Pump and Motor Combinations, and Replacement Residential Pool Pump Motors.

"Bare pump" means a pump excluding mechanical equipment, driver, and controls.

"Basic model" of a federally regulated pump means all units of a given class of pump manufactured by one manufacturer, having the same primary energy source, and having essentially identical electrical, physical, and functional (or hydraulic) characteristics that affect energy consumption, energy efficiency, water consumption, or water efficiency; except that:

(1) for RSV and ST pumps, all variations in numbers of stages of the bare pump must be considered a single basic model;

(2) pump models for which the bare pump differs in impeller diameter, or impeller trim, may be considered a single basic model; and

(3) pump models for which the bare pump differs in number of stages or impeller diameter and which are sold with motors (or motors and controls) of varying horsepower may only be considered a single basic model if:

(i) for ESCC, ESFM, IL, and RSV pumps, each motor offered in the basic model has a nominal full load motor efficiency rated at the federal minimum (see the current table for NEMA Design B motors at Table S-1 of this Article) or the same number of bands above the federal minimum for each respective motor horsepower (see Table 3 of Appendix A to subpart Y of 10 C.F.R. part 431); or

(ii) for ST pumps, each motor offered in the basic model has a full load motor efficiency at the default nominal full load submersible motor efficiency shown in Table 2 of Appendix A to subpart Y of 10 C.F.R. part 431 or the same number of bands above the default nominal full load submersible motor efficiency for each respective motor horsepower (see Table 3 of Appendix A to subpart Y of 10 C.F.R. part 431).

"Best efficiency point (BEP)" means the pump hydraulic power operating point (consisting of both flow and head conditions) that results in the maximum efficiency.

"Bowl diameter" means the maximum dimension of an imaginary straight line passing through and in the plane of the circular shape of the intermediate bowl of the bare pump that is perpendicular to the pump shaft and that intersects the outermost circular shape of the intermediate bowl of the bare pump at both of its ends, where the intermediate bowl is as defined in ANSI/HI 2.1-2.2-2014.

"Capacitor start-capacitor run" means a capacitor start single phase motor that has a capacitor in series with the starting winding.

"Capacitor start-induction run" means a motor that uses a capacitor via the starting winding to start an induction motor, where the capacitor is switched out by a centrifugal switch once the motor is up to speed.

“Clean water pump” means a pump that is designed for use in pumping water with a maximum non-absorbent free solid content of 0.016 pounds per ft^3, and with a maximum dissolved solid content of 3.1 pounds per ft^3, provided that the total gas content of the water does not exceed the saturation volume, and disregarding any additives necessary to prevent the water from freezing at a minimum of 14°F.

“Close-coupled pump” means a pump in which the motor shaft also serves as the impeller shaft for the bare pump.

“Coefficient of performance (COP)” of a heat pump pool heater means the ratio of heat output to the total power input in consistent units, as determined using the applicable test method in section 1604(g) of this Article.

“Combination spa” means a portable electric spa with two separate distinct reservoirs, where (1) one reservoir is an exercise spa; (2) the second reservoir is a standard spa; and (3) each reservoir has an independent water temperature setting control.

“Continuous control” means a control that adjusts the speed of the pump driver continuously over the driver operating speed range in response to incremental changes in the required pump flow, head, or power output.

“Control” means any device that can be used to operate the driver. Examples include, but are not limited to, continuous or non-continuous controls, schedule-based controls, on/off switches, and float switches.

“Default speed” means the low speed, having a rotation rate that is no more than one-half of the motor's maximum rotation rate.

“Driver” means the machine providing mechanical input to drive a bare pump directly or through the use of mechanical equipment. Examples include, but are not limited to, an electric motor, internal combustion engine, or gas/steam turbine.

“Dry rotor pump” means a pump in which the motor rotor is not immersed in the pumped fluid.

“Electric heat pump pool heater” means an appliance designed for heating nonpotable water and employing a compressor, water-cooled condenser, and outdoor air coil.

“Electric resistance pool heater” means an appliance designed for heating nonpotable water and employing electric resistance heating elements.

“Electronically commutated motor (ECM)” means a brushless DC motor that utilizes a permanent magnet rotor and built in inverters.

“End suction close-coupled (ESCC) pump” means a close-coupled, dry rotor, end suction pump that has a shaft input power greater than or equal to 1 hp and less than or equal to 200 hp at BEP and full impeller diameter and that is not a dedicated-purpose pool pump. Examples include, but are not limited to, pumps within the specified horsepower range that comply with ANSI/HI nomenclature OH7, as described in ANSI/HI 1.1-1.2-2014.

“End suction frame mounted/own bearings (ESFM) pump” means a mechanically coupled, dry rotor, end suction pump that has a shaft input power greater than or equal to 1 hp and less than or equal to 200 hp at BEP and full impeller diameter and that is not a dedicated-purpose pool pump. Examples include, but are not limited to, pumps within the specified horsepower range that comply with ANSI/HI nomenclature OH0 and OH1, as described in ANSI/HI 1.1-1.2-2014.

“End suction pump” means a single-stage, rotodynamic pump in which the liquid enters the bare pump in a direction parallel to the impeller shaft and on the side opposite the bare pump's driver-end. The liquid is discharged through a volute in a plane perpendicular to the shaft.

“Exercise spa” (also known as a “swim spa”) means a portable electric spa that includes specific features and equipment to produce water flow for water physical therapy or physical fitness activity, including, but not limited to, swimming in place.

“Exercise spa portion” means the reservoir of a combination spa that is an exercise spa.

“Fill volume” means the water capacity of the portable electric spa, in gallons, at the halfway point between the bottom of the skimmer opening and the top of the skimmer opening. In the absence of a skimmer, the fill volume is six inches below the overflow level of the spa as defined in the test method in section 1604(g)(2)(B)1.

“Fire pump” means a pump that is compliant with NFPA 20-2016 “Standard for the Installation of Stationary Pumps for Fire Protection,” and is either:

(1) UL listed under ANSI/UL 448-2013 “Standard for Safety Centrifugal Stationary Pumps for Fire-Protection Service,” or

(2) FM Global (FM) approved under the January 2015 edition of FM Class Number 1319, “Approval Standard for Centrifugal Fire Pumps (Horizontal, End Suction Type).”

“Fossil fuel-fired pool heater” means an appliance designed for heating nonpotable water and employing natural gas or oil burners.

“Full impeller diameter” means the maximum diameter impeller with which a given pump basic model is distributed in commerce.

“Horizontal motor” means a motor that requires the motor shaft to be in a horizontal position to function as designed, as specified in the manufacturer literature.

“Hybrid pool heater” means an appliance designed for heating nonpotable water and employing both a heat pump (compressor, water-cooled condenser, and outdoor air coil) and a fossil fueled burner as heating sources.

“Inflatable spa” means a portable electric spa where the structure is collapsible and is designed to be filled with air to form the body of the spa.

“In-line (IL) pump” means a pump that is either a twin-head pump or a single-stage, single-axis flow, dry rotor, rotodynamic pump that has a shaft input power greater than or equal to 1 hp and less than or equal to 200 hp at BEP and full impeller diameter, in which liquid is discharged through a volute in a plane perpendicular to the shaft. Such pumps do not include pumps that are mechanically coupled or close-coupled, have a pump power output that is less than or equal to 5 hp at BEP at full impeller diameter, and are distributed in commerce with a horizontal motor.

Examples of in-line pumps include, but are not limited to, pumps within the specified horsepower range that comply with ANSI/HI nomenclature OH3, OH4, or OH5, as described in ANSI/HI 1.1-1.2-2014.

"Magnet driven pump" means a pump in which the bare pump is isolated from the motor via a containment shell and torque is transmitted from the motor to the bare pump via magnetic force. The motor shaft is not physically coupled to the impeller or impeller shaft.

"Mechanical equipment" of a federally regulated pump means any component of a pump that transfers energy from the driver to the bare pump.

"Mechanically coupled pump" means a pump in which the bare pump has its own impeller shaft and bearings and so does not rely on the motor shaft to serve as the impeller shaft.

"Multi speed motor" means a motor whose speed may be selected from several different pre-set ranges.

"Nameplate HP" means the HP displayed on the nameplate mounted on the motor.

"Non-continuous control" means a control that adjusts the speed of a driver to one of a discrete number of non-continuous preset operating speeds, and does not respond to incremental reductions in the required pump flow, head, or power output.

"PEI_{CL}" means the constant load pump energy index of a pump tested using the applicable test method in section 1604(g)(4) of this Article.

"PEI_{VL}" means the variable load pump energy index of a pump tested using the applicable test method in section 1604(g)(4) of this Article.

"Permanent magnet synchronous" means a motor that has a permanent magnet rotor, and windings on the stator and is controlled by single-phase or multi-phase sinusoidal alternating current.

"Permanent split capacitor (PSC)" means a two-phase motor operated from a single-phase voltage source with a capacitor connected in series with either one of the two windings.

"Pool heater" means an appliance designed for heating non-potable water contained at atmospheric pressure, including heating water in swimming pools, spas, hot tubs, and similar applications.

"Pool pump motor capacity" means a-value equal to the product of motor's nameplate HP and service factor.

"Portable electric spa" means a factory-built electric spa or hot tub, supplied with equipment for heating and circulating water at the time of sale or sold separately for subsequent attachment.

"Prime-assist pump" means a pump that:

(1) Is designed to lift liquid that originates below the centerline of the pump inlet;

(2) Requires no manual intervention to prime or re-prime from a dry-start condition; and

(3) Includes a device, such as a vacuum pump or air compressor and venturi eductor, to remove air from the suction line in order to automatically perform the prime or re-prime function at any point during the pump's operating cycle.

“Pump” means equipment designed to move liquids (which may include entrained gases, free solids, and totally dissolved solids) by physical or mechanical action and includes a bare pump and, if included by the manufacturer at the time of sale, mechanical equipment, driver, and controls.

“Radially split, multi-stage, vertical, in-line diffuser casing (RSV) pump” means a vertically suspended, multi-stage, single axis flow, dry rotor, rotodynamic pump:

(1) that has a shaft input power greater than or equal to 1 hp and less than or equal to 200 hp at BEP and full impeller diameter and at the number of stages required for testing and

(2) in which liquid is discharged in a place perpendicular to the impeller shaft; and

(3) for which each stage (or bowl) consists of an impeller and diffuser;

(4) for which no external part of such a pump is designed to be submerged in the pumped liquid; and

(5) examples include, but are not limited to, pumps complying with ANSI/HI nomenclature VS8, as described in ANSI/HI 2.1-2.2-2014.

“Rated capacity” of a portable electric spa means the number of people capable of fitting in a portable electric spa as specified by the manufacturer.

“Rated voltage” of a portable electric spa means the voltage, in volts, as it appears on the nameplate of the spa.

“Rated volume” means the water capacity of a portable electric spa, in gallons, as specified by the manufacturer on the spa, on the spa packaging, or the spa marketing materials.

“Readily accessible on-off switch” of a pool heater means an on-off switch located in a place that can be easily used without the need for tools to remove any covering when the pool heater is on display in a store or when it is installed.

“Replacement residential pool pump motor” means a replacement motor intended to be coupled to an existing residential pool pump that is used to circulate and filter pool water in order to maintain clarity and sanitation.

“Residential pool pump” means an impeller attached to a motor that is used to circulate and filter pool water in order to maintain clarity and sanitation.

“Residential pool pump and motor combination” means a residential pool pump motor coupled to a residential pool pump.

“Residential pool pump motor” means a motor that is used as a replacement-residential pool pump motor or as part of a residential pool pump and motor combination.

“Rotodynamic pump” means a pump in which energy is continuously imparted to the pumped fluid by means of a rotating impeller, propeller, or rotor.

“Self-priming pump” means a pump that:

(1) Is designed to lift liquid that originates below the centerline of the pump inlet;

(2) Contains at least one internal recirculation passage; and

(3) Requires a manual filling of the pump casing prior to initial start-up, but is able to re-prime after the initial start-up without the use of external vacuum sources, manual filling, or a foot valve.

“Service factor (of an AC motor)” means a multiplier which, when applied to the rated horsepower, indicates a permissible horsepower loading which can be carried under the conditions specified for the service factor.

“Single axis flow pump” means a pump in which the liquid inlet of the bare pump is on the same axis as the liquid discharge of the bare pump.

“Skimmer” means a suction opening intended to remove floating debris from the water surface and installed where part of the water intake opening is open to atmospheric pressure.

“Speed” means the number of revolutions of the motor shaft in a given unit of time. Speed is expressed in revolutions per minute (RPM).

“Split phase start” means a motor that employs a main winding with a starting winding to start the motor. After the motor has attained approximately 75 percent of rated speed, the starting winding is automatically disconnected by means of a centrifugal switch or by a relay.

“Standard spa” means a portable electric spa that is not an inflatable spa, an exercise spa, or the exercise spa portion of a combination spa.

“Standard spa portion” means the reservoir of a combination spa that is a standard spa.

“Standby mode” of a portable electric spa means that only the default settings as shipped by the manufacturer are enabled, except water temperature, which may be adjusted to meet the test conditions. No manual operations are enabled.

“Submersible turbine (ST) pump” means a single-stage or multi-stage, dry rotor, rotodynamic pump that is designed to be operated with the motor and stage(s) fully submerged in the pumped liquid; that has a shaft input power greater than or equal to 1 hp and less than or equal to 200 hp at BEP and full impeller diameter and at the number of stages required for testing; and in which each stage of this pump consists of an impeller and diffuser, and liquid enters and exits each stage of the bare pump in a direction parallel to the impeller shaft. Examples include, but are not limited to, pumps within the specified horsepower range that comply with ANSI/HI nomenclature VS0, as described in ANSI/HI 2.1-2.2-2014.

“Thermal efficiency” of a pool heater means a measure of the percentage of heat from the input that is transferred to the water, as determined using the applicable test method in section 1604(g) of this Article.

“Total horsepower” of an AC motor means a value equal to the product of the motor's service factor and the motor's nameplate (rated) horsepower.

“Twin head pump” means a dry rotor, single-axis flow, rotodynamic pump that contains two impeller assemblies, which both share a common casing, inlet, and discharge, and each of which:

(1) Contains an impeller, impeller shaft (or motor shaft in the case of close-coupled pumps), shaft seal or packing, driver (if present), and mechanical equipment (if present);

(2) Has a shaft input power that is greater than or equal to 1 hp and less than or equal to 200 hp at best efficiency point (BEP) and full impeller diameter;

(3) Has the same primary energy source (if sold with a driver) and the same electrical, physical, and functional characteristics that affect energy consumption or energy efficiency;

(4) Is mounted in its own volute; and

(5) Discharges liquid through its volute and the common discharge in a plane perpendicular to the impeller shaft.

“Two speed motor” means a motor designed or intended to be operated at one of two preset speeds.

“Variable speed motor” means a motor whose speed can vary continuously over a specified range.

(h) Plumbing Fittings.

“Basic model” of a federally regulated commercial pre-rinse spray valve means all spray settings of a given class manufactured by one manufacturer, which have essentially identical physical and functional (or hydraulic) characteristics that affect water consumption or water efficiency.

“Commercial pre-rinse spray valve” means a handheld device that has a release-to-close valve and is suitable for removing food residue from food service items before cleaning them in commercial dishwashing or ware washing equipment.

“Faucet” means a lavatory faucet, kitchen faucet, metering faucet, or replacement aerator for a lavatory or kitchen faucet.

“Flow rate” means the rate of water flow of a plumbing fitting, as determined using the applicable test method in section 1604(h) of this Article.

“Kitchen faucet” means a faucet designed for discharge into a kitchen sink.

“Kitchen replacement aerator” means an aerator sold as a replacement, separate from the kitchen faucet to which it is intended to be attached.

“Lavatory” means a basin or bowl designed for washing the face and hands.

“Lavatory faucet” means a plumbing fitting designed for discharge into a lavatory.

“Lavatory replacement aerator” means an aerator sold as a replacement, separate from the lavatory faucet to which it is intended to be attached.

“Leakage rate” means the rate of leakage through a tub spout diverter directly into the bathtub when the diverter is in the diverting position, as determined using the applicable test method in section 1604(h) of this Article.

“Lift-type tub spout diverter” means a tub spout diverter that is operated by lifting the control.

“Metering faucet” means a faucet that, when turned on, will gradually shut itself off over a period of several seconds.

“ozf” means ounce force.

“Plumbing fitting” means a device that controls and guides the flow of water in a supply system. A plumbing fitting includes a showerhead, lavatory faucet, kitchen faucet, metering faucet, lavatory replacement aerator, kitchen replacement aerator, wash fountain, commercial pre-rinse spray valve, public lavatory faucet, or tub spout diverter.

“psi” means pounds per square inch.

“Public lavatory faucet” means a fitting intended to be installed in non-residential bathrooms that are exposed to walk-in traffic.

“Pull-type tub spout diverter” means a tub spout diverter that is operated by pulling the control.

“Push-type tub spout diverter” means a tub spout diverter that is operated by pushing the control.

“Showerhead” means a device through which water is discharged for a shower bath. Showerhead means any showerhead (including a hand held showerhead), except a safety showerhead.

“Showerhead-tub spout diverter combination” means a group of plumbing fittings sold as a matched set and consisting of a control valve, a tub spout diverter, and a showerhead.

“Spray force” of a commercial prerinse spray valve means the amount of force exerted onto the spray disc, measured in ounce-force (ozf).

“Tub spout diverter” means a device designed to stop the flow of water into a bathtub and to divert it so that the water discharges through a showerhead.

“Turn-type tub spout diverter” means a tub spout diverter that is operated by turning the control.

“Wash fountain” means a lavatory faucet designed for simultaneous use by two or more persons.

“Water use” means the quantity of water flowing through a showerhead or faucet, at point of use, as determined using the test method in section 1604(h).

(i) Plumbing Fixtures.

“Blowout toilet” means a water closet that uses a non-siphonic bowl with an integral flushing rim, a trap at the rear of the bowl, and a visible or concealed jet that operates with a blowout action.

“Dual-flush effective flush volume” means the average flush volume of two reduced flushes and one full flush.

“Dual-flush water closet” is a water closet incorporating a feature that allows the user to flush the water closet with either a reduced or a full volume of water.

“Electromechanical hydraulic water closet” means a water closet that utilizes electrically operated devices, such as, but not limited to, air compressors, pumps, solenoids, motors, or macerators in place of or to aid gravity in evacuating waste from the toilet bowl.

“Flushometer tank” means a flushometer valve that is integrated within an accumulator vessel affixed and adjacent to a plumbing fixture inlet so as to cause an effective enlargement of the supply line immediately before the fixture.

“Flushometer tank water closet” means a water closet utilizing a flushometer tank.

“Flushometer valve” means a valve that is attached to a pressurized water supply pipe and that is designed so that when actuated it opens the line for direct flow into the fixture at a rate and predetermined quantity to properly operate the fixture, and then gradually closes in order to provide trap reseal in the fixture and to avoid water hammer. The pipe to which the device is connected is, in itself, of sufficient size that when open shall allow the device to deliver water at a sufficient rate of flow for flushing purposes.

“Gallons per flush (gpf)” means gallons per flush as determined using the applicable test method in section 1604(i) of this Article.

“Gravity tank-type water closet” means a water closet that includes a storage tank from which water flows into the bowl by gravity.

“Plumbing fixture” means an exchangeable device, which connects to a plumbing system to deliver and drain away water and waste. A plumbing fixture includes a water closet or a urinal.

“Prison-type urinal” means a urinal designed and marketed expressly for use in prison-type institutions.

“Prison-type water closet” means a water closet designed and marketed expressly for use in prison-type institutions.

“Trough-type urinal” means a urinal designed for simultaneous use by two or more persons.

“Urinal” means a plumbing fixture that receives only liquid body waste and, on demand, conveys the waste through a trap seal into a gravity drainage system.

“Vacuum-type urinal” means a urinal whose bowl is evacuated by the application of a vacuum.

“Vacuum-type water closet” means a water closet whose bowl is evacuated by the application of a vacuum.

“Water closet” means a plumbing fixture having a water-containing receptor that receives liquid and solid body waste through an exposed integral trap into a gravity drainage system.

“Water use” means the quantity of water flowing through a water closet or urinal at point of use, determined in accordance with test procedures under Appendix T of subpart B of 10 C.F.R. part 430.

“Waterless urinal” means a urinal designed to be used without the application of water for flushing.

(j) Fluorescent Lamp Ballasts and Deep-Dimming Fluorescent Lamp Ballasts.

“Arc power” means the entire output power of the ballast and delivered to all attached lamps.

“Ballast luminous efficiency” means the total fluorescent lamp arc power divided by the fluorescent lamp ballast input power multiplied by the appropriate frequency adjustment factor, as defined in Appendix Q of subpart B of 10 C.F.R. part 430.

“Cathode heater cut-out circuit design” or “Cathode cut-out circuit design” means a fluorescent lamp ballast design that incorporates a cathode heater cut out device that turns off the cathode heaters in fluorescent lamps once the lamps are ignited and operating.

“Continuous dimming ballast” means a fluorescent lamp ballast that can continuously vary lamp light levels.

“Deep-dimming fluorescent lamp ballast” means a fluorescent ballast that is capable of operating lamps in dimmed operating modes at any number of levels at or below 50 percent of full output. The term shall only apply to lamp ballasts designed to operate one, two, three, or four T5 or T8 four-foot linear or U-shape fluorescent lamps.

“Electronic circuit design” means the type of circuit used in an electronic fluorescent lamp ballast.

“Fluorescent lamp ballast” means a device that is used to start and operate fluorescent lamps by providing a starting voltage and current and limiting the current during normal operation.

“F34T12 lamp” (also known as a “F40T12/ES lamp”) means a nominal 34 watt tubular fluorescent lamp that is 48 inches in length and 1½ inches in diameter, and conforms to ANSI C78.81-2003 (Data Sheet 7881-ANSI-1006-1).

“F96T12/ES lamp” means a nominal 60 watt tubular fluorescent lamp that is 96 inches in length and 1½ inches in diameter, and conforms to ANSI C78.81- 2003 (Data Sheet 7881-ANSI-3006-1).

“F96T12HO/ES lamp” means a nominal 95 watt tubular fluorescent lamp that is 96 inches in length and 1½ inches in diameter, and conforms to ANSI C78.81- 2003 (Data Sheet 7881-ANSI-1017-1).

“Input power” means the power provided to the ballast, typically line alternating-current power as determined by 10 C.F.R., section 2.5.1.6 of Appendix Q of subpart B of part 430.

“Instant start ballast” or “slimline instant start ballast” means a fluorescent lamp ballast that allows for instantaneous light production without the use of a starter circuit.

“Magnetic circuit design” means a fluorescent lamp ballast design that uses a magnetic core and coil and that alters the voltage and current, but not the frequency, to the lamp.

“Maximum arc power” means the maximum amount of power a dimming ballast will provide to lamps under normal operating conditions. It is the same power as the measured power at 100 percent arc power.

“Maximum input watts” means the maximum input wattage to a ballast resulting from the operation of the maximum number of lamps when tested in accordance with input/output measurements in the UL 935 standard for fluorescent lamp ballasts.

“Minimum input watts” means the minimum input watts to a ballast resulting from the minimum number of lamps when tested in accordance with input/output measurements in the UL 935 standard for fluorescent lamp ballasts.

“Power factor” of a fluorescent lamp ballast means the power input divided by the product of ballast input voltage and input current of a fluorescent lamp ballast, as measured under test conditions specified in ANSI C-82.2-1984.

“Power input” means the power consumption in watts of a ballast and its associated fluorescent lamp or lamps, as determined using the applicable test method in section 1604(j) of this Article.

“Rapid start ballast” means a fluorescent lamp ballast design that uses a starter circuit to heat the cathodes before and during operation.

“Relative light output” means the light output delivered through the use of a ballast divided by the light output delivered through the use of a reference ballast, expressed as a percent, as determined using the applicable test method in section 1604(j) of this Article.

“Replacement ballast” means a ballast that:

(1) is designed for use to replace an existing fluorescent lamp ballast in a previously installed luminaire;

(2) is marked “FOR REPLACEMENT USE ONLY”;

(3) is shipped by the manufacturer in packages containing not more than 10 fluorescent lamp ballasts; and

(4) has output leads that when fully extended are a total length that is less than the length of the lamp with which the ballast is intended to be operated.

“Specialty application mercury vapor lamp ballast” means a mercury vapor lamp ballast:

(1) that is designed and marketed for operation of mercury vapor lamps used in quality inspection, industrial processing, or scientific use, including fluorescent microscopy and ultraviolet curing; and

(2) in the case of a specialty application mercury vapor lamp ballast, the label of which:

(A) provides that the specialty application mercury vapor lamp ballast is ‘For specialty applications only, not for general illumination’; and

(B) specifies the specific applications for which the ballast is designed.

“Stepped dimming ballast” means a fluorescent lamp ballast that can operate lamps at two or more light output steps.

“T5 lamp” means a tubular fluorescent lamp ⅝ inches in diameter.

“T8 lamp” means a tubular fluorescent lamp 8/8 or 1 inch in diameter.

“T12 lamp” means a tubular fluorescent lamp 12/8 or 1½ inches in diameter.

“Weighted ballast luminous efficacy” means the weighted average ballast luminous efficacy as calculated in section 1604(j)(2)(D) of this Article.

(k) Lamps.

“Appliance Lamp” means any lamp that:

(1) is specifically designed to operate in a household appliance and has a maximum wattage of 40 watts (including an oven lamp, refrigerator lamp, and vacuum cleaner lamp); and

(2) when sold at retail, is designated and marketed for the intended application, with:

(A) the designation on the lamp packaging; and

(B) marketing materials that identify the lamp as being for appliance use.

“Average lamp efficacy (LPW)” means the measured lamp efficacy of fluorescent lamps, incandescent lamps, or light-emitting diode (LED) lamps, expressed in lumens per watt, as determined using the applicable test method in section 1604(k) of this Article.

“Average rated life” means the length of time declared by the manufacturer at which 50 percent of any large number of units of a lamp reaches the end of their individual lives.

“Beam angle” means the angle within which the lamp produces 50% of the maximum luminous intensity.

“Bipin lamp” means a lamp having a base with two pins that is used for tungsten-halogen reflector lamps, low-voltage tungsten-halogen lamps, or fluorescent lamps.

“Black Light Lamp” means a lamp that emits radiant energy in the UV-A band (315-400 nm) and is designated and marketed as a “black light”. The designation shall be on the lamp packaging, and marketing materials shall identify the lamp as a black light lamp.

“BPAR incandescent reflector lamp” means a reflector lamp as shown in figure C78.21-278 on page 32 of ANSI C78.21-2003.

“BR incandescent reflector lamp” means a reflector lamp that has:

(1) a bulged section below the bulb's major diameter and above its approximate base line as shown in Figure 1 (RB) on page 7 of ANSI C79.1-1994; and

(2) a finished size and shape shown in ANSI C78.21-1989, including the referenced reflective characteristics in part 7 of ANSI C78.21-1989.

“BR30” means a BR incandescent reflector lamp with a diameter of 30/8ths of an inch and a lamp wattage of 85 or less.

“BR40” means a BR incandescent reflector lamp with a diameter of 40/8ths of an inch and a lamp wattage of 120 or less.

“Bug Lamp” means a lamp that contains a filter to suppress the blue and green portions of the visible spectrum and is designated and marketed as a “bug light”. The designation shall be on the lamp packaging, and marketing materials shall identify the lamp as being a bug lamp.

“Center beam candle power” means luminous intensity at the center of the beam of a reflector lamp, measured in candelas (cd).

“Clear type lamp” means a general service incandescent lamp with an envelope (commonly referred to as the bulb) that utilizes no diffusive coatings. The filament is plainly visible. The illumination it produces is crisp-edged, with well-defined shadows on the background when an object is positioned in its emissive path. The designation shall be on the lamp packaging, and marketing materials shall identify the lamp as being a clear type lamp.

“Colored fluorescent lamp” means a fluorescent lamp designated and marketed as a colored lamp, and not designed or marketed for general illumination applications with either of the following characteristics:

(1) a CRI less than 40, as determined according to the method given in CIE publication 13.3- 1995, or

(2) a correlated color temperature less than 2,500K or greater than 7,000K as determined according to the method set forth in IES LM-9-09.

“Colored incandescent lamp” means an incandescent lamp designated and marketed as a colored lamp that has:

(1) a CRI of less than 50, as determined according to the test method given in CIE publication 13.3-1995; or

(2) a correlated color temperature less than 2,500K, or greater than 4,600K, where correlated color temperature is computed according to the “Computation of Correlated Color Temperature and Distribution Temperature,” Journal of the Optical Society of America, Vol. 58, pages 1528-1595 (1968).

“Connected LED lamp” means an LED lamp capable of changing its lumen output or spectral power distribution in response to an external control signal other than a change in RMS AC supply voltage or a 0-10 volt DC control signal. Connected LED lamp includes lamps that can be controlled wirelessly and through power line carrier digital communication.

“Design voltage” with respect to an incandescent lamp means:

(1) the voltage marked as the intended operating voltage;

(2) the mid-point of the voltage range if the lamp is marked with a voltage range; or

(3) 120 V if the lamp is not marked with a voltage or voltage range.

“Directional lamp” means a lamp that has at least 80 percent of light output within a solid angle of π steradian corresponding to a cone with an angle of 120°.

“Duv” means the closest distance from the chromaticity coordinate of the light source to the Planckian locus on the International Commission on Illumination (CIE) (u', 2/3 v') coordinates with "+" sign for above and "-" sign for below the Planckian locus.

“ER incandescent reflector lamp” means a reflector lamp with an elliptical section below the bulb's major diameter and above its approximate baseline as shown in Figure 1 (RE) on page 7 of ANSI C79.1-1994 and a finished size and shape shown in ANSI C78.21-1989 including the referenced reflective characteristics in part 7 of ANSI C78.21-1989.

“ER30” means an ER incandescent reflector lamp with a diameter of 30/8ths of an inch.

“ER40” means an ER incandescent reflector lamp with a diameter of 40/8ths of an inch.

“Federally regulated general service fluorescent lamp” means any fluorescent lamp which can be used to satisfy the majority of fluorescent lighting applications but does not include any lamp designed and marketed for the following non-general applications:

(1) fluorescent lamps designed to promote plant growth;

(2) fluorescent lamps specifically designed for cold temperature applications;

(3) colored fluorescent lamps;

(4) impact-resistant fluorescent lamps;

(5) reflectorized or aperture fluorescent lamps;

(6) fluorescent lamps designed for use in reprographic equipment;

(7) lamps primarily designed to produce radiation in the ultra-violet region of the spectrum; or

(8) lamps with a CRI of 87 or greater.

“Federally regulated general service incandescent lamp” means a standard incandescent or halogen-type lamp that:

(1) is intended for general service applications;

(2) has a medium screw base

(3) has a lumen range of not less than 310 lumens and not more than 2,600 lumens; and

(4) is capable of being operated at a voltage range at least partially within 110 and 130 volts; but does not include the following incandescent lamps:

(A) An appliance lamp.

(B) A black light lamp.

(C) A bug lamp.

(D) A colored lamp.

(E) An infrared lamp.

(F) A left-hand thread lamp.

(G) A marine lamp.

(H) A marine signal service lamp.

(I) A mine service lamp.

(J) A plant light lamp.

(K) A reflector lamp.

(L) A rough service lamp.

(M) A shatter-resistant lamp (including a shatter-proof lamp and a shatter-protected lamp).

(N) A sign service lamp.

(O) A silver bowl lamp.

(P) A showcase lamp.

(Q) A 3-way incandescent lamp.

(R) A traffic signal lamp.

(S) A vibration service lamp.

(T) A G shape lamp (as defined in ANSI C78.20-2003 and C79.1-2002) with a diameter of five inches or more.

(U) A T shape lamp (as defined in ANSI C78.20-2003 and C79.1-2002) and that uses not more than 40 watts or has a length of more than 10 inches.

(V) A B, BA, CA, F, G16 1/2, G-25, G30, S, or M-14 lamp (as defined in ANSI C79.1-2002 and ANSI C78.20-2003) of 40 watts or less.

"Federally regulated general service lamp" includes:

(1) general service incandescent lamps;

(2) compact fluorescent lamps;

(3) general service light-emitting diode (LED or OLED) lamps; and

(4) any other lamps that the Secretary determines are used to satisfy lighting applications traditionally served by general service incandescent lamps; but does not include any:

(A) lighting application or bulb shape excluded from the definition of "federally regulated general service incandescent lamp;" or;

(B) general service fluorescent lamp or incandescent reflector lamp.

"Federally regulated incandescent reflector lamp" (commonly referred to as a reflector lamp) means any lamp in which light is produced by a filament heated to incandescence by an electric current, that:

(1) is not colored or designed for rough or vibration service applications;

(2) contains an inner reflective coating on the outer bulb to direct the light;

(3) has an R, PAR, ER, BR, BPAR, or similar bulb shape with an E26 medium screw base;

(4) has a rated voltage or voltage range that lies at least partially in the range of 115 and 130 volts;

(5) has a diameter that exceeds 2.25 inches; and

(6) has a rated wattage that is 40 watts or higher.

"Fluorescent lamp" means a low pressure mercury electric-discharge source in which a fluorescing coating transforms some of the ultraviolet energy generated by the mercury discharge into light.

“Frost type lamp” means an inside-frosted lamp producing modest diffusion of the light with little reduction of light output. Any lamp labeled as “standard” or “frosted” is a “frost type lamp.”

“Incandescent lamp” means a glass enclosure in which light is produced by a filament of conducting material heated by an electric current.

“Infrared lamp” means a lamp that radiates predominately in the infrared region of the electromagnetic spectrum, and where visible radiation is not of principal interest. The designation shall be on the lamp packaging, and marketing materials shall identify the lamp as being an infrared lamp.

“Initial performance values” means the photometric and electrical characteristics of the lamp at the end of 100 hours of operation.

“Integrated compact fluorescent lamp” means an integrally ballasted compact fluorescent lamp that contains all components necessary for the starting and stable operation of the lamp, contains an ANSI standard base, does not include any replaceable or interchangeable parts, and is capable of being connected directly to a branch circuit through a corresponding ANSI standard lamp-holder (socket).

“Intermediate base incandescent lamp” means a lamp that uses an intermediate screw base as described in ANSI C81.61-2006, Specifications for Electric Bases, common designation E17.

“Lamp” means an electrical appliance that includes a glass envelope and produces optical radiation for the purpose of visual illumination, designated to be installed into a luminaire by means of an integral lamp-holder. Types of lamps include incandescent, fluorescent, and high intensity discharge (high pressure sodium and metal halide).

“Lamp Efficacy” means the measured lumen output of a lamp in lumens divided by the measured lamp electrical power input in watts expressed in units of lumens per watt (LPW).

“Lamp electrical power input” means the total electrical input to the lamp, including both arc and cathode power where appropriate, at the reference condition, in units of watts.

“Left-handed thread lamp” means a lamp on which the base screws into a lamp socket in a counter-clockwise direction, and screws out of a lamp socket in a clockwise direction.

“Lifetime of a compact fluorescent lamp” means the length of operating time between first use and failure of 50 percent of the sample units, determined in accordance with the test procedures described in section 3.3 of Appendix W to subpart B of 10 C.F.R. part 430.

“Lumen maintenance” means the lumen output measured at a given time in the life of the lamp and expressed as a percentage of the measured initial lumen output.

“Lumen output” means the total luminous flux produced by the lamp at full output, measured in lumens.

“Marine Lamp” means a lamp specifically designed to operate in a marine application. The designation shall be on the lamp packaging, and marketing materials shall identify the lamp as being a marine lamp or similar designation.

“Marine Signal Lamp” means a lamp specifically designed to provide signals to marine vessels for seaway safety. The designation shall be on the lamp packaging, and marketing materials shall identify the lamp as being a marine signal lamp or similar designation.

“Medium base compact fluorescent lamp” means an integrally ballasted fluorescent lamp with a medium screw base, a rated input voltage range of 115 to 130 volts, and which is designed as a direct replacement for a general service incandescent lamp; however the term does not include:

(1) any lamp that is:

(A) specifically designed to be used for special purpose applications; and

(B) unlikely to be used in general purpose applications, such as the applications described in the definition of “Federally- regulated general service incandescent lamp” in this section; or

(2) any lamp not described in the definition of “Federally regulated general service incandescent lamp” in this section that is excluded by the Secretary, by rule, because the lamp is:

(A) designed for special applications; and

(B) unlikely to be used in general purpose applications.

“Medium screw base” means an Edison screw base identified with the prefix E-26 in the *American National Standard for Electric Lamp Bases*, ANSI IEC C81.61- 2003.

“Mine service lamp” means a lamp specifically designed for use in mine applications. The designation shall be on the lamp packaging, and marketing materials shall identify the lamp as being a mine service lamp or similar designation.

“Modified spectrum” means, with respect to an incandescent lamp, an incandescent lamp that:

(1) is not a colored incandescent lamp; and

(2) when operated at the rated voltage and wattage of the incandescent lamp—

(A) has a color point with (x,y) chromaticity coordinates on the C.I.E. 1931 chromaticity diagram, figure 2, page 3 of IESNA LM-16 that lies below the black-body locus; and

(B) has a color point with (x,y) chromaticity coordinates on the C.I.E. 1931 chromaticity diagram, figure 2, page 3 of IESNA LM-16 that lies at least 4 MacAdam steps, as referenced in IESNA LM-16, distant from the color point of a clear lamp with the same filament and bulb shape, operated at the same rated voltage and wattage.

“Nominal lamp wattage” means the lamp wattage stated by the manufacturer on the lamp and on any accompanying documents or packaging.

“Organic light-emitting diode (OLED)” means a thin-film light-emitting device that typically consists of a series of organic layers between two electrical contacts (electrodes).

“Plant Light Lamp” means a lamp that contains a filter to suppress yellow and green portions of the spectrum and is designated and marketed as a “plant light”. The designation shall be on the lamp packaging, and marketing materials shall identify the lamp as being a plant light.

“Power” means the total amount of electric power required, measured in Watts, to operate the lamp, as measured at the base of the lamp.

“R20 incandescent reflector lamp” means a reflector lamp that has a face diameter of approximately 2.5 inches, as shown in figure 1(R) on page 7 of ANSI C79.1-1994.

“R20 short lamp” means a lamp that is an R20 incandescent reflector lamp that has a rated wattage of 100 watts; has a maximum overall length of 3⅝, or 3.625, inches; and is designed, labeled, and marketed specifically for pool and spa applications.

“Rated lumens” means a lamp's lumen value as stated by the manufacturer on the lamp, the lamp's packaging, or the lamp's marketing materials.

“Rated luminous flux” or “rated lumen output” means the initial lumen rating (100 hour) declared by the manufacturer, which consists of the lumen rating of a lamp at the end of 100 hours of operation.

“Rated supply frequency” means the frequency marked on the lamp.

“Rated voltage” means the voltage marked on the lamp. With respect to incandescent lamps, rated voltage means:

(1) the design voltage if the design voltage is 115V, 130V, or between 115V and 130V;

(2) 115V if the design voltage is less than 115V and greater than or equal to 100V and the lamp can operate at 115V; and

(3) 130V if the design voltage is greater than 130V and less than or equal to 150V and the lamp can operate at 130V.

“Rated wattage” means:

(1) with respect to fluorescent lamps and general service fluorescent lamps, if the lamp is:

(A) listed in ANSI C78.81 or ANSI C78.901-2014, the rated wattage of a lamp determined by the lamp designation of Clause 11.1 of ANSI C78.81 or ANSI C78.901-2014;

(B) a residential straight-shaped lamp, and not listed in ANSI C78.81, the wattage of a lamp when operated on a reference ballast for which the lamp is designed; or

(C) neither listed in one of the ANSI standards referenced in (1)(A) of this definition, nor a residential straight-shaped lamp, the electrical power of a lamp when measured according to the test procedures outlined in 10 C.F.R. Appendix R to subpart B of part 430.

(2) with respect to general service incandescent lamps and incandescent reflector lamps, the electrical power measured according to the test procedures outlined in 10 C.F.R. Appendix R to subpart B of part 430.

"Reflector lamp" means a lamp that has a reflective coating applied directly to part of the bulb surface and that reflects light in a forward direction away from the lamp base. The designation shall be on the lamp packaging, and marketing materials shall identify the lamp as being a reflector lamp or similar designation.

"Residential straight-shaped lamp" means a low pressure mercury electric-discharge source in which a fluorescing coating transforms some of the ultraviolet energy generated by the mercury discharge into light, including a straight-shaped fluorescent lamp with medium bipin bases of nominal overall length of 48 inches and is either designed exclusively for residential applications; or designed primarily and marketed exclusively for residential applications.

(1) A lamp is designed exclusively for residential applications if it will not function for more than 100 hours with a commercial high-power-factor ballast.

(2) A lamp is designed primarily and marketed exclusively for residential applications if it:

(A) is permanently and clearly marked as being for residential use only;

(B) has a life of 6,000 hours or less when used with a commercial high-power-factor ballast;

(C) is not labeled or represented as a replacement for a fluorescent lamp that is a covered product; and

(D) is marketed and distributed in a manner designed to minimize use of the lamp with commercial high-power-factor ballasts.

(3) A manufacturer may market and distribute a lamp in a manner designed to minimize use of the lamp with commercial high-power-factor ballasts by:

(A) packaging and labeling the lamp in a manner that clearly indicates the lamp is for residential use only and includes appropriate instructions concerning proper and improper use; if the lamp is included in a catalog or price list that also includes commercial/industrial lamps, listing the lamp in a separate residential section accompanied by notes about proper use on the same page; and providing as part of any express warranty accompanying the lamp that improper use voids such warranty; or

(B) using other comparably effective measures to minimize use with commercial high-power-factor ballasts.

"Rough service lamp" means a lamp that:

(1) has a minimum of 5 supports with filament configurations that are C7A, C11, C17, and C22 as listed in Figure 6-12 of the 9th edition of the IES Lighting Handbook, or similar configurations where lead wires are not counted as supports; and

(2) is designated and marketed specifically for 'rough service' applications, with:

(A) the designation appearing on the lamp packaging; and

(B) marketing materials that identify the lamp as being for rough service.

"Shatter-resistant lamp, shatter-proof lamp, or shatter-protected lamp" means a lamp that:

(1) has a coating or equivalent technology that is compliant with the NSF/ANSI 51-2007 and is designed to contain the glass if the glass envelope of the lamp is broken; and

(2) is designated and marketed for the intended application, with:

(A) the designation on the lamp packaging; and

(B) marketing material that identify the lamp as being shatter-resistant, shatter-proof, or shatter-protected.

"Showcase lamp" means a lamp that has a tubular bulb with a conventional screw base. The longer lamps have filaments with supports similar to linear incandescent lamps. The designation shall be on the lamp packaging, and marketing materials shall identify the lamp as being a showcase lamp.

"Sign service lamp" means a lamp of the vacuum type or gas-filled with sufficiently low bulb temperature to permit exposed outdoor use on high-speed flashing circuits. The designation shall be on the lamp packaging, and marketing materials shall identify the lamp as being a sign service lamp.

"Silver Bowl lamp" means a lamp that has a reflective coating applied directly to part of the bulb surface and that reflects light in a backward direction toward the lamp base. The designation shall be on the lamp packaging, and marketing materials shall identify the lamp as being a silver bowl lamp or similar designation.

"Slimline lamp" means a straight tubular-shaped instant start lamp with single pin bases of nominal overall length of 96 inches and a rated wattage of 52 or more, as defined in ANSI C78.81-2003.

"Soft white type lamp" means a lamp that emits diffuse illumination that produces soft-edged, poorly defined shadows on the background when an object is positioned in its emissive path. The designation shall be on the lamp packaging, and marketing materials shall identify the lamp as being a soft white lamp.

"Specialty application mercury vapor lamp ballast" means a mercury vapor lamp ballast that:

(1) is designed and marketed for operation of mercury vapor lamps used in quality inspection, industrial processing, or scientific use, including fluorescent microscopy and ultraviolet curing; and

(2) in the case of a specialty application mercury vapor lamp ballast, the label of which:

(A) provides that the specialty application mercury vapor lamp ballast is "For specialty applications only, not for general illumination"; and

(B) specifies the specific applications for which the ballast is designed.

"State-regulated Light Emitting Diode (LED) lamp" means a lamp capable of producing light with Duv between -0.012 and 0.012, and that has an E12, E17, E26, or GU24 base, including LED lamps that are designed for retrofit within existing recessed can housings that contain one of the preceding bases. State-regulated LED lamp does not include a lamp with a brightness of more than 2,600 lumens or a lamp that cannot produce light with a correlated color temperature between 2200-K and 7000-K.

"State-regulated small diameter directional lamp" means a directional lamp that meets all of the following criteria:

(1) Capable of operating at 12 volts, 24 volts, or 120 volts;

(2) Has an ANSI ANSLG C81.61-2009 (R2014) compliant pin base or E26 base;

(3) Is a non-tubular directional lamp with a diameter of less than or equal to 2.25 inches;

(4) Has a lumen output of less than or equal to 850 lumens, or has a wattage of 75 watts or less; and

(5) Has a rated life greater than 300 hours.

State-regulated small diameter directional lamp includes incandescent filament, LED, and any other lighting technology that falls within this definition. State-regulated small diameter directional lamp does not include directional lamps with an E26 base that utilize light emitting diodes (LEDs) and are covered under the definition of state-regulated Light Emitting Diode Lamps.

"3-way incandescent lamp" means an incandescent lamp that

(1) employs two filaments, operated separately and in combination, to provide three light levels, and

(2) is designated on the lamp packaging and marketing materials as being a 3-way incandescent lamp.

"U-shaped lamp" means a tubular U-shaped fluorescent lamp with a medium bipin base with a nominal overall length between 22 and 25 inches and a rated wattage of 28 or more.

"Vibration service lamp" means a lamp that:

(1) has filament configurations that are C5, C7A, or C9, as listed in Figure 6-12 of the 9th Edition of the IES Lighting Handbook or similar configurations;

(2) has a maximum wattage of 60 watts;

(3) is sold at retail in packages of two lamps or less; and

(4) is designated and marketed specifically for vibration service or vibration-resistant applications with:

(A) the designation appearing on the lamp packaging; and

(B) marketing materials that identify the lamp as being vibration service only.

“Voltage range” means a band of operating voltages as marked on an incandescent lamp, indicating that the lamp is designed to operate at any voltage within the band.

(I) Emergency Lighting and Self-Contained Lighting Controls.

“Astronomical time-switch control” means an automatic time-switch control device capable of controlling lighting based on the time of day and astronomical events such as sunset and sunrise, accounting for geographic location and date of the year.

“Automatic daylight control” means a self-contained lighting control device that automatically adjusts lighting levels by using one or more photosensors to detect changes in daylight illumination and then changing the electric lighting level in response to the changes in daylight.

“Automatic time-switch control” means a self-contained lighting control device that controls lighting based on the time of day.

“Average Luminance” means the arithmetic mean of all points measured on a surface.

“Dimmer” means a self-contained lighting control device that varies the electric light lumen output in order to change the level of illumination and energy use.

“DIP switch” means one of a set of small on-off switches mounted inside a self-contained lighting control that modifies the functionality of the lighting control.

“Edge-lit exit sign” means an illuminated exit sign in which lettering etched into a glass, plastic, or similar panel is illuminated through the edge of the panel and in which the lettering and the background are luminous.

“Electroluminescent light source” means a solid-state device which produces light when an electric current is passed through a phosphor-impregnated material.

“Face” means an illuminated side of an illuminated exit sign.

“Illuminated exit sign” means a sign that:

(1) is designed to be permanently fixed in place to identify an exit; and

(2) consists of:

(A) an electrically powered integral light source that illuminates the legend “EXIT” and any directional indicators; and

(B) provides contrast between the legend, any directional indicators, and the background.

“Input power” means the rate of electricity consumption, in watts, of an illuminated exit sign.

“Input power demand” means the amount of power required to continuously illuminate an exit sign model, measured in watts. For exit sign models with rechargeable batteries, input power demand shall be measured with batteries at full charge.

“Lighting control system” means a lighting control in which two or more components are required to be installed in the field to provide all of the functionality required to make a fully functional and compliant lighting control. Lighting control systems are regulated under sections 119 and 134 of the Title 24 of the California Code of Regulations.

“Luminance” means a measure of the brightness of a luminous surface.

“Luminance contrast” means the relative brightness of an object against its background.

“Matrix illuminated exit sign” means an illuminated exit sign that uses an array of small light sources, such as LEDs, to form the lettering of a sign.

“Maximum to minimum luminance ratio” means the ratio of maximum to minimum luminance where the luminance should be uniform.

“Occupant sensing device” means a self-contained lighting control that automatically controls light, allows for complete manual operation, and includes the following devices:

(1) “Motion sensor,” which means an occupant sensing device that is used outdoors, automatically turns lights off when an area is vacated, and automatically turns the lights on when the area is occupied.

(2) “Occupancy sensor,” which means an occupant sensing device that is used indoors and automatically turns lights off when an area is vacated and is capable of automatically turning lights on when an area is occupied.

(3) “Partial off,” which means a motion sensor or occupancy sensor that automatically turns off part of the lighting load when an area is vacated and is capable of automatically turning on the lighting load when an area is occupied.

(4) “Partial on,” which means a motion sensor or occupancy sensor that automatically turns lights off when an area is vacated and is capable of automatically and manually turning on part of the lighting load when an area is occupied.

(5) “Vacancy sensor,” which means an occupant sensing device that automatically turns lights off when an area is vacated but requires lighting loads to be turned on manually.

“Panel-type exit sign” means an illuminated exit sign in which a translucent panel diffuses a light source and in which both the lettering and background are luminous.

“Photo control” means an automatic daylight control device that automatically turns lights on and off, or automatically adjusts lighting levels, in response to the amount of daylight that is available. A photo control may also be one component of a field assembled lighting system, the component having the capability to provide a signal proportional to the amount of daylight to a lighting control system for the purpose of dimming the electric lights.

“Photometric measurements” means the measurements of luminance levels made on the face of the sign.

“Self-contained lighting control” means a unitary lighting control module where no additional components are required for it to be a fully functional lighting control. Self-contained lighting control includes an astronomical time-switch control; an automatic daylight control; an automatic time-switch control; a dimmer; a lighting photo control; or an occupant sensing device.

“Stencil illuminated exit sign” means an illuminated exit sign in which an opaque panel conceals the light source and in which only translucent lettering is luminous.

“Wall box dimmer” means a dimmer manufactured and intended to be mounted inside an electrical box within a wall.

(m) Traffic Signal Modules.

“Power consumption” means the power consumption, in watts, of a traffic signal module.

“Traffic signal lamp” means a lamp that is designed and marketed for traffic signal applications and has a lifetime of 8,000 hours or greater.

“Traffic signal module for vehicle control” means a standard 8-inch (200 mm) or 12-inch (300 mm) round traffic signal indication that:

(1) consists of a light source, a lens, and all other parts necessary for operation; and

(2) communicates movement messages to drivers through red, amber, green colors.

“Traffic signal module for pedestrian control” means a traffic signal module that conveys movement information to pedestrians.

(n) Luminaires and Torchieres.

“Art work luminaire” means a luminaire designed only to be mounted directly to art work only for the purpose of illuminating that art work.

“Automatic daylight control” is a control that automatically reduces lighting in response to available daylight. This control typically uses photosensors to detect changes in daylight illumination and then change the electric lighting level in response to the daylight changes.

“Correlated Color temperature (CCT)” means the color appearance, or actual color of the lamp in accordance with IES LM-16-1993.

“Dedicated fluorescent lamp socket” means one of the ANSI designated type of fluorescent lamp sockets that will accept only a compact or linear fluorescent lamp, and that is used in luminaires where the ballast is permanently installed in the luminaire between the power cord and the lamp socket. “Dedicated fluorescent lamp socket” does not include sockets where the ballast is located between the socket and the lamp, or where the ballast is integrated into the lamp.

“E12 screw-based socket” means an ANSI designation for a screw-base socket commonly referred to as a candelabra screw-base.

“E17 screw-based socket” means an ANSI designation for a screw-base socket commonly referred to as an intermediate screw-base.

“E26 screw-based socket” means an ANSI designation for a screw-base socket commonly referred to as a medium screw-base.

“General lighting application” means lighting that provides an interior or exterior area with overall illumination.

“GU24” means the designation of a lamp holder and socket configuration, based on a coding system by the International Energy Consortium: “G” indicates the broad type of two or more projecting contacts, such as pins or posts; “U” distinguishes between lamp and holder designs of similar type that are not interchangeable due to electrical or mechanical requirements; and “24” indicates 24 millimeter center to center spacing of electrical contact posts.”

“GU24 adaptor” means a one-piece device, pig-tail, wiring harness, or other such socket/base attachment that connects to a GU24 socket on one end and provides a different type of socket or connection on the other end; a GU24 adaptor does not alter the voltage. A fluorescent ballast with a GU24 base is not a GU24 adaptor.

“High frequency electronic ballast” means a fluorescent lamp ballast having an output frequency of no less than 20kHz. “Fluorescent lamp ballast” is defined in section 1602(j) of this Article.

“Indoor metal halide luminaire” is a metal halide luminaire that is not an outdoor metal halide luminaire.

“Integral control” means a fully functional occupancy sensor or automatic daylight control system for which all required components for an integral control, including control devices, sensors, and wiring, are factory installed, packaged and sold with each individual luminaire, and are integrated into each individual luminaire at the factory in one of the following three methods:

(1) is integrated directly into the luminaire housing and hardwired to the lighting system; or

(2) is pre-wired to allow proper functionality between the control and luminaire, and to allow remote mounting of the control. One end of the wiring shall be pre-wired to the luminaire, and the other end shall be prewired to the control. The wiring may be either a metal or fiber conductor. The wiring may allow temporary disconnection in the field to allow remote mounting of the control; or

(3) is pre-wired with a wireless radio controlled sensor to allow proper functionality between the control and luminaire, and to allow interaction with the wireless control signal in the lighting system.

“Lamp-ballast system efficiency” means the efficiency of a lamp and ballast combination expressed as a percentage and calculated by dividing the output circuit lamp power by the input circuit power as measured in accordance with ANSI C82.6-2005 (American National Standard for Ballasts for High-Intensity Discharge Lamps - Methods of Measurement).

“LED array or module” means an assembly of LED packages (components), or dies on a printed circuit board or substrate, possibly with optical elements and additional thermal, mechanical, and electrical interfaces that are intended to connect to the load side of a LED driver. Power source and ANSI standard base are not incorporated into the device. The device cannot be connected directly to the branch circuit.

“LED lamp, integrated” means an integrated assembly comprised of LED packages (components) or LED arrays (modules), LED driver, ANSI standard base and other optical, thermal, mechanical and electrical components. The device is intended to connect directly to the branch circuit through a corresponding ANSI standard lamp holder (socket)

“LED lamp, non-integrated” means an assembly comprised of an LED array (module) or LED packages (components) and an ANSI standard base. The device is intended to connect to the LED driver of an LED luminaire through an ANSI standard lamp-holder (socket). The device cannot be connected directly to the branch circuit.

“LED luminaire” means a complete lighting unit consisting of LED-based light emitting elements and a matched driver together with parts to distribute light, to position and protect the light emitting elements, and to connect the unit to a branch circuit. The LED-based lighting emitting elements may take the form of LED packages (components), LED arrays (modules), or LED lamps. The LED luminaire is intended to connect directly to a branch circuit.

“LED package” means an assembly of one or more LED dies that includes wire bond or other type of electrical connections, possibly with an optical element and thermal, mechanical, and electrical interfaces. Power source and ANSI standardized base are not incorporated into the device. The device cannot be connected directly to the branch circuit.

“Luminaire efficacy” for LEDs means the luminous efficacy of the LED luminaire, or of the LED light engine with integral heat sink, when tested in accordance with IES LM-79-08.

“Metal halide ballast” means a ballast used to start and operate metal halide lamps.

“Metal halide lamp” means a high-intensity discharge lamp in which the major portion of the light is produced by radiation of metal halides and their products of dissociation, possibly in combination with metallic vapors.

“Metal halide lamp fixture” or “Metal halide luminaire” means a light fixture for general lighting application designed to be operated with a metal halide lamp and a ballast for a metal halide lamp.

“Nonpulse-start electronic ballast” means an electronic ballast with a starting method other than pulse-start.

“Occupant sensor, lighting” means a device that automatically reduces lighting or turns lights off soon after an area is vacated.

“Outdoor metal halide luminaire” means a metal halide luminaire that is UL 1598 Wet Location Listed and labeled “Suitable for Wet Locations” as specified by the National Electrical Code 2005, Section 410.4(A).

“Portable floor luminaire” means a portable luminaire designed to be located on the floor and not located on a table, desk, or other structure above the floor.

“Portable luminaire” means a luminaire that has a flexible cord and an attachment plug for connection to a nominal 120-volt, 15- or 20-ampere branch circuit; that allows the user to relocate the luminaire without any rewiring; that are typically controlled with a switch located on the luminaire itself or on the power cord; and that are intended for use in accordance with the National Electrical Code, ANSI/NFPA 70-2002. Portable luminaire does not include any of the following:

(1) direct plug-in nightlights;

(2) sun and heat lamps;

(3) aquarium lamps;

(4) medical and dental lights;

(5) portable electric hand lamps;

(6) signs and commercial advertising displays;

(7) photographic lamps;

(8) germicidal lamps;

(9) illuminated vanity mirrors;

(10) lava lamps not providing general or task illumination;

(11) industrial work lights rated for use with lamps providing greater than 7,000 lumens;

(12) portable luminaires for marine use or for use in hazardous locations as defined in the National Electrical Code, ANSI/NFPA 70;

(13) Christmas tree and decorative lighting outfits or electric candles and candelabras without lamp shades that are covered by the Standard for Christmas Tree and Decorative Outfits, UL 588.

“Portable table luminaire” means a portable luminaire designed to be located on a table, desk, or other structure above the floor.

“Probe-start metal halide ballast” means a ballast that:

(1) starts a probe-start metal halide lamp that contains a third starting electrode (probe) in the arc tube; and

(2) does not generally contain an igniter but instead starts lamps with high ballast open circuit voltage.

“Pulse-start metal halide ballast” means an electronic or electromagnetic ballast that starts a pulse-start metal halide lamp with high voltage pulses. Lamps shall be started by first providing a high voltage pulse for ionization of the gas to produce a glow discharge. To complete the starting process, power shall be provided by the ballast to sustain an arc through a glow-to-arc transition.

“System input power rating” means the operating input wattage of the rated lamp/ballast combination published in manufacturer's catalogs based on independent testing lab reports as specified by “Standards for Luminaire” UL 1598.

“Torchiere” means a portable electric lamp with a reflector bowl that directs light upward to give indirect illumination.

“Under-cabinet luminaire” means a luminaire designed for mounting in, on, under, or within modular office furniture.

“Wall mount adjustable luminaire” means a portable luminaire that is designed only to be mounted on a wall, having no base which will allow the luminaire to stand on a horizontal surface.

(o) Dishwashers.

“Compact dishwasher” means a dishwasher that has a capacity of less than eight place settings plus six serving pieces as defined in 10 C.F.R. part 430, Appendix C1 of subpart B.

“Cycle” means a sequence of operations of a dishwasher that performs a complete dishwashing operation, and that may include variations or combinations of the functions of washing, rinsing, and drying.

“Dishwasher” means a cabinet-like appliance that with the aid of water and detergent, washes, rinses, and dries (when a drying process is included) dishware, glassware, eating utensils, and most cooking utensils by chemical, mechanical, or electrical means, and discharges to the plumbing drainage system.

“Energy factor” of a dishwasher means cycles per kWh, as determined using the applicable test method in section 1604(o) of this Article.

“Non-soil-sensing dishwasher” means a dishwasher that does not have the ability to adjust automatically any energy consuming aspect of the normal cycle based on the soil load of the dishes.

“Soil-sensing dishwasher” means a dishwasher that has the ability to adjust any energy-consuming aspect of the normal cycle based on the soil load of the dishes.

“Standard dishwasher” means a dishwasher that has a capacity equal to or greater than eight place settings plus six serving pieces as defined in 10 C.F.R. part 430, Appendix C1 of subpart B.

“Truncated normal cycle” means the normal cycle interrupted to eliminate the power-dry feature after the termination of the last rinse option.

“Water heating dishwasher” means a dishwasher that, as recommended by the manufacturer, is designed for heating cold inlet water (nominal 50°F) or designed for heating water with a nominal inlet water temperature of 120°F. Any dishwasher designated as water-heating (50°F or 120°F inlet water) must provide internal water heating to above 120°F in at least one phase of the normal cycle.

“Water-softening dishwasher” means a dishwasher which incorporates a water softening system that periodically consumes additional water and energy during the cycle to regenerate.

(p) Clothes Washers.

“Automatic clothes washer” means a class of clothes washer that has a control system that is capable of scheduling a pre-selected combination of operations, such as regulation of water temperature, regulation of the water fill level, and performance of wash, rinse, drain, and spin functions without the need for user intervention subsequent to the initiation of machine operation.

Some models may require user intervention to initiate these different segments of the cycle after the machine has begun operation, but they do not require the user to intervene to regulate the water temperature by adjusting the external water faucet valves.

"Clothes washer" means a consumer product designed to clean clothes, utilizing a water solution of soap and/or detergent and mechanical agitation or other movement; and must be one of the following classes: automatic clothes washers, semi-automatic clothes washers, and other clothes washers.

"Commercial clothes washer" means a soft mount front-loading or soft mount top-loading clothes washer with clothes container compartment no greater than 3.5 ft^3 for horizontal-axis clothes washers, or no greater than 4.0 ft^3 for vertical-axis clothes washers, that is designed for use in (1) applications where the occupants of more than one household will be using it, such as multi-family housing common areas and coin laundries; or (2) other commercial applications.

"Compact clothes washer" means a clothes washer of less than 1.6 ft^3 in clothes container compartment capacity.

"Cycle" means a sequence of operations of a clothes washer that performs a complete washing operation.

"Energy factor" of a clothes washer means ft^3 per kWh per cycle, as determined using the applicable test method in section 1604(p) of this Article.

"Front-loading clothes washer" means a clothes washer with the clothes container compartment access located on the front of the machine.

"Integrated modified energy factor" of a clothes washer means the quotient of the ft^3 (or liter) capacity of the clothes container divided by the total clothes washer energy consumption per cycle, with such energy consumption expressed as the sum of the:

(1) machine electrical energy consumption;

(2) hot water energy consumption;

(3) energy required for removal of the remaining moisture in the wash load; and

(4) combined low-power mode energy consumption.

"Integrated water factor" of a clothes washer means the quotient of the total weighted per-cycle water consumption for all wash cycles in gallons divided by the ft^3 (or liter) capacity of the clothes washer.

"Modified energy factor (MEF)" of a clothes washer means the quotient of the ft^3 capacity of the clothes container divided by the total clothes washer energy consumption per cycle, with such energy consumption expressed as the sum of the machine electrical energy consumption, the hot water energy consumption, and the energy required for removal of the remaining moisture in the wash load, as determined using the applicable test method in section 1604(p) of this Article.

"Other clothes washer" means a class of clothes washer which is not an automatic or semi-automatic clothes washer.

“Semi-automatic clothes washer” means a clothes washer that is the same as an automatic clothes washer except that user intervention is required to regulate the water temperature by adjusting the external water faucet valves.

“Soft mount clothes washer” means a clothes washer that does not require mechanical fastening to a floor for proper operating performance under typical commercial clothes washer applications.

“Standard clothes washer” means a clothes washer of 1.6 ft^3 or more in clothes container compartment capacity.

“Suds-saving” means a feature or option on a clothes washer which allows the user to store used wash water in an external laundry tub for use with subsequent wash loads.

“Top-loading clothes washer” means a clothes washer with the clothes container compartment access located on the top of the machine.

“Water factor” means the quotient of the total weighted per-cycle water consumption divided by the capacity of the clothes washer, determined using the applicable test method in section 1604(p) of this Article.

(q) Clothes Dryers.

“Automatic termination control” means a dryer control system with a sensor which monitors either the dryer load temperature or its moisture content and with a controller which automatically terminates the drying process. A mark or detent which indicates a preferred automatic termination control setting must be present if the dryer is to be classified as having an “automatic termination control”. A mark is a visible single control setting on one or more dryer controls.

“Clothes dryer” means a cabinet-like appliance that is designed to dry fabrics in a tumble-type drum with forced air circulation and that has a drum and a blower driven by an electric motor.

“Compact clothes dryer” means a clothes dryer with a drum capacity less than 4.4 ft^3.

“Cycle” means a sequence of operation of a clothes dryer which performs a clothes drying operation, and may include variations or combinations of the functions of heating, tumbling, and drying.

“Drum capacity” means the volume of the drying drum in ft^3.

“Electric clothes dryer” means a cabinet-like appliance designed to dry fabrics in a tumble-type drum with forced air circulation. The heat source is electricity and the drum and blower(s) are driven by an electric motor(s).

“Energy factor” of a clothes dryer means pounds of clothes dried per kWh, as determined using the applicable test method in section 1604(q) of this Article.

“Gas clothes dryer” means a cabinet-like appliance designed to dry fabrics in a tumble-type drum with forced air circulation. The heat source is gas and the drum and blower(s) are driven by an electric motor(s).

“Standard clothes dryer” means a clothes dryer with a drum capacity of 4.4 ft^3 or greater.

“Ventless clothes dryer” means a clothes dryer that uses a closed-loop system with an internal condenser to remove the evaporated moisture from the heated air. The moist air is not discharged from the cabinet.

(r) Cooking Products and Food Service Equipment.

“Built-in microwave oven” means a microwave oven that is supported by surrounding cabinetry, walls, or other similar structures on at least three sides, and can be supported by surrounding cabinetry or the floor.

“Commercial convection oven” means an appliance that is not a consumer product and that is designed for cooking food by forcing hot air over it using a fan in a closed cavity.

“Commercial hot food holding cabinet” means a heated, fully enclosed compartment, with one or more solid or partial glass doors, that is designed to maintain the temperature of hot food that has been cooked in a separate appliance. “Commercial hot food holding cabinet” does not include heated glass merchandising cabinets, drawer warmers or cook-and-hold appliances.

“Commercial range top” means an appliance that is not a consumer product and that is designed for cooking food by direct or indirect heat transfer from one or more cooking units to one or more cooking containers.

“Combined cooking product” means a household cooking appliance that combines a cooking product with other appliance functionality, which may or may not include another cooking product. Combined cooking products include the following products: Conventional range, microwave/conventional cooking top, microwave/conventional oven, and microwave/conventional range.

“Convection microwave oven” means a microwave oven that incorporates convection features and any other means of cooking in a single compartment.

“Conventional cooking top” means a category of cooking products which is a household cooking appliance consisting of a horizontal surface containing one or more surface units that utilize a gas flame, electric resistance heating, or electric inductive heating. This includes any conventional cooking top component of a combined cooking product.

“Conventional oven” means a category of cooking products which is a household cooking appliance consisting of one or more compartments intended for the cooking or heating of food by means of either a gas flame or electric resistance heating. It does not include portable or countertop ovens which use electric resistance heating for the cooking or heating of food and are designed for an electrical supply of approximately 120 volts. This includes any conventional oven(s) component of a combined cooking product.

“Convertible cooking appliance” means any kitchen range and oven which is a household cooking appliance designed by the manufacturer to be changed in service from use with natural gas to use with LP-gas, and vice versa, by incorporating in the appliance convertible orifices for the main gas burners and a convertible gas pressure regulator.

“Cook-and-hold” appliance means a multiple-mode appliance intended for cooking food that may be used to hold the temperature of the food that has been cooked in the same appliance.

“Cooking products” means consumer products that are used as the major household cooking appliances. They are designed to cook or heat different types of food by one or more of the following sources of heat: gas, electricity, or microwave energy. Each product may consist of a horizontal cooking top containing one or more surface units and/or one or more heating compartments. They must be one of the following classes: conventional ranges, conventional cooking tops, conventional ovens, microwave ovens, microwave/conventional ranges, and other cooking products.

“Drawer warmer” means an appliance that consists of one or more heated drawers and that is designed to hold hot food that has been cooked in a separate appliance at a specified temperature.

“Food service equipment” means a commercial hot food holding cabinet, a commercial convection oven, or a commercial range top.

“Forced convection” means a mode of conventional oven operation in which a fan is used to circulate the heated air within the oven compartment during cooking.

“Heated glass merchandising cabinet” means an appliance with a heated cabinet constructed of glass or clear plastic doors which, with 70% or more clear area, is designed to display and maintain the temperature of hot food that has been cooked in a separate appliance.

“Major cooking component” means either a conventional cooking top, a conventional oven or a microwave oven.

“Microwave oven” means a category of cooking products which is a household cooking appliance consisting of a compartment designed to cook or heat food by means of microwave energy, including microwave ovens with or without thermal elements designed for surface browning of food and convection microwave ovens. This includes any microwave oven(s) component of a combined cooking product.

“Other cooking products” means any category of cooking products other than conventional cooking tops, conventional ovens, and microwave ovens.

“Standby mode” of a non-commercial cooking appliance means any mode in which a cooking product is connected to a mains power source and offers one or more of the following user-oriented or protective functions which may persist for an indefinite time:

(1) facilitation of the activation of other modes (including activation or deactivation of active mode) by remote switch (including remote control), internal sensor, or timer;

(2) provision of continuous functions, including information or status displays (including clocks) or sensor-based functions. A timer is a continuous clock function (which may or may not be associated with a display) that allows for regularly scheduled tasks and that operates on a continuous basis.

“Surface unit” means either a heating unit mounted in a cooking top, or a heating source and its associated heated area of the cooking top, on which vessels are placed for the cooking or heating of food.

(s) Electric Motors and Compressors.

“Accreditation” means recognition by an accreditation body that a laboratory is competent to test the efficiency of electric motors according to the scope and procedures given in 10 C.F.R. sections 431.1 and 431.15, Test Method B of IEEE Std 112-2004 and CSA C390-10.

“Accreditation body” means an organization or entity that conducts and administers an accreditation system and grants accreditation.

“Accreditation system” means a set of requirements to be fulfilled by a testing laboratory, as well as rules of procedure and management, that are used to accredit laboratories.

“Actual volume flow rate” of an air compressor means the volume flow rate of air, compressed and delivered at the standard discharge point, referred to conditions of total temperature, total pressure and composition prevailing at the standard inlet point, and as determined in accordance with the test procedures prescribed in section 1604(s)(3) of this Article.

“Air compressor” means a compressor designed to compress air that has an inlet open to the atmosphere or other source of air, and is made up of a compression element (bare compressor), driver(s), mechanical equipment to drive the compressor element, and any ancillary equipment.

“Air-over electric motor” means an electric motor rated to operate in and be cooled by the airstream of a fan or blower that is not supplied with the motor and whose primary purpose is providing airflow to an application other than the motor driving it.

“Alternative efficiency determination method” or AEDM, means, with respect to an electric motor or a small electric motor, a method of calculating the total power loss and average full load efficiency.

“Ancillary equipment” means any equipment distributed in commerce with an air compressor but that is not a bare compressor, driver, or mechanical equipment. Ancillary equipment is considered to be part of a given air compressor, regardless of whether the ancillary equipment is physically attached to the bare compressor, driver, or mechanical equipment at the time when the air compressor is distributed in commerce.

“Auxiliary substance” means any substance deliberately introduced into a compression process to aid in compression of a gas by any of the following: Lubricating, sealing mechanical clearances, or absorbing heat.

“Average full load efficiency” means the arithmetic mean of the full load efficiencies of a population of electric motors of duplicate design or of a population of small electric motors of duplicate design, where the full load efficiency of each motor in the population is the ratio (expressed as a percentage) of the motor's useful power output to its total power input when the motor is operated at its full rated load, rated voltage, and rated frequency.

“Bare compressor” means the compression element and auxiliary devices (e.g., inlet and outlet valves, seals, lubrication system, and gas flow paths) required for performing the gas compression process, but does not include any of the following:

(1) the driver;

(2) speed-adjusting gear(s);

(3) gas processing apparatuses and piping; and

(4) compressor equipment packaging and mounting facilities and enclosures.

“Basic model” of a federally regulated compressor means all units of a class of compressors manufactured by one manufacturer, having the same primary energy source, the same compressor motor nominal horsepower, and essentially identical electrical, physical, and functional (or pneumatic) characteristics that affect energy consumption and energy efficiency.

“Basic model” of a federally regulated electric motor, as defined in 10 C.F.R. section 431.12, means all units of a given type of electric motor (or class thereof) manufactured by a single manufacturer, and which have the same rating, have electrical characteristics that are essentially identical, and do not have any differing physical or functional characteristics which affect energy consumption or efficiency. For the purpose of this definition, “rating” means one of the 113 combinations of an electric motor's horsepower (or standard kilowatt equivalent), number of poles, and open or enclosed construction, with respect to which 10 C.F.R. section 431.25 prescribes nominal full load efficiency standards.

“Basic model” of a federally regulated small electric motor, as defined in 10 C.F.R. section 431.442, means all units of a given type of small electric motor (or class thereof) manufactured by a single manufacturer, and which have the same rating, have electrical characteristics that are essentially identical, and do not have any differing physical or functional characteristics that affect energy consumption or efficiency. For the purpose of this definition, ‘‘rating’’ means a combination of the small electric motor’s group (i.e., capacitor-start, capacitor-run; capacitor-start, induction-run; or polyphase), horsepower rating (or standard kilowatt equivalent), and number of poles with respect to which 10 C.F.R. section 431.446 prescribes average full load efficiency standards.

“Certification program” means a certification system that determines conformity by electric motors with the energy efficiency standards prescribed by and pursuant to the Act.

“Certification system” means a system, that has its own rules of procedure and management, for giving written assurance that a product, process, or service conforms to a specific standard or other specified requirements, and that is operated by an entity independent of both the party seeking the written assurance and the party providing the product, process or service.

“Compressor” means a machine or apparatus that converts different types of energy into the potential energy of gas pressure for displacement and compression of gaseous media to any higher pressure values above atmospheric pressure and has a pressure ratio at full-load operating pressure greater than 1.3.

“Compressor motor nominal horsepower” means the motor horsepower of the electric motor, as determined in accordance with the applicable procedures in 10 C.F.R. part 431 subparts B and X, with which the rated air compressor is distributed in commerce.

“Definite purpose electric motor” means any electric motor that cannot be used in most general purpose applications and is designed either:

(1) To standard ratings with standard operating characteristics or standard mechanical construction for use under service conditions other than usual, such as those specified in NEMA MG1-2009, paragraph 14.3, “Unusual Service Conditions; or

(2) For use on a particular type of application.

“Driver” means the machine providing mechanical input to drive a bare compressor directly or through the use of mechanical equipment.

“Electric motor” means a machine which converts electrical power into rotational mechanical power.

“Enclosed motor” means an electric motor so constructed as to prevent the free exchange of air between the inside and outside of the case but not sufficiently closed to be termed airtight.

“Fire pump electric motor” means an electric motor, including any IEC equivalent, that meets the requirements of section 9.5 of NFPA 20 (2010).

“Full-load actual volume flow rate” means the actual volume flow rate of the compressor at the full-load operating pressure.

“General purpose electric motor” means any electric motor that is designed in standard ratings with either:

(1) Standard operating characteristics and mechanical construction for use under usual service conditions, such as those specified in NEMA MG1-2009, paragraph 14.2, “Usual Service Conditions,” and without restriction to a particular application or type of application; or

(2) Standard operating characteristics or standard mechanical construction for use under unusual service conditions, such as those specified in NEMA MG1-2009, paragraph 14.3, “Unusual Service Conditions,” or for a particular type of application, and which can be used in most general purpose applications.

“General purpose electric motor (subtype I)” means a general purpose electric motor that:

(1) is a single-speed, induction motor;

(2) is rated for continuous duty (MG1) operation or for duty type S1 (IEC);

(3) contains a squirrel-cage (MG1) or cage (IEC) rotor;

(4) has foot-mounting that may include foot-mounting with flanges or detachable feet;

(5) is built in accordance with NEMA T-frame dimensions or their IEC metric equivalents, including a frame size that is between two consecutive NEMA frame sizes or their IEC metric equivalents;

(6) has performance in accordance with NEMA Design A (MG1) or NEMA Design B (MG1) characteristics or equivalent designs such as IEC Design N (IEC);

(7) operates on polyphase alternating current 60-hertz sinusoidal power, and:

(A) is rated at 230 or 460 volts (or both) including motors rated at multiple voltages that include 230 or 460 volts (or both), or

(B) can be operated on 230 or 460 volts (or both); and

(8) includes, but is not limited to, explosion-proof construction.

Note: Definition of General purpose electric motor (subtype I): References to “MG1” above refer to NEMA Standards Publication MG1-2009. References to “IEC” above refer to IEC 60034-1, 60034-12, 60050-411, and 60072-1.

“General purpose electric motor (subtype II)” means any general purpose electric motor~~s~~ which incorporates design elements of a general purpose electric motor (subtype I) but, unlike a general purpose electric motor (subtype I), is configured in one or more of the following ways:

(1) is built in accordance with NEMA U-frame dimensions as described in NEMA MG1-1967 or in accordance with the IEC metric equivalents, including a frame size that is between two consecutive NEMA frame sizes or their IEC metric equivalents;

(2) has performance in accordance with NEMA Design C characteristics as described in MG1 or an equivalent IEC design(s) such as IEC Design H;

(3) is a close-coupled pump motor;

(4) is a footless motor;

(5) is a vertical solid shaft normal thrust motor (as tested in a horizontal configuration) built and designed in a manner consistent with MG1;

(6) is an eight-pole motor (900 RPM); or

(7) is a polyphase motor with a voltage rating of not more than 600 volts, is not rated at 230 or 460 volts (or both), and cannot be operated on 230 or 460 volts (or both).

Note to Definition of General purpose electric motor (subtype II): With the exception of the NEMA Motor Standards MG1-1967references to “MG1” above refer to the 2009 NEMA MG1-2009. References to “IEC” above refer to IEC 60034-1, 60034-12, 60050-411, and 60072-1.

“IEC Design H motor” means an electric motor that:

(1) is an induction motor designed for use with three-phase power;

(2) contains a cage rotor;

(3) is capable of direct-on-line starting

(4) has 4, 6, or 8 poles;

(5) is rated from 0.4 kW to 1600 kW at a frequency of 60 Hz; and

(6) conforms to sections 8.1, 8.2, and 8.3 of the IEC 60034-12 edition 2 requirements for starting torque, locked rotor apparent power, and starting.

“IEC Design N motor” means an electric motor that:

(1) is an induction motor designed for use with three-phase power;

(2) contains a cage rotor;

(3) is capable of direct-on-line starting;

(4) has 2, 4, 6, or 8 poles;

(5) is rated from 0.4 kW to 1600 kW at a frequency of 60 Hz; and

(6) conforms to sections 6.1, 6.2, and 6.3 of the IEC 60034-12 edition 2.1 requirements for torque characteristics, locked rotor apparent power, and starting.

"Mechanical equipment" of a compressor means any component of an air compressor that transfers energy from the driver to the bare compressor.

"NEMA Design A motor" means a squirrel-cage motor that:

(1) is designed to withstand full-voltage starting and developing locked-rotor torque as shown in NEMA MG 1-2009, paragraph 12.38.1;

(2) has pull-up torque not less than the values shown in NEMA MG 1-2009, paragraph 12.40.1;

(3) has breakdown torque not less than the values shown in NEMA MG 1-2009, paragraph 12.39.1;

(4) has a locked-rotor current higher than the values shown in NEMA MG 1-2009, paragraph 12.35.1 for 60 hertz and NEMA MG 1-2009, paragraph 12.35.2 for 50 hertz; and

(5) has a slip at rated load of less than 5 percent for motors with fewer than 10 poles.

"NEMA Design B motor" means a squirrel-cage motor that:

(1) is designed to withstand full-voltage starting;

(2) develops locked-rotor, breakdown, and pull-up torques adequate for general application as specified in sections 12.38, 12.39 and 12.40 of NEMA MG1–2009;

(3) draws locked-rotor current not to exceed the values shown in section 12.35.1 for 60 hertz and 12.35.2 for 50 hertz of NEMA MG1-2009; and

(4) has a slip at rated load of less than 5 percent for motors with fewer than 10 poles.

"NEMA Design C motor" means a squirrel-cage motor that:

(1) is Designed to withstand full-voltage starting and developing locked-rotor torque for high-torque applications up to the values shown in NEMA MG1-2009, paragraph 12.38.2);

(2) has pull-up torque not less than the values shown in NEMA MG1-2009, paragraph 12.40.2;

(3) has breakdown torque not less than the values shown in NEMA MG1-2009, paragraph 12.39.2;

(4) has a locked-rotor current not to exceed the values shown in NEMA MG1-2009, paragraphs 12.35.1 for 60 hertz and 12.35.2 for 50 hertz; and

(5) has a slip at rated load of less than 5 percent.

“Nominal full load efficiency” means, with respect to an electric motor, a representative value of efficiency selected from the “nominal efficiency” column of Table 12–10, NEMA MG1-2009, that is not greater than the average full load efficiency of a population of motors of the same design.

“Open motor” means a motor having ventilating openings which permit passage of external cooling air over and around the windings of the machine.

“Package isentropic efficiency” means the ratio of power required for an ideal isentropic compression process to the actual packaged compressor power input used at a given load point, as determined in accordance with the test procedures prescribed in section 1604(s)(3) of this Article.

“Pressure ratio at full-load operating pressure” means the ratio of discharge pressure to inlet pressure, determined at full-load operating pressure in accordance with the test procedures prescribed in 10 C.F. R. section 431.344.

“Rotor” means a compression element that rotates continually in a single direction about a single shaft or axis.

“Small electric motor” means a NEMA general purpose alternating current single-speed induction motor, built in a two-digit frame number series in accordance with NEMA Standards Publication MG1-1987, including IEC metric equivalent motors.

“Special purpose motor” means any motor, other than a general purpose motor or definite purpose motor, which has special operating characteristics or special mechanical construction, or both, designed for a particular application.

“Total power loss” means that portion of the energy used by an electric motor not converted to rotational mechanical power, expressed in percent.

“Variable-speed compressor” means an air compressor that is capable of adjusting the speed of the driver continuously over the driver operating speed range in response to incremental changes in the required compressor actual volume flow rate.

(t) Distribution Transformers.

“Autotransformer” means a transformer that:

(1) has one physical winding that consists of a series winding part and a common winding part;

(2) has no isolation between its primary and secondary circuits; and

(3) during step-down operation, has a primary voltage that is equal to the total of the series and common winding voltages, and a secondary voltage that is equal to the common winding voltage.

“Basic model” of a federally regulated distribution transformer, as defined in 10 C.F.R. section 431.192, means a group of models of distribution transformers manufactured by a single

manufacturer, that have the same insulation type (i.e., liquid-immersed or dry-type), have the same number of phases (i.e., single or three), have the same standard kVA rating, and do not have any differentiating electrical, physical, or functional features that affect energy consumption. Differences in voltage and differences in basic impulse insulation level (BIL) rating are examples of differentiating electrical features that affect energy consumption.

"BIL" means basic impulse insulation level.

"Distribution transformer" means a transformer that:

(1) has an input voltage of 34.5 kV or less;

(2) has an output voltage of 600 V or less;

(3) is rated for operation at a frequency of 60 Hz; and

(4) has a capacity of 10 kVA to 2500 kVA for liquid-immersed units and 15 kVA to 2500 kVA for dry-type units; but

(5) the term "distribution transformer" does not include a transformer that is an:

(A) autotransformer;

(B) drive (isolation) transformer;

(C) grounding transformer;

(D) machine-tool (control) transformer;

(E) nonventilated transformer;

(F) rectifier transformer;

(G) regulating transformer;

(H) sealed transformer;

(I) special-impedance transformer;

(J) testing transformer;

(K) transformer with tap range of 20 percent or more;

(L) uninterruptible power supply transformer; or

(M) welding transformer.

"Drive (isolation) transformer" means a transformer that:

(1) isolates an electric motor from the line;

(2) accommodates the added loads of drive-created harmonics; and

(3) is designed to withstand the additional mechanical stresses resulting from an alternating current adjustable frequency motor drive or a direct current motor drive.

“Efficiency of distribution transformer” means the ratio of useful power output to the total power input.

“Grounding transformer” means a three-phase transformer intended primarily to provide a neutral point for system-grounding purposes, either by means of:

(1) a grounded wye primary winding and a delta secondary winding; or

(2) a transformer with its primary winding in a zig-zag winding arrangement, and with no secondary winding.

“kVa” means kilovolt-ampere, which is the designation for the apparent power of a circuit.

“Liquid-immersed distribution transformer” means a distribution transformer in which the core and coil assembly is immersed in an insulating liquid.

“Low voltage dry-type distribution transformer” means a distribution transformer that has an input voltage of 600 volts or less, that is air cooled, and that does not use oil as a coolant.

“Machine-tool (control) transformer” means a transformer that is equipped with a fuse or other over-current protection device, and is generally used for the operation of a solenoid, contactor, relay, portable tool, or localized lighting.

“Medium-voltage dry-type distribution transformer” means a distribution transformer in which the core and coil assembly is immersed in a gaseous or dry-compound insulating medium, and which has a rated primary voltage between 601 V and 34.5 kV.

“Mining distribution transformer” means a medium-voltage dry-type distribution transformer that is built only for installation in an underground mine or surface mine, inside equipment for use in an underground mine or surface mine, on-board equipment for use in an underground mine or surface mine, or for equipment used for digging, drilling, or tunneling underground or above ground, and that has a nameplate which identifies the transformer as being for this use only.

“No-load loss” means those losses that are incident to the excitation of the transformer.

“Nonventilated transformer” means a transformer constructed so as to prevent external air circulation through the coils of the transformer while operating at zero gauge pressure.

“Phase angle” means the angle between two phasors, where the two phasors represent progressions of periodic waves of either:

(1) two voltages;

(2) two currents; or

(3) a voltage and a current of an alternating current circuit.

“Phase angle correction” means the adjustment (correction) of measurement data to negate the effects of phase angle error.

“Phase angle error” means incorrect displacement of the phase angle, introduced by the components of the test equipment.

“Rectifier transformer” means a transformer that operates at the fundamental frequency of an alternating-current system and that is designed to have one or more output windings connected to a rectifier.

“Reference temperature” means 20 °C for no-load loss, 55 °C for load loss of liquid-immersed distribution transformers at 50 percent load, and 75 °C for load loss of both low-voltage and medium-voltage dry-type distribution transformers, at 35 percent load and 50 percent load, respectively. It is the temperature at which the transformer losses must be determined, and to which such losses must be corrected if testing is done at a different point. (These temperatures are specified in the test method in 10 C.F.R. Appendix A to subpart K of part 431.)

“Regulating transformer” means a transformer that varies the voltage, the phase angle, or both voltage and phase angle, of an output circuit and compensates for fluctuation of load and input voltage, phase angle or both voltage and phase angle.

“Sealed transformer” means a transformer designed to remain hermetically sealed under specified conditions of temperature and pressure.

“Special-impedance transformer” means any transformer built to operate at an impedance outside of the normal impedance range for that transformer's kVA rating. The normal impedance range for each kVA rating for liquid-immersed and dry-type transformers is shown in Tables T-1 and T-2, respectively.

Table T-1
Normal Impedance Ranges for Liquid-Immersed Transformers

Single-phase		*Three-phase*	
kVA	*Impedance (%)*	*kVA*	*Impedance (%)*
10	1.0–4.5	15	1.0–4.5
15	1.0–4.5	30	1.0–4.5
25	1.0–4.5	45	1.0–4.5
37.5	1.0–4.5	75	1.0–5.0
50	1.5–4.5	112.5	1.2–6.0
75	1.5–4.5	150	1.2–6.0
100	1.5–4.5	225	1.2–6.0
167	1.5–4.5	300	1.2–6.0
250	1.5–6.0	500	1.5–7.0
333	1.5–6.0	750	5.0–7.5
500	1.5–7.0	1000	5.0–7.5
667	5.0–7.5	1500	5.0–7.5
833	5.0–7.5	2000	5.0–7.5
		2500	5.0–7.5

Table T-2
Normal Impedance Ranges for Dry-Type Transformers

Single-phase		*Three-phase*	
kVA	*Impedance (%)*	*kVA*	*Impedance (%)*
15	1.5–6.0	15	1.5–6.0
25	1.5–6.0	30	1.5–6.0
37.5	1.5–6.0	45	1.5–6.0
50	1.5–6.0	75	1.5–6.0
75	2.0–7.0	112.5	1.5–6.0
100	2.0–7.0	150	1.5–6.0
167	2.5–8.0	225	3.0–7.0
250	3.5–8.0	300	3.0–7.0
333	3.5–8.0	500	4.5–8.0
500	3.5–8.0	750	5.0–8.0
667	5.0–8.0	1000	5.0–8.0
833	5.0–8.0	1500	5.0–8.0
		2000	5.0–8.0
		2500	5.0–8.0

"Testing transformer" means a transformer used in a circuit to produce a specific voltage or current for the purpose of testing electrical equipment.

"Total loss" means the sum of the no-load loss and the load loss for a transformer.

"Transformer" means a device consisting of two or more coils of insulated wire and that transfers alternating current by electromagnetic induction from one coil to another to change the original voltage or current value.

"Transformer with tap range of 20 percent or more" means a transformer with multiple voltage taps, the highest of which equals at least 20 percent more than the lowest, computed based on the sum of the deviations of the voltages of these taps from the transformer's nominal voltage.

"Uninterruptible power supply (UPS) transformer" means a transformer that is used within an uninterruptible power system, which in turn supplies power to loads that are sensitive to power failure, power sags, over voltage, switching transients, line noise, and other power quality factors.

"Welding transformer" means a transformer designed for use in arc welding equipment or resistance welding equipment.

(u) External Power Supplies.

"Active mode" for federally regulated external power supplies and state-regulated external power supplies means the mode of operation when an external power supply is connected to the main electricity supply and the output is connected to a load.

"Adaptive external power supply" means an external power supply that can alter its output voltage during active-mode based on an established digital communication protocol with the end-use application without any user-generated action.

“Basic-voltage external power supply” means an external power supply that is not a low-voltage external power supply.

“Class A external power supply” means a device that:

(1) is designed to convert line voltage AC input into lower voltage AC or DC output;

(2) is able to convert to only one AC or DC output voltage at a time;

(3) is sold with, or intended to be used with, a separate end-use product that constitutes the primary load;

(4) is contained in a separate physical enclosure from the end-use product;

(5) is connected to the end-use product via a removable or hard-wired male/female electrical connection, cable, cord, or other wiring; and

(6) has nameplate output power that is less than or equal to 250 watts.

The term “Class A external power supply” does not include any device that:

(A) requires Federal Food and Drug Administration listing and approval as a medical device in accordance with section 513 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 360(c)); or

(B) powers the charger of a detachable battery pack or charges the battery of a product that is fully or primarily motor operated.

“Detachable battery” means a battery that is:

(1) Contained in a separate enclosure from the product; and

(2) Intended to be removed or disconnected from the product for recharging.

“Direct operation external power supply” means an external power supply that can operate a consumer product that is not a battery charger without the assistance of a battery.

“External power supply design family” means a set of external power supply basic models, produced by the same manufacturer, which share the same circuit layout, output power, and output cord resistance, but differ in output voltage.

“Federally regulated external power supply” means an external power supply circuit that is used to convert household electric current into DC current or lower-voltage AC current to operate a consumer product.

“Indirect operation external power supply” means an external power supply that cannot operate a consumer product that is not a battery charger without the assistance of a battery as determined by the steps in paragraphs (1)(A) through (E) of this definition:

(1) If the external power supply (EPS) can be connected to an end-use consumer product and that consumer product can be operated using battery power, the method for determining whether that EPS is incapable of operating that consumer product directly is as follows:

(A) If the end-use product has a removable battery, remove it for the remainder of the test and proceed to the step in paragraph (1)(E) of this definition. If not, proceed to the step in paragraph (1)(B).

(B) Charge the battery in the application via the EPS such that the application can operate as intended before taking any additional steps.

(C) Disconnect the EPS from the application. From an off mode state, turn on the application and record the time necessary for it to become operational to the nearest five second increment (5 seconds, 10 seconds, etc.).

(D) Operate the application using power only from the battery until the application stops functioning due to the battery discharging.

(E) Connect the EPS first to mains and then to the application. Immediately attempt to operate the application. If the battery was removed for testing and the end-use product operates as intended, the EPS is not an indirect operation EPS and paragraph 2 of this definition does not apply. If the battery could not be removed for testing, record the time for the application to become operational to the nearest five second increment (5 seconds, 10 seconds, etc.).

(2) If the time recorded in paragraph (1)(E) of this definition is greater than the summation of the time recorded in paragraph (1)(C) of this definition and five seconds, the EPS cannot operate the application directly and is an indirect operation EPS.

"Low-voltage external power supply" means an external power supply with a nameplate output voltage less than 6 volts and nameplate output current greater than or equal to 550 milliamps.

"Multiple-voltage external power supply" means an external power supply that is designed to convert line voltage AC input into more than one simultaneous lower-voltage output.

"No-load mode" means the mode of operation when a Class A external power supply is connected to the main electricity supply and the output is not connected to a load.

"Security or life safety alarm or surveillance system" means:

(1) Equipment designed and marketed to perform any of the following functions (on a continuous basis):

(A) Monitor, detect, record, or provide notification of intrusion or access to real property or physical assets or notification of threats to life safety.

(B) Deter or control access to real property or physical assets, or prevent the unauthorized removal of physical assets.

(C) Monitor, detect, record, or provide notification of fire, gas, smoke, flooding, or other physical threats to real property, physical assets, or life safety.

(2) This term does not include any product with a principal function other than life safety, security, or surveillance that:

(A) Is designed and marketed with a built-in alarm or theft-deterrent feature; or

(B) Does not operate necessarily and continuously in active mode.

“Single-voltage external AC-AC power supply” means an external power supply that is designed to convert line voltage AC input into lower voltage AC output and is able to convert to only one AC output voltage at a time.

“Single-voltage external AC-DC power supply” means an external power supply that is designed to convert line voltage AC input into lower-voltage DC output and is able to convert to only one DC output voltage at a time.

“State-regulated external power supply” means a single-voltage external AC to DC or AC to AC power supply that:

(1) is designed to convert line voltage AC input into lower voltage DC or AC output;

(2) is able to convert to only one DC or AC output voltage at a time;

(3) is sold with, or intended to be used with, a separate end-use product that constitutes the primary load;

(4) is contained within a separate physical enclosure from the end-use product;

(5) is connected to the end-use product via a removable or hard-wired male/female electrical connection, cable, cord, or other wiring;

(6) does not have batteries or battery packs that physically attach directly (including those that are removable) to the power supply unit;

(7) does not have a battery chemistry or type selector switch and an indicator light; or, does not have a battery chemistry or type selector switch and a state of charge meter;

(8) has a nameplate output power less than or equal to 250 watts.

The term “state-regulated external power supply” does not include a device that is a “Class A external power supply” that is federally regulated. The term “state-regulated external power supply” does not include a power supply circuit, driver, or device that is designed exclusively to be connected to, and power:

(1) light-emitting diodes providing illumination;

(2) organic light-emitting diodes providing illumination; or

(3) ceiling fans using direct current motors.

“Switch-selectable single voltage external power supply” means a single-voltage AC-AC or AC-DC power supply that allows users to choose from more than one output voltage.

(v) Computers, Computer Monitors, Televisions, Signage Displays, and Consumer Audio and Video Equipment.

“Add-in card” means a removable device that can be installed in a computer peripheral component interconnect (PCI) or other slot. Add-in card does not include hard-disks, system memory, removable devices that are intended to operate outside of a computer chassis, or other

components that are listed in Table V-8. It also does not include cards, such as riser cards, that split or physically extend a motherboard slot.

“Aspect ratio” means the ratio of width to height of the viewable screen area. Common examples include 4:3 and 16:9.

“Audio standby-passive mode” means the appliance is connected to a power source, produces neither sound nor performs any mechanical function (e.g. playing, recording) but can be switched into another mode with the remote control unit or an internal signal.

“Automatic brightness control” means an integrated control system that automatically adjusts the brightness of a television based upon ambient lighting conditions.

“Combination TV” means a system in which a television or television monitor and an additional device or devices (including but not limited to a DVD player or VCR) are combined into a single unit in which the additional devices are included in the television casing.

“Compact audio product”, also known as a mini, mid, micro, or shelf audio system, means an integrated audio system encased in a single housing that includes an amplifier and radio tuner, attached or separable speakers, and can reproduce audio from one or more of the following media: magnetic tape, CD, DVD, or flash memory. “Compact audio product” does not include products that can be independently powered by internal batteries or that have a powered external satellite antenna, or that can provide a video output signal.

“Component TV” means a television composed of two or more separate components (e.g., separate display device and tuner) marketed and sold as a television under one model or system designation. The system may have more than one power cord.

“Composite video” means a video display interface that uses Radio Corporation of America (RCA) connections carrying a signal defined by the Society of Motion Picture and Television Engineers' (SMPTE) standard, SMPTE 170M-2004 for regions that support a power frequency of 59.94 Hz or International Telecommunication Union's (ITU) standard, ITU-R BT 470-6 for regions that support a power frequency of 50 Hz.

“Computer” means a device that performs logical operations and processes data. A computer includes both stationary and portable units and includes a desktop computer, a portable all-in-one, a notebook computer, a mobile gaming system, a high expandability computer, a small-scale server, a thin client, and a workstation. Although a computer is capable of using input devices and displays, such devices are not required to be included with the computer when the computer is shipped. A computer is composed of, at a minimum:

(1) A central processing unit (CPU) to perform operations or, if no CPU is present, then the device must function as a client gateway to a server and the server acts as a computational CPU;

(2) Ability to support user input devices such as a keyboard, mouse, or touchpad; and

(3) An integrated display screen or the ability to support an external display screen to output information.

The term “computer” does not include a tablet, a game console, a television, a small computer device, a server other than a small-scale server, or an industrial computer.

“Computer monitor” means an analog or digital device of diagonal screen size greater than or equal to 17 inches and less than or equal to 61 inches, that has a pixel density of greater than 5000 pixels per square inch, and that is designed primarily for the display of computer generated signals for viewing by one person in a desk-based environment. A computer monitor is composed of a display screen and associated electronics.

A computer monitor does not include:

(1) Displays with integrated or replaceable batteries designed to support primary operation without AC mains or external DC power, (e.g., electronic readers, mobile phones, tablets, battery-powered digital picture frames); or

(2) A television or a signage display.

“Computer monitor off mode” means the computer monitor is connected to a power source, produces no visual information, and cannot be switched into any other mode with a remote control unit, an internal signal, or an external signal.

“Computer monitor sleep mode” means a low-power mode in which the computer monitor provides one or more non-primary protective functions or continuous functions.

“Computer off mode” means an ACPI System Level S5 state.

“Computer sleep mode” means a low-power mode that the computer enters automatically after a period of inactivity or by manual selection. A computer with sleep capability can quickly “wake” in response to network connections or user interface devices with a latency of less than or equal to five seconds from initiation of the wake event to the system becoming fully usable, including rendering of display. For systems where ACPI standards are applicable, computer sleep mode is ACPI System Level S3 (suspend to RAM) state. Some computers utilize an alternative sleep mode to ACPI S3.

“Desktop computer” means a computer whose main unit is designed to be located in a fixed location, often on a desk or on the floor. A desktop computer includes an integrated desktop computer. A workstation, a high expandability computer, or a small-scale server is not a desktop computer.

“Digital Cinema Initiative (DCI)-P3” means a red-green-blue (RGB) color space that covers 41.7% of the CIELUV color space.

“Digital versatile disc (DVD)” means a laser-encoded plastic medium capable of storing a large amount of digital audio, video, and computer data.

“Digital versatile disc (DVD) player” means a commercially-available electronic product encased in a single housing that includes an integral power supply and for which the sole purpose is the decoding of digitized video signals on a DVD.

“Digital versatile disc (DVD) recorder” means a commercially-available electronic product encased in a single housing that includes an integral power supply and for which the sole purpose is the production or recording of digitized video signals on a DVD. “DVD recorder” does not include models that have an EPG function.

“Digital video recorder (DVR)” means a device which can record video signals onto a hard disk drive or other device that can store the images digitally. “DVR” does not include models that have an EPG function.”

“Discrete GPU” means a graphics processing unit (GPU) with a local memory controller interface and local graphics-specific memory.

“Download acquisition mode (DAM)” or “Standby-active mode” means the product is connected to a power source, produces neither sound nor a picture, and is downloading channel listing information according to a defined schedule for use by the electronic programming guide, monitoring for emergency messaging/communications or otherwise communicating through a network protocol. The power use in this mode is typically greater than the power requirement in TV standby-passive mode and less than the power requirement in on mode.

“Electronic programming guide (EPG)” means an application that provides an interactive, onscreen menu of TV listings, and that downloads program information from the vertical blanking interval of a regular TV signal.

“Energy-Efficient Ethernet capability” means Ethernet interfaces that are capable of reducing power consumption during times of low data throughput, as specified in *IEEE 802.3az-2010*.

“Enhanced-performance display (EPD)” means a computer monitor that has all of the following features and functionalities:

(1) A contrast ratio of at least 60:1 measured at a horizontal viewing angle of at least 85°, with or without a screen cover glass;

(2) A native resolution equal to or greater than 2.3 megapixels (MP); and

(3) A color gamut size of at least sRGB as defined by *IEC 61966-2 - 1:1999*. Shifts in color space are allowable as long as 99 percent or more of defined sRGB colors are supported.

“Expandability score (ES)” means the results of a calculation designed to estimate a computer's power supply capacity based on the power draw if each interface present in the system were operated at their designed maximum voltage and current.

“First discrete GPU” means the computer's discrete GPU that has the highest frame buffer bandwidth measured in gigabytes per second (GB/s).

“Forced menu” means a menu which requires the selection of a display mode by a user upon their first use after the manufacture of the television.

“Frame buffer bandwidth” means the amount of data that is processed per second by a discrete GPU, expressed in gigabytes per second (GB/s). It is calculated based on Ecma International Standard ECMA-383 (December 2010).

“Game console” means a device that is designed and marketed primarily for video game usage and that the consumer does not have the ability to add or remove system memory or a central processing unit.

“Gaming monitor” means a computer monitor that is capable of adjusting the monitor refresh rate with the frame rate of the video content, and supports a continuously variable refresh rate ranging across a factor of at least 1.75 times the minimum supported (for example, a variable refresh rate of at least 40Hz to 70Hz if the minimum supported refresh rate is 40Hz). The monitor may include incremental hardware-based assistance.

“Graphical user interface (GUI)” means a user interface, beyond a text-based interface, that allows users to interact with electronic devices through graphical icons and visual indicators.

“Graphics processing unit (GPU)” means an integrated circuit designed to accelerate the rendering of two-dimensional or three-dimensional content to displays. A GPU may be either integrated with the CPU or discrete.

“High-definition multimedia interface (HDMI)” means an audio and video interface as defined by HDMI® Specification Informational Version 1.0 or greater.

“High expandability computer” means a computer with any of the following:

(1) An expandability score of more than 690;

(2) If the computer is manufactured before January 1, 2020, a power supply of 600 watts or greater and either:

(A) a first discrete GPU with a frame buffer bandwidth of 400 gigabytes per second (GB/s) or greater; or

(B) a total of 8 gigabytes or more of system memory with a bandwidth of 432 GB/s or more and an integrated GPU.

(3) If the computer is manufactured on or after January 1, 2020, a power supply of 600 watts or greater and either:

(A) a first discrete GPU with a frame buffer bandwidth of 600 gigabytes per second (GB/s) or greater; or

(B) a total of 8 gigabytes or more of system memory with a bandwidth of 632 GB/s or more and an integrated GPU.

“Hybrid graphics” means a functionality that automatically places the system's first discrete GPU in a low-power state when not required in favor of an integrated GPU. This functionality allows graphics rendering by lower power and lower capability integrated GPUs while on battery or when the output graphics are not overly complex while then allowing the more power consumptive but more capable discrete GPU to provide rendering capability when the system requires it.

“Idle condition” means an active state of a computer where no user interaction is occurring and where no user-prescribed task is underway.

“Industrial computer” means any of the following:

(1) A process controller that is designed specifically to automate an industrial, medical, or laboratory process.

(2) A computer that is integrated into the chassis of industrial, medical, or laboratory equipment that contains more than a computer, and that is designed specifically to perform logical operations and process data for an industrial, medical, or laboratory product using product-specific software.

"Integrated desktop computer" means a desktop computer in which the computing hardware and display are integrated into a single housing, and which is connected to AC power through a single cable.

Integrated desktop computers come in one of two forms:

(1) a system where the display and computer are physically combined into a single unit; or

(2) a system packaged as a single system where the display is separate but is connected to the main chassis by a DC power cord, and both the computer and display are powered from a single power supply.

"Integrated GPU" means a graphics solution that does not contain a discrete GPU.

"Integrated occupancy sensor" means a feature built into a television capable of sensing presence and entering TV standby-passive mode or standby-active mode to save energy in an empty room.

"Keyboard, video, and mouse (KVM)" or "keyboard, mouse, and monitor (KMM)" means a computer monitor that can operate with a KVM switch and is designed to be used in a server rack for use solely in a data center.

"Limited capability operating system" means an operating system that performs basic operations and that meets all of the following criteria:

(1) Does not have automatic power management features;

(2) Does not support USB devices;

(3) Does not have GUI; and

(4) Does not support multiple user profiles or distinguish between users.

"Long-idle mode" means a state where the computer has reached an idle condition 15 minutes after operating system boot, after completing an active workload, or after resuming from computer sleep mode, and the primary computer display has entered a low-power state where screen contents cannot be observed (for example, backlight has been turned off) but remains in the working mode ACPI G0.

"Main storage" means the largest capacity non-volatile storage device present in the system.

"Medical computer monitor" means a computer monitor that meets the definition of a device contained in Section 210(h) of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. § 321(h)) and is listed and approved as such by the U.S. Food and Drug Administration.

“Mobile gaming system” means a computer that is primarily used for gaming and that is designed specifically for portability and to be operated for extended periods both with and without a direct connection to an AC mains power source. A mobile gaming system is sold with an integrated display and a physical keyboard, and has all of the following criteria:

(1) First discrete GPU with frame buffer bandwidth of 128 gigabytes per second or greater;

(2) System memory of 16 gigabytes or more;

(3) An external power supply with a nameplate output power of 150 watts or greater; and

(4) Total battery capacity of 75 watt-hours or greater.

“Mobile thin client” means a notebook computer that relies on a connection to remote computing resources, such as a computer server or a remote workstation, to obtain primary functionality, and does not have integral rotational storage media.

“Mobile workstation” means a high-performance, single-user computer primarily used for graphics, computer-aided design (CAD), software development, financial, or scientific applications, among other computation intensive tasks, excluding game play, and that is designed specifically for portability and to be operated for extended periods of time either with or without a direct connection to an external power source. Mobile workstations utilize an integrated display and are capable of operation on an integrated battery. A mobile workstation may use an external power supply and have an integrated keyboard and pointing device. In addition, a mobile workstation must meet all of the following criteria:

(1) Has a mean time between failures (MTBF) of at least 13,000 hours;

(2) Has qualified or is currently being reviewed for qualification by two or more independent software vendor (ISV) product certifications;

(3) Supports either:

(A) At least one discrete GPU with frame buffer bandwidth of 96 gigabytes per second or greater; or

(B) A total of 4 gigabytes or more of system memory with a bandwidth of 134 gigabytes per second or greater and an integrated GPU;

(4) Supports the inclusion of three or more internal storage devices; and

(5) Supports at least 32 gigabytes of system memory.

“Monitor screen area” means the viewable screen area of the computer monitor, calculated by multiplying the viewable image width by the viewable image height. For curved screens, the measurements shall be made along the curvature on the face of the screen rather than along a straight line or chord.

“Native resolution” means the physically present number and size of pixels in a display panel.

“Native vertical resolution” means the physical pixel count for the vertical axis of the television. For example a television with a screen resolution of 1920 x 1080 would have a native vertical resolution of 1080.

“Notebook computer” means a computer designed specifically for portability and to be operated for extended periods both with and without a direct connection to an AC mains power source. A notebook computer is sold with an integrated display and a physical keyboard. The term “notebook computer” includes two-in-one notebooks, mobile thin clients, and notebook computer models with touch-sensitive screens. Notebook computer does not include mobile workstations or mobile gaming systems.

“On mode” means the product is connected to a power source and produces sound and a picture. The power requirement in this mode is typically greater than the power requirement in standby-passive and download acquisition modes.

“Organic light-emitting diode (OLED) monitor” means a monitor in which the emissive electroluminescent layer of the light-emitting diode is a film of organic compound that emits light in response to an electric current.

“Point of Deployment (POD)” means a card which enables a TV to have secure conditional access to a cable or satellite system.

“Portable all-in-one” means a computer designed for limited portability that meets all of the following criteria:

(1) Includes an integrated display with a diagonal size greater than or equal to 17.4 inches;

(2) Does not have a keyboard integrated into the physical housing of the product in its as-shipped configuration;

(3) Includes and primarily relies on touch-screen input, with optional keyboard;

(4) Includes the capacity to connect to a wireless network; and

(5) Includes an internal battery that can power the computer's primary functions.

“Professional signage display” means an electronic display that is:

(1) Composed of an area greater than 1,400 square inches;

(2) Composed of two or more display panels, each with a diagonal size greater than 12 inches;

(3) Designed to be operated by an external data controller; and

(4) Designed and marketed for viewing by multiple people in a non-desk-based environment. Examples of such environments include stadiums, airports, and convention centers.

“Rack-mounted workstation” means a workstation that is designed to be natively rack mounted as described in *IEC 60297-3-101:2004*. The rack-mounted workstation may be

accessed locally by direct connection to the workstation and display or accessed remotely across a network by one or more users.

“Retail on mode power” is the measurement of on mode power in the most consumptive mode available in a forced menu.

“Screen size” means the diagonal length from one corner to the corner furthest away of the viewable screen area of a television, measured in inches.

“Selected input mode” means the input port(s) selected which the television is using as a source to produce a visible or audible output. These modes are required for televisions with multiple possible inputs including but not limited to coaxial, composite, S-Video, HDMI, and component connectors.

“Short-idle mode” means a state where the computer has reached an idle condition five minutes after operating system boot, after completing an active workload, or after resuming from computer sleep mode, and the primary computer display is on and the computer remains in the working mode ACPI G0 (S0).

“Signage display” means an analog or digital device designed primarily for the display of computer-generated signals that is not marketed for use as a computer monitor or a television.

“Small computer device” means a computer system with an integrated and primary display that has a screen area of 20 square inches or less.

“Small-scale server” means a computer that uses desktop components in a desktop form factor but that is designed to be a storage host for other computers. A small-scale server is designed to perform functions such as providing network infrastructure services (for example, archiving) and hosting data and media. This product is not designed to process information for other systems or run Web servers as a primary function. A small-scale server has all the following characteristics:

(1) Designed in a pedestal, tower, or other form factor similar to those of desktop computers such that all data processing, storage, and network interfacing is contained within one box or product;

(2) Designed to operate continuously, except for maintenance;

(3) Capable of operating in a simultaneous multi-user environment serving several users through networked client units; and

(4) Designed for an industry-accepted operating system for home or low-end server applications (e.g., Windows Home Server, Mac OS X Server, Linux, UNIX, Solaris).

“Small volume manufacturer” means a manufacturer that meets all of the following criteria:

(1) The manufacturer's gross revenues from the 12-month period preceding the certification under section 1606(j) of this Article from all of the entity's operations, including operations of any other person or business entity that controls, is controlled by, or is under common control of the entity, is $2,000,000 or less;

(2) The manufacturer assembles and sells the computers at the same location; and

(3) The manufacturer has certified as a small volume manufacturer to the Energy Commission under Section 1606(j) of this Article.

“System memory bandwidth” means the rate at which data can be read from or stored into the computer system's memory, expressed in gigabytes per second (GB/s).

“Tablet” means a device that is designed for portability and that meets all of the following criteria:

(1) Has an integrated display with a diagonal size less than 17.4 inches;

(2) Does not have an integrated, physically attached keyboard in its as-shipped configuration;

(3) Has and primarily relies on touch-screen input;

(4) Has and primarily relies on a wireless network connection; and

(5) Has and is primarily powered by an internal battery with connection to an AC mains power source for battery charging and not for primary powering of the device.

A tablet may be referred to as a slate.

“Television (TV)” means an analog or digital device designed primarily for the display and reception of a terrestrial, satellite, cable, Internet Protocol TV (IPTV), or other broadcast or recorded transmission of analog or digital video and audio signals. TVs include combination TVs, television monitors, component TVs, and any unit that is marketed to the consumer as a TV. “Television (TV)” does not include computer monitors.

“Television monitor” means a TV that does not have an internal tuner/receiver or playback device.

“Thin client” means an independently powered computer that relies on a connection to remote computing resources (for example, a computer server or a remote workstation) to obtain primary functionality. Main computing functions (for example, program execution, data storage, interaction with other internet resources) are provided by remote computing resources. A thin client does not have integral rotational storage media and is designed for use in a fixed location during operation.

“TV standby-passive mode” means the television is connected to a power source, produces neither sound nor picture but can be switched into another mode with the remote control unit or via an internal signal.

“Two-in-one notebook” means a notebook computer which has a clam shell form factor, but has a detachable keyboard. The keyboard and display portions of the product must be shipped as an integrated unit.

“Very high performance monitor” means a computer monitor that meets all of the following criteria:

(1) Has a diagonal screen size of 27 inches or greater;

(2) Has a native resolution equal to or greater than either 3840x2160 pixels or 8.29 megapixels;

(3) Has a color space greater than 99 percent of defined Adobe RGB color or greater than 99 percent of Digital Cinema Initiative (DCI)-P3 colors; and

(4) Has a contrast ratio of at least 60:1 measured at a horizontal viewing angle of at least 85°, with or without a screen cover glass.

“Video Cassette Recorder (VCR)” means a commercially-_available analog recording device that includes an integral power supply and which records television signals onto a tape medium for subsequent viewing.

“Video standby-passive mode” means the appliance is connected to a power source, does not perform any mechanical function (e.g. playing, recording), does not produce video or audio output signals but can be switched into another mode with the remote control unit or an internal signal.

“Viewable screen area” means the continuous total area of a television in square inches which displays a digital or analog video signal and is viewable to a consumer.

“Workstation” means a computer used for graphics, computer-aided design (CAD), software development, financial, or scientific applications, among other computation intensive tasks. A workstation covered by this specification must meet the following criteria:

(1) Product as shipped does not support altering frequency or voltage beyond the computer processing unit and GPU manufacturers' operating specifications;

(2) Has system hardware that supports error-correcting code (ECC) that detects and corrects errors with dedicated circuitry on and across the CPU, interconnect, and system memory; and

(3) Meets two or more of the following criteria:

(A) Supports one or more discrete GPU or discrete compute accelerators.

(B) Supports four or more lanes of PCI-express, other than discrete GPU, connected to accessory expansion slots or ports where each lane has a bandwidth of 8 gigabits per second (Gb/s) or more.

(C) Provides multi-processor support for two or more physically separate processor packages or sockets. This requirement cannot be met with support for a single multi-core processor.

(D) Has qualified or is currently being reviewed for qualification by two or more independent software vendor (ISV) product certifications.

(w) Battery Chargers and Battery Charger Systems.

“24 hour charge and maintenance energy” means the sum of the energy, in watt-hours, consumed by the battery charger system in charge and battery-maintenance mode when charging

the battery over time periods as defined in the applicable test method in section 1604(w) of this Article. This time period may exceed 24 hours.

"À la carte charger" means a battery charger that is individually packaged without batteries. À la carte chargers include those with multi-voltage or multi-port capability.

"Battery" or "battery pack" means an assembly of one or more rechargeable cells intended to provide electrical energy to a product, and may be in one of the following forms: (a) detachable battery: a battery that is contained in a separate enclosure from the product and is intended to be removed or disconnected from the product for recharging; or (b) integral battery: a battery that is contained within the product and is not removed from the product for charging purposes.

"Battery analyzer" means a device:

(1) used to analyze and report a battery's performance and overall condition;

(2) capable of being programmed and performing service functions to restore capability in deficient batteries; and

(3) not intended or marketed to be used on a daily basis for the purpose of charging batteries.

"Battery backup" or "uninterruptible power supply charger (UPS)" means a small battery charger system that is voltage and frequency dependent (VFD) and designed to provide power to an end use product in the event of a power outage, and includes a UPS as defined in IEC 62040-3 ed.2.0. The output of the VFD upon which the UPS is dependent changes in AC input voltage and frequency and is not intended to provide additional corrective functions, such as those relating to the use of tapped transformers.

"Battery energy" means the energy, in watthours, delivered by the battery under the specified discharge conditions as determined using the applicable test method in section 1604(w) of this Article.

"Battery maintenance mode (maintenance mode)" means the mode of operation when the battery charger system is connected to the main electricity supply and the battery is fully charged, but is still connected to the charger.

"Charge return factor" means the number of ampere hours (Ah) returned to the battery during the charge cycle divided by the number of Ah delivered by the battery during discharge.

"Energy ratio" or "nonactive energy ratio" means the ratio of the accumulated nonactive energy divided by the battery energy.

"Federally regulated battery charger" means a device that charges batteries for consumer products, including battery chargers embedded in other consumer products. Backup battery chargers are not included as federally regulated battery chargers. "Federally regulated battery charger" also includes products regulated under 10 C.F.R. section 430.32(z).

"Federally regulated uninterruptible power supply (UPS)" means a battery charger consisting of a combination of convertors, switches and energy storage devices (such as batteries), constituting a power system for maintaining continuity of load power in case of input power failure.

“Inductive charger system” means a small battery charger system that transfers power to the charger through magnetic or electric induction.

“Large battery charger system” means a battery charger system (other than a battery charger system for golf carts) with a rated input power of more than 2 kW.

“Multi-port charger” means a battery charger that is capable of simultaneously charging two or more batteries. These chargers also may have multi-voltage capability, allowing two or more batteries of different voltages to charge simultaneously.

“No battery mode” means the mode of operation when the battery charger is connected to the main electricity supply and the battery is not connected to the charger.

“Power conversion efficiency” means the instantaneous DC output power of the charger system divided by the simultaneous utility AC input power.

“Small battery charger system” means a battery charger system with a rated input power of 2 kW or less, and includes golf cart battery charger systems regardless of the output power.

“State-regulated battery charger system (BCS)” means a battery charger coupled with its batteries or battery chargers coupled with their batteries, which together are referred to as *state-regulated battery charger systems*. This term covers all rechargeable batteries or devices incorporating a rechargeable battery and the chargers used with them. Battery charger systems include, but are not limited to:

(1) electronic devices with a battery that are normally charged from AC line voltage or DC input voltage through an internal or external power supply and a dedicated battery charger;

(2) the battery and battery charger components of devices that are designed to run on battery power during part or all of their operations;

(3) dedicated battery systems primarily designed for electrical or emergency backup; and

(4) devices whose primary function is to charge batteries, along with the batteries they are designed to charge. These units include chargers for power tool batteries and chargers for automotive, AA, AAA, C, D, or 9 V rechargeable batteries, as well as chargers for batteries used in larger industrial motive equipment and à la carte chargers.

The charging circuitry of battery charger systems may or may not be located within the housing of the end-use device itself. In many cases, the battery may be charged with a dedicated external charger and power supply combination that is separate from the device that runs on power from the battery. *State-regulated battery charger systems* do not include federally regulated battery chargers that are covered under standards in 10 C.F.R. section 430.32(z).

The following documents are incorporated by reference in section 1602.

Number	*Title*

FEDERAL STATUTES AND REGULATIONS

C.F.R., Title 10, sections 429.14(d), 429.16(a), and 429.61(d)
C.F.R., Title 10, section 430.2
C.F.R., Title 10, sections 431.25, 431.192, 431.344, 431.442, and 431.446
C.F.R., Title 10, part 430, subpart B
C.F.R., Title 10, part 431, subparts A through Y

Copies available from: Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402
www.ecfr.gov

ADOBE SYSTEMS INCORPORATED

Adobe RGB (1998)	Adobe RGB (1998) Color Image Encoding Version 2005-05 (May 2005)

Copies available from: Adobe Systems Incorporated
Corporate Headquarters
345 Park Avenue
San Jose, CA 95110-2704
www.adobe.com
Phone: (408) 536-6000

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI C78.1-1991 (R1996)	Dimensional and Electrical Characteristics of Fluorescent Lamps, Rapid Start Types
ANSI C78.3-1991 (R1996)	Dimensional and Electrical Characteristics of Fluorescent Lamps, Instant Start and cold Cathode Types
ANSI C78.21-1989	Incandescent Lamps – PAR and R Shapes
ANSI C78.81-2003	American National Standard for Electric Lamp Bases
ANSI C78.901-2014	American National Standard for Electric Lamps—Single-Based Fluorescent Lamps—Dimensional and Electrical Characteristics
ANSI C79.1-1994	Nomenclature for Glass Bulbs – Intended for Use with Electric Lamps
ANSI C79.1-2002	American National Standard for Electric Lamps—Nomenclature for Glass Bulbs Intended for Use with Electric Lamps

ANSI-IEC C81.61-2003	American National Standard for Electric Lamp Bases
ANSI C81.61-2006	Specifications for Electric Bases
ANSI ANSLG C81.61-2009 (2014)	American National Standard for Electrical Lamp Bases – Specifications for Bases (Caps) for Electric Lamps
ANSI C82.2-1984	Fluorescent Lamp Ballasts, Methods of Measurement
ANSI C82.6-2005	Standard for Ballasts for High-Intensity Discharge Lamps - Methods of Measurement
ANSI Z21.50	Vented Gas Fireplaces
ANSI Z21.88	Vented Gas Fireplace Heaters
Copies available from:	American National Standards Institute 1819 L Street, NW, 6th Floor Washington, DC 20036 www.ansi.org Phone: (202) 293-8020 FAX: (202) 293-9287

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C177-13	Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus
ASTM C518-15	Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus
ASTM Standard E 1084-86 (Reapproved 2009)	Standard Test Method for Solar Transmittance (Terrestrial) of Sheet Materials Using Sunlight
Copies available from:	ASTM 100 Barr Harbor Drive West Conshohocken, PA 19428-2959 www.astm.org Phone: (610) 832-9555 FAX: (610) 832-9555

ASSOCIATION OF HOME APPLIANCES MANUFACTURERS (AHAM)

ANSI/AHAM DW-1-1992	Household Electric Dishwashers
Copies available from:	Association of Home Appliance Manufacturers 1111 19th Street, NW, Suite 402 Washington, DC 20036 www.aham.org Phone: (202) 872-5955 FAX: (202) 872-9354

CANADIAN STANDARDS ASSOCIATION (CSA)

CSA C390-10	Test methods, marking requirements, and energy efficiency levels for three-phase induction motors
Copies available from:	Canadian Standards Association 178 Rexdale Blvd. Toronto, Ontario, Canada, M9W 1R3 Phone: (416) 747-4044 www.shop.csa.ca

EUROPEAN COMPUTER MANUFACTURERS ASSOCIATION (ECMA)

Ecma International Standard ECMA- 383 (2010)	Measuring the Energy Consumption of Personal Computing Products, 3rd edition (December 2010)
Copies available from:	ECMA International Rue du Rhone 114 – CH – 1204 Geneva Phone: +41 22 849 6000 FAX: +41 22 849 6001 http://www.ecmainternational.org/publications/standards/Categories_to_be_used_with_Ecma- 383.htm http://www.ecma-international.org/publications/files/ECMA-ST/ECMA- 383.pdf

FM GLOBAL (FM)

FM Class Number 1319 January 2015 edition	Approval Standard for Centrifugal Fire Pumps (Horizontal, End Suction Type)
Copies available from:	FM Global 1151 Boston-Providence Turnpike P.O. Box 9102 Norwood, MA 02062 www.fmglobal.com Phone: (781) 762-4300

HDMI LICENSING ADMINISTRATOR, INC.

HDMI Specification Informational Version 1.0	High-Definition Multimedia Interface Specification
Copies available from:	HDMI Licensing Administrator, Inc. 550 S. Winchester Blvd., Ste. 515 San Jose, CA 95128 www.hdmi.org/

HYDRAULIC INSTITUTE (HI)

ANSI/HI 1.1-1.2-2014	Rotodynamic Centrifugal Pumps for Nomenclature and Definitions
ANSI/HI 2.1-2.2-2014	Rotodynamic Vertical Pumps of Radial, Mixed, and Axial Flow Types for Nomenclature and Definitions
Copies available from:	Hydraulic Institute 6 Campus Dr., First Floor North Parsippany, NJ 07054-4405 http://www.pumps.org/ www.hydraulicinstitute.com Phone: (973) 267-9700 FAX: (973) 267-9055

ILLUMINATING ENGINGEERING SOCIETY (IES)

IES LM-9-09 Lamps	Electrical and Photometric Measurements of Fluorescent
IES LM-16-1993	IES Practical Guide to Colorimetry of Light Sources
IES LM-79-08	Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products
ANSI/IES RP-16-10	Nomenclature and Definitions for Illuminating Engineering
Copies available from:	Illuminating Engineering Society 120 Wall Street, 17th Floor New York, NY 10005-4001 www.ies.org Phone: (212) 248-5000 FAX: (212) 248-5017/18

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)

IEEE 802.3az-2010	IEEE Standard for Information technology-- Local and metropolitan area networks-- Specific requirements-- Part 3: CSMA/CD Access Method and Physical Layer Specifications Amendment 5: Media Access Control Parameters, Physical Layers, and Management Parameters for Energy Efficient Ethernet
Test Method B of IEEE Std 112-2004Motors and Generators	IEEE Standard Test Procedure for Polyphase Induction
Copies available from:	IEEE (TechStreet) Publications Office 10662 Los Vaqueros Circle PO Box 3014 Los Alamitos, CA 90720-1264 www.techstreet.com/ieee/ standards.ieee.org

INTERNATIONAL COMMISSION ON ILLUMINATION (CIE)

CIE Publication 13.3 1995	Method of Measuring and Specifying Colour Rendering Properties of Light Sources
Copies available from:	International Commission on Illumination CIE Central Bureau Kegelgasse 27 A-1030 Vienna AUSTRIA Phone: +43 1 714 31 87 0 FAX: +43 1 714 31 87 18 e-mail: ciecb@cie.co.at

INTERNATIONAL ELECTROTECHNICAL COMMISSION (IEC)

IEC 60034-1 (1996)	Rotating Electrical Machines
IEC 60034-12 Edition 2.1 2007-09	Rotating Electrical Machines, Part 12: Starting Performance of Single-Speed Three-Phase Cage Induction Motors for Voltages Up to and Including 660 V
IEC 60050-411 (1996)	International Electrotechnical Vocabulary Chapter 411: Rotating Machines
IEC 60072-1 (1991)	Dimensions and Output Series for Rotating Electrical Machines- Part 1: Frame Numbers 56 to 400 and Flange Numbers 55 to 1080

IEC 60297-3-101:2004	Mechanical structures for electronic equipment – Dimensions of mechanical structures of the 482,6 mm (19 in) series – Part 3-101: Subracks and associated plug-in units
IEC 61966-2-1:1999	Multimedia systems and equipment –Colour measurement and management. Part 2-1: Colour management - Default RGB colour space - sRGB
Copies available from:	International Electrotechnical Commission 3, rue de Varembé P.O. Box 131 CH – 1211 Geneva 20 Switzerland www.iec.ch Phone: +41 22 919 02 11 FAX: +41 22 919 03 00

INTERNATIONAL TELECOMMUNICATION UNION (ITU)

ITU-R BT 470-6	Conventional Television Systems
Copies available from:	International Telecommunication Union Place des Nations 1211 Geneva 20 Switzerland www.itu.int Phone: +41 22 730 6141 FAX: + 41 22 730 5194

NATIONAL ELECTRIC CODE (NEC)

NFPA 20 (2016) Protection	Standard for the Installation of Stationary Pumps for Fire
ANSI/NFPA 70 (2002)	National Electrical Code
Copies available from:	National Fire Protection Association 1 Batterymarch Park Quincy, MA 02169-7471 www.nfpa.org Phone: (617) 770-3000 FAX: (617) 770-0700

NATIONAL ELECTRIC MANUFACTURERS ASSOCIATION (NEMA)

NEMA MG1-1967	Motors and Generators
NEMA MG1-1987	Motors and Generators
NEMA MG1-2009	Motors and Generators
EMA Premium™: Product Scope And Nominal Efficiency Levels (2001)	Motors
Copies available from:	National Electric Manufacturers Association 1300 N. 17th Street, Suite 1847 Rosslyn, VA 22209 www.nema.org Phone: (703) 841-3200 FAX: (703) 841-3300

NSF INTERNATIONAL

NSF/ANSI 51-2007	Food Equipment Materials
Copies available from:	NSF International Standards Department 789 Dixboro Road P. O. Box 130140 Ann Arbor, MI 48113-0140 www.nsf.org Phone: (734) 769-8010 FAX: (734) 769-0109

OPTICAL SOCIETY OF AMERICA (OSA)

Journal of Optical Society of America, Volume 58 (1968)

Copies available from:	Optical Society of America 2010 Massachusetts Ave., N.W. Washington, DC 20036-1012 www.osa.org Phone: 202.223.8130 FAX: 202.223.1096

SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS (SMPTE)

SMPTE 170M-2004	Television - Composite Analog Video Signal - NTSC for Studio Applications
Copies available from:	Society of Motion Picture and Television Engineers White Plains Plaza 445 Hamilton Ave, Ste 601 White Plains, NY 10106-1827 www.smpte.org Phone: (914) 761-1100 FAX: (914) 206-4216

UNDERWRITERS LABS (UL)

ANSI/UL 448-2013	Standard for Safety Centrifugal Stationary Pumps for Fire Protection Service
UL 588	Standard for Seasonal and Holiday Decorative Products
UL 1598	Standards for Luminaires
UL 1995	Heating and Cooling Equipment
Copies available from:	Underwriters Laboratories, Inc. 333 Pfingsten Road Northbrook, IL 60062-2096 www.ul.com Phone: (847) 272-8800 FAX: (847) 272-8129

UNIFIED EXTENSIBLE FIRMWARE INTERFACE FORUM

Advanced Configuration and Power Interface Specification Revision 5.0 (December 6, 2011) and Advanced Configuration and Power Interface Specification Revision 5.0 Errata A (November 13, 2013)	Advanced Configuration and Power Interface Specification
Copies available from:	UEFI Forum Administration 3855 SW 153rd Drive Beaverton, OR 97003 www.uefi.org Phone: +1 503-619-0864 FAX: +1 503-644-6708

Note: Authority cited: Sections 25213, 25218(e), 25402(a)-25402(c) and 25960, Public Resources Code; and sections 16, 26 and 30, Governor's Exec. Order No. B-29-15 (April 1, 2015). Reference: Sections 25216.5(d), 25402(a)-25402(c), 25402.5.4 and 25960, Public Resources Code; and section 16, Governor's Exec. Order No. B-29-15 (April 1, 2015).

§ 1602.1. Rules Of Construction.

(a) Where the context requires, the singular includes the plural and the plural includes the singular.

(b) The use of "and" in a conjunctive provision means that all elements in the provision must be complied with, or must exist in order to make the provision applicable. "Or" (rather than "and/or") is used where compliance with one or more elements suffices, or where the existence of one or more elements makes the provision applicable.

(c) "Shall" is mandatory and "may" is permissive.

Note: Authority cited: Sections 25213, 25218(e), 25402(a)-(c) and 25960, Public Resources Code. Reference: Sections 25216.5(d), 25402(a)-(c) and 25960, Public Resources Code.

§ 1603. Testing: All Appliances.

(a) Testing Requirements.

The manufacturer shall cause the testing of units of each basic model of appliance within the scope of section 1601 of this Article, using the applicable test method listed in section 1604 of this Article unless otherwise provided in subsection (c) of this section. If the manufacturer of the basic model does not participate in an approved industry certification program for the basic model, or does not apply such a program to test all units under this Article, the testing shall be at a laboratory that the Executive Director determines, under section 1608(i) of this Article, that:

(1) has conducted tests using the applicable test method within the previous 12 months;

(2) agrees to and does interpret and apply the applicable test method set forth in section 1604 of this Article precisely as written;

(A) for laboratories testing federally regulated appliances and equipment, agrees to and does interpret and apply any applicable provisions of 10 C.F.R. section 429, subpart C;

(3) has, and keeps properly calibrated and maintained, all equipment, material, and facilities necessary to apply the applicable test method precisely as written;

(4) agrees to and does maintain copies of all test reports, and provides any such report to the Executive Director on request, for all basic models that are still in commercial production; and

(5) agrees to and does allow the Executive Director to witness any test of such an appliance on request, up to once per calendar year for each basic model.

(b) Approved Industry Certification Programs.

(1) An "approved industry certification program" is an appliance certification program that has successfully applied through MAEDbS to become an approved industry certification program; and that the Executive Director has determined:

(A) is operated by an appliance manufacturer trade association or other entity approved as an approved industry certification program by the Executive Director;

(B) is accredited by ANSI or ISO, or has received from a nationally recognized entity an approval that provides substantially similar guarantees of substantive and procedural reliability and accuracy; and

(C) provides:

1. an internet-accessible listing of appropriate energy performance information that is updated at least every 6 months;

2. testing of appliances according to applicable test methods and accurate reporting of test results;

3. listings that:

a. include no appliance not meeting an applicable federal standard,

b. clearly and distinctly indicate which appliances meet the applicable federal standard but do not meet an applicable California standard, which shall be identified, and

c. where there is no federal standard, clearly and distinctly indicate which appliances do not meet an applicable California standard which shall be identified; and

(D verification of manufacturer-submitted data;

(E) an appropriate procedure for program participants to challenge listed information; and

(F) compatibility with the MAEDbS described in section 1606(c) of this Article.

(2) The Executive Director shall, within 30 days of receiving a written request by an entity administering an appliance certification program, determine whether the program meets the criteria in section 1603(b)(1) of this Article. If the Executive Director determines that the program meets all the criteria, he or she shall designate the program as an approved industry certification program. The Executive Director shall periodically publish a list of all approved industry certification programs.

(3) The Executive Director shall, within 30 days of receiving a written request, determine whether an approved industry certification program continues to meet the criteria in section 1603(b)(1) of this Article. If the Executive Director determines that the program meets all the criteria, the program shall remain on the list of approved industry certification programs published under section 1603(b)(2) of this Article. If the Executive Director determines that the program does not meet all the criteria, he or she shall remove the program from the list, and the program shall no longer be an approved industry certification program.

(c) Appliances for Which There Is a Waiver of the Federal Test Method.

(1) If, for a basic model of an appliance, there is in effect a waiver from an otherwise-applicable federal test method granted pursuant to 10 C.F.R. section 430.27, and the waiver is conditioned on adherence to an alternate test procedure pursuant to 10 C.F.R. section 430.27(l), then the manufacturer shall cause the testing of units of the basic model using such alternate test procedure, and such alternate test procedure shall be deemed to be the test method listed or specified in section 1604 of this Article for the basic model.

(2) If, for a basic model of an appliance, there is in effect a waiver from an otherwise-applicable federal test method granted pursuant to 10 C.F.R. section 430.27, and the waiver is not conditioned on adherence to an alternate test procedure pursuant to 10 C.F.R. section 430.27(l), then the manufacturer shall petition the Executive Director to specify:

(A) an alternative assessment method; if the Executive Director so specifies, then the manufacturer shall cause the testing of units of the basic model of appliance using the alternative assessment method, and such alternative assessment method shall be deemed to be the test method listed or specified in section 1604 of this Article for the basic model; or

(B) that there is no alternative assessment method, because either the basic model has physical characteristics that prevent testing or there is no method that can produce reasonably accurate results; if the Executive Director so specifies, then the manufacturer need not test units of the basic model and it shall be deemed that there is no test method listed or specified in section 1604 of this Article for the basic model.

The manufacturer of the basic model shall obtain a specification from the Executive Director before submitting a statement for the basic model pursuant to section 1606(a) of this Article.

The following document is incorporated by reference in section 1603.

Number	*Title*
FEDERAL STATUTES AND REGULATIONS	
C.F.R., Title 10, part 429, subpart C	
Copies available from:	Superintendent of Documents U.S. Government Printing Office Washington, DC 20402 www.ecfr.gov

Note: Authority cited: Sections 25213, 25218(e), 25402(a)-(c), and 25960, Public Resources Code. Reference: Sections 25216.5(d), 25402(a)-(c), and 25960, Public Resources Code.

§ 1604. Test Methods for Specific Appliances.

(a) Refrigerators, Refrigerator-Freezers, and Freezers.

(1) The test methods for non-commercial refrigerators designed for the refrigerated storage of food at temperatures above 32°F and below 39°F, configured for general refrigerated food storage, non-commercial refrigerator-freezers, miscellaneous refrigeration products, and non-commercial freezers are 10 C.F.R. sections 430.23 (a) (Appendix A to subpart B of part 430) and 430.23(b) (Appendix B to subpart B of part 430).

(2) The test methods for commercial refrigerators, commercial refrigerator-freezers, and commercial freezers are shown in Table A-1.

Table A-1
Commercial Refrigerator, Refrigerator-Freezer, and Freezer Test Methods

Appliance	*Test Method*
Automatic commercial ice makers	10 C.F.R. sections 431.133 and 431.134
Refrigerated bottled or canned beverage vending machines	10 C.F.R. sections 431.293 and 431.294
Refrigerated buffet and preparation tables	ANSI/ASTM F2143-01
Other commercial refrigerators, refrigerator-freezers, and freezers, with doors	10 C.F.R. sections 431.63 and 431.64
Other commercial refrigerators, refrigerator-freezers, and freezers, without doors	10 C.F.R. sections 431.63 and 431.64
Walk-in coolers and walk-in freezers	10 C.F.R. sections 431.303 and 431.304

(3) When a refrigerator, refrigerator-freezer, or freezer can be operated using either alternating current electricity or one or more other sources of primary power, the test shall be performed using alternating current electricity only.

(4) The test method for water dispensers is EPA Energy Star Program Requirements for Bottled Water Coolers (2004).

EXCEPTION to Section 1604(a)(4): Water dispensers equipped with an integral, automatic timer. Water dispensers equipped with an integral, automatic timer shall not be tested using Section 4)D, “Timer Usage,” of the referenced test method.

(b) Room Air Conditioners, Room Air-Conditioning Heat Pumps, Packaged Terminal Air Conditioners, and Packaged Terminal Heat Pumps. The test methods for room air conditioners, room air-conditioning heat pumps, packaged terminal air conditioners, and packaged terminal heat pumps are shown in Table B-1.

Table B-1
Room Air Conditioner, Room Air-Conditioning Heat Pump, Packaged Terminal Air Conditioner, and Packaged Terminal Heat Pump Test Methods

Appliance	*Test Method*
Room air conditioners and room air-conditioning heat pumps	10 C.F.R. section 430.23(f) (Appendix F to subpart B of part 430)
Packaged terminal air conditioners and packaged terminal heat pumps	10 C.F.R. sections 431.95 and 431.96

(c) Central Air Conditioners, Air Filters, and Heat Pump Water-Heating Packages.

(1) The test methods for central air conditioners are shown in Table C-1.

(2) For each basic model of central air conditioner and heat pump, test the individual model and combination as required in 10 C.F.R. section 429.16(b)(2).

Table C-1
Central Air Conditioner Test Methods

Appliance	*Test Method*
Computer Room Air Conditioners	
evaporatively cooled	ANSI/ASHRAE 127-2001
air-cooled, glycol-cooled, water-cooled	10 C.F.R. sections 431.95 and 431.96
Other electric-powered unitary air-conditioners and electric-powered heat pumps	
air-cooled air conditioners and air-source heat pumps	
< 65,000 Btu/hr, single-phase	10 C.F.R. section 430.23(m) (Appendix M to subpart B of part 430)
< 65,000 Btu/hr, three-phase	10 C.F.R. sections 431.95 and 431.96
≥ 65,000 and < 760,000 Btu/hr	10 C.F.R. sections 431.95 and 431.96
evaporatively cooled air conditioners	
< 240,000 Btu/hr	10 C.F.R. sections 431.95 and 431.96
water-cooled air conditioners and water- source heat pumps	
< 240,000 Btu/hr	10 C.F.R. sections 431.95 and 431.96
ground water-source heat pumps	ARI/ISO-13256-1:1998
ground-source closed-loop heat pumps	ARI/ISO-13256-1:1998
Variable Refrigerant Flow Multi-split Systems	10 C.F.R. sections 431.95 and 431.96
Single Package Vertical Air Conditioners and Single Package Vertical Heat Pumps	10 C.F.R. sections 431.95 and 431.96
Gas-fired air conditioners and gas-fired heat pumps	ANSI Z21.40.4-1996 as modified by CEC, Efficiency Calculation Method for Gas-Fired Heat Pumps as a New Compliance Option (1996)

(3) Air Filters. The test methods for air filters are shown in Table C-2

Table C-2
Air Filter Test Methods

Appliance	***Test Method***
Air Filter Pressure Drop	AHRI 680-2009* or ASHRAE 52.2-2012
Minimum Efficiency Reporting Value (MERV)	ASHRAE 52.2-2012
Air Filter Particle Size Efficiency	AHRI 680-2009* or ASHRAE 52.2-2012
Dust Holding Capacity	AHRI 680-2009* or ASHRAE 52.2-2012
* MERV not reportable for models being tested to AHRI 680-2009 only.	

Manufacturers shall test small, medium, and large size filters for each grade.

(4) Heat Pump Water Heating Packages. Heat pump water heating packages shall be tested using ANSI/AHRI 550-590 (I-P) 2011. The heating capacity tests shall be conducted at

ambient temperature of each 47° F and 17° F and a leaving water temperature of 120° F. If the package is capable of cooling, it shall be tested at an ambient temperature of 95° F and a leaving water temperature of 44° F.

(d) Portable Air Conditioners, Evaporative Coolers, Ceiling Fans, Ceiling Fan Light Kits, Whole House Fans, Residential Exhaust Fans, Dehumidifiers, and Residential Furnace Fans.

The test methods for portable air conditioners, evaporative coolers, ceiling fans, ceiling fan light kits, whole house fans, residential exhaust fans, dehumidifiers, and residential furnace fans are shown in Table D-3.

Table D-3
Portable Air Conditioner, Ceiling Fan, Ceiling Fan Light Kit, Evaporative Cooler, Whole House Fan, Residential Exhaust Fan, Dehumidifier, and Residential Furnace Fan Test Methods

Appliance	***Test Method***
Spot Air Conditioners	ANSI/ASHRAE 128-2001
Single-Duct and Dual-Duct Portable Air Conditioners	10 C.F.R. section 430.23(dd) (Appendix CC to subpart B of part 430)
Ceiling Fans	10 C.F.R. section 430.23(w) (Appendix U to subpart B of part 430)
Ceiling Fan Light Kits	10 C.F.R. section 430.23(x) (Appendix V to subpart B of part 430)
Evaporative Coolers	ANSI/ASHRAE 133-2008 for packaged direct evaporative coolers and packaged indirect/direct evaporative coolers; ANSI/ASHRAE 143-2007 for packaged indirect evaporative coolers
Whole House Fans	HVI-Publication 916 29 September 2015 HVI Airflow Test Procedure, as specified in section 5.2. Use setups for whole house comfort ventilators.
Dehumidifiers	10 C.F.R. section 430.23(z) (Appendix X to subpart B of part 430, active mode portion only)
Portable Dehumidifiers and Whole-Home Dehumidifiers Manufactured On or After June 13, 2019	10 C.F.R. section 430.23(z) (Appendix X1 to subpart B of part 430)
Residential Exhaust Fans	HVI-Publication 916 29 September 2015 HVI Airflow Test Procedure, as specified in section 5.2.
Residential Furnace Fans	10 C.F.R. section 430.23(cc) (Appendix AA to subpart B of part 430)

(e) Gas and Oil Space Heaters and Electric Residential Boilers.

(1) Gas Space Heaters and Oil Space Heaters. The test methods for gas space heaters and oil space heaters are shown in Table E-1.

(2) Natural Gas and LPG Space Heaters. Gas space heaters intended for use either with natural gas or LPG may be tested with natural gas and the results applied to both fuel types.

(3) Combination Space-Heating and Water-Heating Appliances. The test method for combination space-heating and water-heating appliances is ANSI/ASHRAE 124-2007.

Table E-1
Gas and Oil Space Heater Test Methods

Appliance	***Test Method***
Central furnaces	
< 225,000 Btu/hr, single phase	10 C.F.R. section 430.23(n) (Appendix N to subpart B of part 430)
< 225,000 Btu/hr, three phase	10 C.F.R. section 430.23(n) (Appendix N to subpart B of part 430) or 10 C.F.R. sections 431.75 and 431.76 (at manufacturer's option)
≥ 225,000 Btu/hr	10 C.F.R. sections 431.75 and 431.76
Gas infrared heaters	
patio heaters	ASTM F2644-07
high-intensity infrared heaters	ANSI Z83.19-2001
low-intensity infrared heaters	ANSI Z83.20-2001
Gas duct furnaces	ANSI Z83.8-2002
Boilers	
< 300,000 Btu/hr	10 C.F.R. section 430.23(n) (Appendix N to subpart B of part 430)
≥ 300,000 Btu/hr	10 C.F.R. sections 431.85 and 431.86
Wall furnaces, floor furnaces, and room heaters	10 C.F.R. section 430.23(o) (Appendix O to subpart B of part 430)

(f) Water Heaters.

(1) Residential Water Heaters: The test method for residential water heaters is 10 C.F.R. section 430.23(e) (Appendix E to subpart B of part 430).

(2) Water heaters that are Regulated Under subpart G of 10 C.F.R. part 431.

The test methods for water heaters that are regulated under subpart G of 10 C.F.R. part 431 are found at 10 C.F.R. sections 431.105 and 431.106.

(3) Dual-Fuel Models. Water heaters intended for use either with natural gas or LPG may be tested with natural gas and the results applied to both fuel types.

(g) Pool Heaters, Portable Electric Spas, Pumps, Residential Pool Pump and Motor Combinations, and Replacement Residential Pool Pump Motors.

(1) Test Methods for Pool Heaters.

The test method for fossil fuel-fired pool heaters, electric resistance pool heaters, and electric heat pump pool heaters is 10 C.F.R. section 430.23(p) (Appendix P to subpart B of part 430).

(2) Test Method for Portable Electric Spas.

(A) The test method for portable electric spas manufactured on or after January 1, 2006 and before June 1, 2019, is as follows:

1. Minimum continuous testing time shall be 72 hours.

2. The spa shall be filled with water to the halfway point between the bottom of the skimmer basket opening and the top of the spa. If there is no skimmer basket, the spa shall be filled with water to six inches below the top of the spa.

3. The water temperature shall be 102°F, ± 2°F for the duration of the test.

4. The ambient air temperature shall be 60°F, ± 3°F for the duration of the test.

5. The standard cover that comes with the unit shall be used during the test.

6. The test shall start when the water temperature has been at 102°F, ± 2°F for at least four hours.

7. Record the total energy use for the period of test, starting at the end of the first heating cycle after the stabilization period specified in section 1604(g)(2)(A)6., of this Article, and finishing at the end of the first heating cycle after 72 hours has elapsed.

8. The unit shall remain covered and in the default operation mode during the test. Energy-conserving circulation functions, if present, must not be enabled if not appropriate for continuous, long-term use. Ancillary equipment including, but not limited to lights, audio systems, and water treatment devices, shall remain connected to the mains but may be turned off during the test if their controls are user accessible.

9. The measured standby power shall be normalized to a temperature difference of 37°F using the equation,

$$P_{norm} = P_{meas} \frac{\Delta T_{ideal}}{\Delta T_{meas}}$$

Where:

P_{meas} = measured standby power during test (E/t)
ΔT_{ideal} = 37°F
$\Delta T_{meas} = T_{water\ avg} - T_{air\ avg}$
$T_{water\ avg}$ = Average water temperature during test
$T_{air\ avg}$ = Average air temperature during test.

10. Data reported shall include: spa identification (make, model, S/N, specifications); volume of the unit in gallons; supply voltage; minimum, maximum, and average water temperatures during test; minimum, maximum, and average ambient air temperatures during test; date of test; length of test (t, in hours); total energy use during the test (E, in Wh); and normalized standby power (P_{norm}, in watts).

(B) The test method for portable electric spas manufactured on or after June 1, 2019, is ANSI/APSP/ICC-14 2014, excluding section 8.2, and with the following modifications:

1. All portable electric spas shall be filled with water to the halfway point between the bottom of the skimmer opening and the top of the skimmer opening. In the absence of a skimmer, the fill volume is six inches below the overflow level of the spa.

2. For standard spas and inflatable spas, the test shall start when the water temperature has been at 102^0F, ±2^oF for at least four hours. The water temperature of the spa shall be a minimum 100^0F for the duration of the test.

3. For exercise spas, the test shall start when the water temperature has been at 87^0F, ±2^oF for at least four hours. The water temperature of the spa shall be a minimum 85^0F for the duration of the test. If the exercise spa is capable of maintaining a minimum water temperature of 100^0F for the duration of the test, the exercise spa shall be tested in accordance with section 1604(g)(2)(B)2.

4. For combination spas, the standard spa portion shall be tested in accordance with section 1604(g)(2)(B)2., and the exercise spa portion shall be tested in accordance with section 1604(g)(2)(B)3. Record the total energy use for each spa portion separately as described in Section 5.6.5 of ANSI/APSP/ICC-14 2014, while both spa portions are powered on for the duration of the test.

(C) Test lab report requirements for portable electric spas manufactured on or after June 1, 2019. In addition to the requirements of section 5 of ANSI/APSP/ICC-14 2014 and section 1606 Table X, test lab reports shall include: date of test; minimum and maximum water temperatures settings; copy of the label(s) per section 1607(d)(14)(B); minimum, maximum, and average water temperatures during test; minimum, maximum, and average ambient air temperatures during test; length of test (in hours); record and plot ambient air temperature (in degrees Fahrenheit), water temperature (in degrees Fahrenheit), current (in amps), and voltage (in volts) at a maximum interval of five minutes during test; and, for inflatable spas, a list of the accessories that were tested with the spa.

(3) Test Method for Residential Pool Pumps.

The test method for residential pool pumps is as follows:

(A) Reported motor efficiency shall be verifiable by test method IEEE 114-2001.

(B) ANSI/HI 1.6-2000 shall be used for the measurement of pump efficiency.

(C) Three curves shall be calculated:

Curve A: $H = 0.0167 \times F^2$

Curve B: $H = 0.050 \times F^2$

Curve C: $H = 0.0082 \times F^2$

Where:

H is the total system head in feet of water.

F is the flow rate in gallons per minute (gpm).

(D) For each curve (A, B, or C), the pump head shall be adjusted until the flow and head lie on the curve. The following shall be tested and reported (i) for each curve for single-speed pumps or (ii) for each curve at both highest and lowest speeds for two-, multi-, or variable-speed pumps:

1. Motor nominal speed (RPM)

2. Flow (gallons per minute)

3. Power (watts and volt amps)

4. Energy Factor (gallons per watt hour)

Where the Energy Factor (EF) is calculated as:

EF = Flow (gpm) * 60 / Power (watts)

(4) Test Method for Pumps

The test method for pumps is 10 C.F.R. section 431.464 (Appendix A to subpart Y of part 431).

(h) Plumbing Fittings.

(1) Commercial Pre-Rinse Spray Valves. The test method for commercial pre-rinse spray valves is 10 C.F.R. sections 431.263 and 431.264.

(2) Showerheads. The test methods for showerheads are:

(A) Maximum flow rate test. The test method for determining maximum flow rate of a showerhead is 10 C.F.R. Section 430.23(t) (Appendix S to subpart B of part 430).

(B) Minimum flow rate test. The test method for determining minimum flow rate of a showerhead is ASME A112.18.1-2012 / CSA B125.1-2012, Section 5.12.

(C) Showerheads with multiple nozzles. Showerheads with multiple nozzles shall be tested with all nozzles in use at the same time.

(1) Other Plumbing Fittings. The test method for other plumbing fittings is 10 C.F.R. Section 430.23(s) (Appendix S to subpart B of part 430).

(4) Showerhead-tub spout diverter combinations. Showerhead-tub spout diverter combinations shall have both the showerhead and tub spout diverter tested individually.

(5) Tub Spout Diverters. A tub spout diverter manufactured on or after June 1, 2016 shall be tested in accordance with ASME A112.18.1-2012/CSA B125.1-12, Section 5.3.6 for the rate of leakage conducted prior to life cycle testing and Section 5.6.1.5 for the rate of leakage conducted after life cycling testing.

(i) Plumbing Fixtures.

The test methods for plumbing fixtures are:

(1) Water Closets. The test method for testing gallons per flush of water closets is 10 C.F.R. Section 430.23 (u) (Appendix T to subpart B of part 430). See section 1604(i)(3) of this Article for the required waste extraction test.

(2) Urinals. The test method for testing gallons per flush of urinals is 10 C.F.R. Section 430.23(v) (Appendix T to subpart B of part 430).

(3) Waste Extraction Test for Water Closets. The waste extraction test method for water closets is Section 7.10 of ASME A112.19.2/CSA B45.1-2013.

(j) Fluorescent Lamp Ballasts and Deep-Dimming Fluorescent Lamp Ballasts.

(1) Fluorescent Lamp Ballasts Except Deep-Dimming Fluorescent Lamp Ballasts. The test method for fluorescent lamp ballasts is 10 C.F.R. section 430.23(q) (Appendix Q to subpart B of part 430).

(2) Deep-Dimming Fluorescent Lamp Ballasts. Deep-dimming fluorescent lamp ballasts shall be tested using 10 C.F.R. Section 430.23(q) (Appendix Q to subpart B of part 430) (referred to as the "federal test method" in the following subsections), modified as follows:

(A) The control signal to the ballast shall indicate full output. The arc power of all connected lamps shall be measured and then added together. This result will be referred to as "maximum arc power." An appropriate lighting control shall be selected to achieve the control signal used to determine the maximum arc power and to tune the ballast to the appropriate dimming levels. The controls shall be selected by using the following methodology:

1. If the ballast manufacturer also manufactures a lighting control designed to be operated with the ballast, the test shall be conducted using the ballast manufacturer's lighting control. Or;

2. If the manufacturer does not manufacture a compatible lighting control, but recommends the use of specific manufacturer and/or model of lighting control, such as in its product documentation, the test shall be conducted using a lighting control from the list of manufacturer recommended lighting controls. Or;

3. If the manufacturer does not manufacture a compatible lighting control, and does not recommend any specific lighting controls, the lab technician shall select a lighting control that sufficiently controls the ballast to complete the test.

4. If multiple control options are available, use the lighting control that is capable of using all of the features of a ballast and with the minimum amount of other features. The lighting control manufacturer and model number shall appear on the test report.

(B) Three sets of input power and arc power shall be measured using the federal test procedure with the total arc power tuned to 100, 80, and 50 percent of the measured maximum arc power. If a step dimming ballast or a ballast that can only turn connected lamps on or off has dimming steps other than 80 and 50 percent, then the closest step that is between 90 and including 65 percent shall be used for 80 percent testing, and the closest step that is between 65

and including 35 percent shall be used for 50 percent testing. If no step exists in the above prescribed ranges, then no result shall be recorded for that percentage dimming test. The resulting input powers shall be recorded and referred to as P_{100}, P_{80}, and P_{50}. The resulting arc powers shall be recorded and referred to as AP_{100}, AP_{80}, and AP_{50}. BLE_{100} shall be calculated as AP_{100}/P_{100}, BLE_{80} as AP_{80}/P_{80}, and BLE_{50} as AP_{50}/P_{50}. The measurement of power factor shall be taken during the measurement of maximum arc power and reported.

(C) Standby mode test: the ballast shall also be tested with a control input set to the lowest dimming state possible up to and including no light output. The input power to the ballast shall be measured and recorded as P_0. The measurement must be taken 90 minutes after entering this state. P_0 shall be recorded as the mean value of measurements taken at 5 second intervals over a 5-minute period.

(D) The weighted ballast luminous efficacy shall be calculated using the following formula and table:

$$Weighted\ ballast\ luminous\ efficacy = BLE_{100} \times w_{100} + BLE_{80} \times w_{80} + BLE_{50} \times w_{50}$$

Where the time values (w_{100}, w_{80}, w_{50}) are taken from the appropriate table below:

Table J-1
Percentage Time of Operation Table

Time Variable	***Measurements taken***			
	P_{80}, P_{50}	*P_{80}, No P_{50}*	*No P_{80}, P_{50}*	*No P_{80}, No P_{50}*
w_{100}	0.2	0.35	0.45	1
w_{80}	0.5	0.65	0	0
w_{50}	0.3	0	0.55	0

(k) Lamps.

(1) The test method for federally regulated general service fluorescent lamps, federally regulated general service incandescent lamps, and federally regulated incandescent reflector lamps is 10 C.F.R. section 430.23(r) (Appendix R to subpart B of part 430).

(2) The test method for state-regulated small diameter directional lamps that use incandescent filament technology is 10 C.F.R. section 430.23(r) (Appendix R to subpart B of part 430).

(3) The test method for medium base compact fluorescent lamps is 10 C.F.R. section 430.23(y) (Appendix W to subpart B of part 430).

(4) The test methods for LED state-regulated small diameter directional lamps and state-regulated LED lamps are shown in Table K-1. For certification, compliance, and enforcement purposes, the sampling provisions in 10 C.F.R. section 429.56 shall be used.

Table K-1
Test Methods for State-Regulated LED Lamps and
LED State-Regulated Small Diameter Directional Lamps

Measurement	***Test Procedure***	***Required or Optional***
Input power, Lumen output, LPW, Correlated Color Temperature, Duv, Color Rendering Index, Power Factor	IES LM-79 (2008) with additional requirements provided in 10 C.F.R. section 430.23(ee) (Appendix BB to subpart B of part 430).	Required
Lumen Maintenance and Time to Failure	IES LM-84 (2014) and TM-28 (2014) with additional requirements provided in 10 C.F.R. section 430.23(ee) (Appendix BB to subpart B of part 430).	Required
Standby Power	10 C.F.R. section 430.23(ee) (Appendix BB to subpart B of part 430).	Required
Flicker	Title 24, part 6, Joint Appendix 10 (2015), tested at both 100% and 20% output. Lamps with a percent amplitude modulation (percent flicker) less than 30 percent at frequencies less than 200Hz shall report "yes" for "reduced flicker operation" described in section 1606 of this Article, otherwise report "no."	Optional
Lumen Maintenance, Rated Life, and Survival Rate for Compliance with Title 24 Joint Appendix 8 and minimum dimming level	Title 24, part 6, Joint Appendix 8 (2015).	Optional
Audible Noise	ENERGY STAR Recommended Practice – Noise (2013) with the following modification: measurements shall be taken at 100 percent output as well as at 20 percent output if dimmable.	Optional

*Required test procedures must be conducted per section 1603(a) of this Article for each basic model of lamp. Optional test procedures are conditionally required depending on manufacturer claims of performance as described in sections 1607(d)(12) of this Article and 1606 Table X of this Article.

(5) There are no federally prescribed test methods for federally regulated organic light-emitting diode (OLED) lamps; federally regulated candelabra base incandescent lamps, or federally regulated intermediate base incandescent lamps.

(l) Emergency Lighting and Self-Contained Lighting Controls.

(1) Emergency Lighting. The test method for illuminated exit signs is 10 C.F.R. section 431.204(b).

(2) Self-Contained Lighting Controls. There is no test method for self-contained lighting controls.

(m) Traffic Signal Modules.

Traffic Signal Modules. The test method~~s~~ for traffic signal modules for vehicle or pedestrian control is 10 C.F.R. section 431.224.

(n) Luminaires and Torchieres.

(1) Torchieres.

There is no test method for torchieres.

(2) Metal Halide Luminaires.

The test method for metal halide luminaires is ANSI C82.6-2005. Ballasts may be tested separately, outside the luminaire. A sample of at least five ballasts shall be tested for each lamp wattage for which the luminaire and ballasts are rated. The average of these tests shall be used for certification and compliance purposes.

Ballasts efficiency for High Intensity Discharge (HID) luminaire means the efficiency of a lamp and ballast combination expressed as a percentage and calculated by Efficiency = P_{out} / P_{in}, as measured. P_{out} is the measured operating lamp wattage and P_{in} is the measured operating input wattage.

The lamp, and the capacitor when it is provided, is to constitute a nominal system in accordance with ANSI C78.43-2004. P_{in} and P_{out} are to be measured after lamps have been stabilized according to Section 4.4 of ANSI C82.6-2005 using a wattmeter with accuracy specified in Section 4.5 of ANSI C82.6-2005 for ballasts with a frequency of 60 Hz and shall have a basic accuracy of ± 0.5 percent at the higher of (a.) three times the output operating frequency of the ballast, or (b.) 2 kHz for ballast with a frequency greater than 60 Hz.

(3) Under-Cabinet Luminaires.

The test method for under-cabinet luminaires is 10 C.F.R. 430.23(q) (Appendix Q to subpart B of part 430 (2015)).

(4) Portable Luminaires.

(A) The test methods for LED luminaires using LED lamps are shown in Table K-1 of section 1604(k)(4) of this Article.

(B) The test methods for LED luminaires using LED light engines are California Joint Appendix JA8 – 2008, “Testing of Light Emitting Diode Light Sources,” or IES LM-79-08, “Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products,” at manufacturer’s option.

(o) Dishwashers.

The test method for dishwashers is 10 C.F.R. section 430.23(c) (Appendix C1 to subpart B of part 430).

(p) Clothes Washers.

(1) Clothes Washers That Are Consumer Products. The test method for clothes washers that are consumer products is 10 C.F.R. section 430.23(j) (Appendix J2 to subpart B of part 430).

(2) Commercial Clothes Washers.

(A) Testing Before January 1, 2018. The test method for commercial clothes washers before January 1, 2018 is 10 C.F.R. section 430.23(j) (Appendix J1 to subpart B of part 430).

(B) Testing On or After January 1, 2018. The test method for commercial clothes washers on or after January 1, 2018 is 10 C.F.R. section 430.23(j) (Appendix J2 to subpart B of part 430).

(q) Clothes Dryers.

The test methods for clothes dryers are 10 C.F.R. section 430.23(d) (Appendix D1 or Appendix D2 to subpart B of part 430). Manufacturers must use a single appendix for all representations, including certifications of compliance, and may not use appendix D1 for certain representations and appendix D2 for other representations.

(r) Cooking Products and Food Service Equipment.

The test methods for cooking products that are consumer products, commercial hot food holding cabinets, commercial convection ovens and commercial range tops are shown in Table R-1.

Table R-1
Cooking Product and Food Service Equipment Test Methods

Appliance	***Test Method***
Cooking products that are consumer products	10 C.F.R. section 430.23(i) (Appendix I to subpart B of part 430)
Combined cooking products	10 C.F.R. section 430.23(i) (Appendix I to Subpart B of part 430)
Commercial hot food holding cabinets	ANSI/ASTM F2140-01 (Test for idle energy rate-dry test) and US EPA's Energy Star Guidelines, "Measuring Interior Volume" (Test for interior volume)
Commercial convection ovens	ANSI/ASTM F1496-99 (Test for energy input rate and idle energy consumption only)
Commercial range tops	ANSI/ASTM F1521-96 (Test for cooking energy efficiency only)

(s) Electric Motors and Compressors.

(1) Electric Motors, Except Small Electric Motors. The test methods for electric motors are 10 C.F.R. sections 431.15, 431.16, 431.17, 431.18, 431.19, 431.20, and 431.21, including but

not limited to provisions on testing laboratories, recognition of accreditation bodies, and recognition of certification programs.

(2) Small Electric Motors. The test methods for small electric motors are 10 C.F.R. sections 431.443, 431.444 and 431.445, including but not limited to provisions on alternative efficiency determination method (AEDM) and additional testing requirements concerning selection of models to be tested if an AEDM is to be applied.

(3) Compressors. The test method for compressors is 10 C.F.R. section 431.344 (Appendix A to Subpart T of 10 C.F.R., § 431).

(t) Distribution Transformers.

The test method for distribution transformers is 10 C.F.R. section 431.193 (Appendix A of subpart K).

(u) External Power Supplies.

(1) The test method for federally regulated direct operation external power supplies and federally regulated indirect operation Class A external power supplies is 10 C.F.R. section 430.23(bb) (Appendix Z to subpart B of part 430).

(2) The test method for state-regulated external power supplies is US EPA "Test Method for Calculating the Energy Efficiency of Single-Voltage External AC-DC and AC-AC Power Supplies" dated August 11, 2004, except that the test voltage specified in Section 4(d) of the test method shall be only 115 volts, 60 Hz.

(v) Computers, Computer Monitors, Televisions, Signage Displays, and Consumer Audio and Video Equipment.

(1) Consumer Audio and Video Equipment. The test method for standby-passive mode consumer audio and video equipment is International Electrotechnical Commission (IEC) 62087:2002(E) – "Methods of Measurement for the Power Consumption of Audio, Video, and Related Equipment."

(2) Televisions and Signage Displays. The test method for televisions manufactured on or after April 24, 2014 is 10 C.F.R. section 430.23(h) (Appendix H to subpart B of part 430). The test method for signage displays manufactured on or after April 24, 2014, is 10 C.F.R. Section 430.23(h) (Appendix H to subpart B of part 430) (January 1, 2014).

(3) Computer Monitors. The test method for computer monitors is the ENERGY STAR Program Requirements for Displays, Final Test Method (September 2015), with the following modifications:

(A) On mode measurements shall be made using the IEC 62087: 2011 and computer monitor sleep mode and computer monitor off mode measurements shall be made using the IEC 62301:2011, as specified in the ENERGY STAR Program Requirements for Displays, Final Test Method (September 2015).

(B) A computer monitor shall be tested as required by the test procedure for each of the following:

1. On mode power draw.

2. Computer monitor sleep mode power draw.

3. Computer monitor off mode power draw.

(C) Product features and functions not specifically addressed by the test method shall be turned off or disconnected. Built-in speakers shall be muted or turned down to their lowest volume setting for the on mode power draw test.

(D) Before starting the test procedure for measuring on mode power draw, any feature unrelated to the display of images (for example USB hubs, webcams, speakers, LAN connections, and SD card readers) shall be turned off.

(4) Computers. The test method for computers is the ENERGY STAR Program Requirements for Computers, Final Test Method (Rev. March-2016), with the following modifications:

(A) Settings regarding hard-disk spinning shall not be altered from the default as-shipped settings.

(B) The total annual energy consumption of a computer shall be calculated using Equation 1 in Section 3 of the ENERGY STAR Program Requirements for Computers, Eligibility Criteria Version 6.1 (Rev. March-2016).

1. Computers manufactured before July 1, 2021 shall use the “conventional” mode weighting of Table 3 for a desktop computer, a mobile gaming system, a small-scale server, a high expandability computer, or a thin client, or Table 4 for a notebook computer, a mobile workstation, or a portable all-in-one computer, contained within Section 3 of the ENERGY STAR Program Requirements for Computers, Final Test Method (Rev. March-2016) , unless they meet either the criteria in Section 1604(v)(4)(B)2. of this Article to use “full capability” mode weighting, or the criteria in Section 1604(v)(4)(B)3. of this Article to use “remote wake.”

2. In order to use the “full capability” mode weighting a computer shall have the following features enabled as shipped:

a. Maintain Ethernet (IEEE 802.3-2015) or wireless (IEEE 802.11-2012) network addresses and network connection capability while in ACPI System Level S3 Sleep Mode or an alternative to ACPI S3 sleep mode;

b. Resume from ACPI System Level S3 Sleep Mode or an alternative to ACPI S3 sleep mode upon request from outside the local network; and

c. Support advertising host services and network name while in ACPI System Level S3 Sleep Mode or an alternative to ACPI S3 sleep mode.

3. In order to use the “remote wake” mode weighting a computer shall have the following features enabled as shipped:

a. Maintain Ethernet (IEEE 802.3-2015) or wireless (IEEE 802.11-2012) network addresses and network connection capability while in ACPI System Level S3 Sleep Mode or an alternative to ACPI S3 sleep mode; and

b. Resume from ACPI System Level S3 Sleep Mode or an alternative to ACPI S3 sleep mode upon request from outside the local network.

4. Computers manufactured on or after July 1, 2021, shall use the "conventional" mode weighting of Table 3 for a desktop computer, a mobile gaming system, a small-scale server, a high-expandability computer, or a thin client, or Table 4 for a notebook computer, a mobile workstation, or a portable all-in-one computer, contained within Section 3 of the ENERGY STAR Program Requirements for Computers, Eligibility Criteria Version 6.1 (Rev. March-2016).

5. Workstations shall calculate total annual energy consumption using the weighting of Table 8, contained within Section 3 of the ENERGY STAR Program Requirements for Computers, Eligibility Criteria Version 6.1 (Rev. March-2016).

(C) The expandability score calculation shall be included in test reports and shall be calculated as follows:

1. Identify the score for each individual interface type as determined by Table V-1 and then multiply by the total number of occurrences of that particular interface type present in the system as sold or offered for sale. Finally, sum the subtotals for all interface types.

2. Each instance of an interface may only receive one score.

3. Add 100 to the score.

Table V-1
Interface Types and Scores for Expandability Score Calculation

Interface Type	***Interface Score***
USB 2.0 or less	5
USB 3.0 or 3.1 Gen 1	10
USB 3.1 Gen 2	15
USB ports or Thunderbolt 3.0 or greater that can provide 100 or more watts of power	100
USB ports or Thunderbolt 3.0 or greater that can provide from 60 or more to less than 100 watts of power	60
USB ports or Thunderbolt 3.0 or greater that can provide from 30 or more to less than 60 watts of power	30
Thunderbolt 3.0 or greater or USB ports that are not otherwise addressed in Table V-1 and that cannot provide 30 or more watts of power	20
Unconnected USB 2.0 motherboard header	10 per header
Unconnected USB 3.0 or 3.1 Gen 1 motherboard header	20 per header
PCI slot other than PCIe x16 (only count mechanical slots)	25
PCIe x16 or higher (only count mechanical slots)	75
Thunderbolt 2.0 or less	20
M.2 (except key M)	10
IDE, SATA, eSATA	15
M.2 key M, SATA express, U.2	25
Integrated liquid cooling	50
Either: 1) CPU and motherboard support for 4 or more channels of system memory and at least 8 GB of installed and compatible system memory; or 2) At least 8 GB of system memory installed on a 256 bit or greater memory interface.	100

(D) A computer monitor used in the testing of desktop computers shall have a native resolution of at least 1920x1080 pixels and use progressive scanning. The computer operating system shall be set to operate at a minimum of 1920x1080 pixels and progressive scanning. If

multiple display connections are available on the computer, choose the correct connection using the following criteria:

1. If hybrid graphics is available, choose the port that enables hybrid graphics.

2. If a discrete GPU is installed, choose a connection to the first GPU, except for where it conflicts with subdivision (D)(1) of this section.

3. If no discrete GPU is installed, choose a connection to a port integrated into the motherboard.

4. If there are multiple connector ports to choose from pursuant to subdivisions (v)(5)(D)1. through (v)(5)(D)3. of this section, connect the display to a port using the first available from the port types listed below:

a. Display Port

b. HDMI

c. DVI

d. VGA

e. Other

(E) An integrated desktop computer, mobile gaming system, or notebook computer shall be tested using the integrated display's native resolution.

(F) High expandability computers shall be configured for the test in a manner identical to desktop computers. Mobile gaming systems and mobile workstations shall be configured for the test in a manner identical to notebook computers.

(G) For purposes of providing data as required in section 1606 of this Article, desktop computers, thin clients, mobile gaming systems, notebook computers, and portable all-in-ones shall be tested by selecting the configuration that has the greatest allowable energy consumption as provided for in section 1605.3(v)(5) of this Article. If multiple configurations exist that meet this criteria, select the configuration that will yield the greatest annual energy consumption as measured by the test procedure.

(H) The computer sleep mode power measurement shall be tested in a modified manner from the test procedure described in IEC 62623:2012. Instead of measuring power after manually entering sleep mode, the power measurement shall begin no sooner than 30 minutes and no later than 31 minutes of user inactivity on the unit under test. This measurement shall be performed after the long-idle test without altering the unit under test.

(I) The power factor of a computer power supply and compliance with Table V-9 in Section 1605.3(v)(6) of this Article shall both be determined by the following test procedure: Generalized Test Protocol for Calculating the Energy Efficiency of Internal Ac-Dc and Dc-Dc Power Supplies Revision 6.7 (March 1, 2014). In addition the median power factor during short-idle measurements shall be recorded in the test report.

(w) Battery Chargers and Battery Charger Systems.

(1) Test Method for Federally Regulated Battery Chargers and Federally Regulated Uninterruptible Power Supplies. The test method for federally regulated battery chargers and federally regulated uninterruptible power supplies is 10 C.F.R. section 430.23(aa) (Appendix Y to subpart B of part 430).

(2) Test Method for Small Battery Charger Systems. The test method for small battery charger systems that are not federally regulated battery chargers, federally regulated uninterruptible power supplies, battery backups, or non-federally regulated uninterruptible power supplies is 10 C.F.R. section 430.23(aa) (Appendix Y to subpart B of part 430) (Jan. 1, 2017).

(A) Multi-port battery charger systems shall be tested for 24-hour efficiency and maintenance mode with a battery in each port.

(B) For single port small battery charger systems, the highest 24-hour charge and maintenance energy, maintenance mode, and no battery mode results of the test procedure shall be used for purposes of reporting and determining compliance with section 1605.3(w)(2), Table W-3 of this Article.

(C) For purposes of computing the small battery charger system standard, the number of ports included in a multi-port charger system shall be equal to the number ports that are separately controlled. For example a multi-port charger system that charges eight batteries by using two charge controllers that charge four batteries in parallel would use two for “N” as described in section 1605.3(w)(2), Table W-3 of this Article.

(D) Small battery charger systems that are not consumer products may use the battery manufacturer’s recommended end of discharge voltage in place of values in 10 CFR section 420.23(aa) (Appendix Y to subpart B of part 430) (Jan.1, 2017), Table 3.3.2, where the table’s values are not applicable.

(3) Test Method for Battery Backups and Non-Federally Regulated Uninterruptible Power Supplies. The test method for battery backups and non-federally regulated uninterruptible power supplies is 10 C.F.R. section 430.23(aa) (Appendix Y to subpart B of part 430) (Jan. 1, 2016).

(4) Test Method for Large Battery Charger Systems. The test method for large battery charger systems that are not federally regulated battery chargers or federally regulated uninterruptible power supplies is *Energy Efficiency Battery Charger System Test Procedure* Version 2.2 dated November 12, 2008 and published by ECOS and EPRI Solutions with the following modifications:

(A) The test procedure shall be conducted for 100, 80, and 40 percent discharge rates for only one charge profile, battery capacity, and battery voltage. The manufacturer shall test one battery and one charge profile using the following criteria:

1. the charge profile with the largest charge return factor;

2. the smallest rated battery capacity; and

3. the lowest voltage battery available at that rated capacity.

(B) The battery manufacturer's recommended end of discharge voltage may be used in place of values in the test method part 1, section III.F, Table D where the table's values are not applicable.

The following documents are incorporated by reference in section 1604.

CALIFORNIA ENERGY COMMISSION TEST METHODS

CEC/Gas-Fired Heat Pumps	Efficiency Calculation Method for Gas-Fired Heat Pumps as a Exceptional Method (1996) New Compliance Option (1996)
California Title 24, part 6, Joint Appendix 8 JA-8 - 2015	Qualification Requirements for High Efficacy Light Sources
California Title 24, part 6, Joint Appendix 10 JA-10 - 2015	Test Method for Measuring Flicker of Lighting Systems and Reporting Requirements
California Joint Appendix JA8 – 2008	Testing of Light Emitting Diode Light Sources
Copies available from:	California Energy Commission Energy Hotline 1516 Ninth Street, MS-25 Sacramento, California 95814 Phone: (916) 654-5106 FAX: (916) 654-4304

FEDERAL TEST METHODS

C.F.R., Title 10, section 429.56
C.F.R., Title 10, section 430.23, and 10 C.F.R. Appendixes A, B, C1, D1, D2, E, F, H, I, J1, J2, M, N, O, P, Q, R, S, T, U, V, W, X, S1, Y, Z, AA, BB, and CC of subpart B of part 430
C.F.R., Title 10, sections 431.15, 431.16, 431.17, 431.18, 431.19, 431.20, and 431.21
C.F.R., Title 10, sections 431.63 and 431.64
C.F.R., Title 10, sections 431.75 and 431.76
C.F.R., Title 10, sections 431.85 and 431.86
C.F.R., Title 10, sections 431.95 and 431.96
C.F.R., Title 10, sections 431.105 and 431.106
C.F.R., Title 10, sections 431.133 and 431.134
C.F.R., Title 10, section 431.193
C.F.R., Title 10, section 431.204(b)
C.F.R., Title 10, section 431.224
C.F.R., Title 10, sections 431.263 and 431.264
C.F.R., Title 10, sections 431.293 and 431.294
C.F.R., Title 10, sections 431.303 and 431.304
C.F.R., Title 10, sections 431.344
C.F.R., Title 10, sections 431.443, 431.444, and 431.445
C.F.R., Title 10, section 431.464
C.F.R., Title 10, section 431 subpart G

Copies available from:	Superintendent of Documents U.S. Government Printing Office Washington, DC 20402 www.ecfr.gov

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA)

	ENERGY STAR® Program Requirements for Bottled Water Coolers (2004)
	ENERGY STAR® Program Requirements for Computers, subparts Eligibility Criteria Version 6.1 (Rev. March- 2016) and Final Test Method (Rev. March-2016)
	ENERGY STAR® Program Requirements for Displays, subpart Final Test Method (Rev. Sep-2015)
	EPA "Test Method for Calculating the Energy Efficiency of Single-Voltage External AC-DC and AC-AC Power Supplies" August 11, 2004)
	Energy Star Guidelines, "Measuring Interior Volume" (Test for measuring interior volume of commercial hot food holding cabinets)
ENERGY STAR Recommended Practice – Noise (2013)	EPA ENERGY STAR® Program Requirements Product Specification for Lamps (Light Bulbs) Version 1.1 (August 2014)
Copies available from:	US EPA Climate Protection Partnership ENERGY STAR Programs Hotline & Distribution (MS-6202J) 1200 Pennsylvania Ave NW Washington, DC 20460 www.energystar.gov

AIR-CONDITIONING, HEATING, AND REFRIGERATION INSTITUTE (AHRI)

AHRI 680-2009	2009 Standard for Performance Rating of Residential Air Filter Equipment
Copies available from: (AHRI)	Air-Conditioning, Heating, and Refrigeration Institute 2111 Wilson Blvd, Suite 500 Arlington, VA 22201 Phone: (703) 524-8800 FAX: (703) 562-1942 www.ahrinet.org

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI C78.43-2004	American National Standards for Electric Lamps - Single-Ended Metal Halide Lamps
ANSI C82.6-2005	Ballasts for High Intensity Discharge Lamps – Method of Measurement
ANSI Z21.10.3-1998	Standard for Gas Water Heaters, Volume III, Storage Water Heaters with Input Ratings Above 75,000 Btu per hour, Circulating and Instantaneous
ANSI Z21.40.4-1996	Performance Testing and Rating of Gas-Fired Air-Conditioning and Heat Pump Appliances
ANSI Z83.8-2002	Standard for Gas Unit Heaters and Gas-Fired Duct Furnaces
ANSI Z83.19-2001	Standard for Gas-Fired High-Intensity Infrared Heaters
ANSI Z83.20-2001	Standard for Gas-Fired Low-Intensity Infrared Heaters
ANSI/AHRI 550-590 (I-P) 2011	Performance Rating of Water-Chilling and Heat Pump Water-Heating Packages Using the Vapor Compression Cycle

Copies available from:

American National Standards Institute
1819 L Street, NW, 6th Floor
Washington DC 20036
www.ansi.org
Phone: (202) 293-8020
FAX: (202) 293-9287

AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)

ASME A112.19.2/CSA B45.1-2013	Ceramic Plumbing Fixtures
ASME A112.18.1-2012/ CSA B125.1-2012	Plumbing Supply Fittings

Copies available from:

ASME HEADQUARTERS
TWO PARK AVENUE
NEW YORK, NY 10016-5990
WWW.ASME.ORG
PHONE: 800-843-2763 (U.S./CANADA)
001-800-843-2763 (MEXICO)
973-882-1170 (OUTSIDE NORTH AMERICA)
EMAIL: CUSTOMERCARE@ASME.ORG

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ANSI/ASTM F1496-99	Standard Test Method for Performance of Convection Ovens
ANSI/ASTM F1521-96	Standard Test Methods for Performance of Range Tops
ANSI/ASTM F2140-01 Holding	Standard Test Method for the Performance of Hot Food Cabinets
ANSI/ASTM F2143-01 Buffet and	Standard Test Method for the Performance of Refrigerated Preparation Tables
ASTM F2644-07	Standard Test Method for Performance of Commercial Patio Heaters

Copies available from:	ASTM 100 Barr Harbor Drive West Conshohocken, PA 19428-2959 www.astm.org Phone: (610) 832-9585 FAX: (610) 832-9555

AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS (ASHRAE)

ASHRAE 52.2-2012	Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size
ANSI/ASHRAE 118.2-1993	Method of Testing for Rating Residential Water Heaters
ANSI/ASHRAE 124-2007	Method of Testing for Rating Combination Space-Heating and Water-Heating Appliances
ANSI/ASHRAE 127-2001	Method of Testing for Rating Computer and Data Processing Room Unitary Air-Conditioners
ANSI/ASHRAE 128-2001	Method of Rating Spot Unitary Air Conditioners
ANSI/ASHRAE 133-2008	Method of Testing Direct Evaporative Air Coolers
ANSI/ASHRAE 143-2007	Method of Test for Rating Indirect Evaporative Coolers
ANSI/ASHRAE 146-1998	Method of Testing and Rating Pool Heaters
Copies available from:	American Society of Heating, Refrigerating, and Air-Conditioning Engineers 1791 Tullie Circle N.E. Atlanta, GA 30329 www.ashrae.org Phone: (800) 527-4723 (U.S./Canada) or (404) 636-8400 FAX: (404) 321-5478

THE ASSOCIATION OF POOL AND SPA PROFESSIONALS (APSP)

ANSI/APSP/ICC-14 2014	American National Standard for Portable Electric Spa Energy Efficiency
Copies available from:	The Association of Pool and Spa Professionals 2111 Eisenhower Avenue, Suite 500 Alexandria, VA 22314-4695 www.apsp.org Phone: (703) 838-0083

CANADIAN STANDARDS ASSOCIATION (CSA)

CSA B45.1-2013	Ceramic Plumbing Fixtures
Copies available from:	Canadian Standards Association 178 Rexdale Blvd. Toronto, Ontario, Canada, M9W 1R3 Phone: (416) 747-4044 http:/shop.csa.ca/

ECOS CONSULTING

Energy Efficiency Battery Charger System Test Procedure
Version 2.2 dated November 12, 2008

Copies available from: Ecos Consulting
801 Florida Road, # 11
Durango, CO 81301
www.efficientproducts.org
Phone: (970) 259-6801
FAX: (970) 259-8585

ECOVA

Generalized Test Protocol for Calculating the Energy Efficiency of Internal Ac-Dc and Dc-Dc Power Supplies
Revision 6.7 (March 1, 2014)

Copies available from: Plug Load Solutions by Ecova
www.plugloadsolutions.com
Phone: (971) 201-4180

HOME VENTILATING INSTITUTE (HVI)

HVI-Publication 916 — 29 September 2015 HVI
Air-flow Test Procedure

Copies available from: Home Ventilating Institute
1000 N. Rand Rd., Suite 214
Wauconda, IL 60084
www.hvi.org
Phone: (847) 526-2010
FAX: (847) 526-3993

HYDRAULIC INSTITUTE (HI)

ANSI/HI 1.6-2000 — Centrifugal Pump Tests

Copies available from: Hydraulic Institute
6 Campus Dr., First Floor North
Parsippany, NJ 07054-4405
www.pumps.org
www.hydraulicinstitute.com
Phone: (973) 267-9700
FAX: (973) 267-9055

ILLUMINATING ENGINGEERING SOCIETY (IES)

IES LM-79-08 — Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

IES LM-84-14	Measuring Luminous Flux and Color Maintenance of LED Lamps, Light Engines, and Luminaires.
IES TM-28 (2014)	Projecting Long-Term Luminous Flux Maintenance of LED Lamps and Luminaires
Copies available from:	Illuminating Engineering Society 120 Wall Street, 17th Floor New York, NY 10005-4001 www.ies.org Phone: (212) 248-5000 FAX: (212) 248-5017/18

INTERNATIONAL ELECTROTECHNICAL COMMISSION (IEC)

IEC 62087 (2002) (E)	Methods of Measurement for the Power Consumption of Audio, Video, and Related Equipment.
IEC 62087:2008(E), Edition 2.0	Methods of Measurement for the Power Consumption of Audio, Video, and Related Equipment
IEC 62087: 2011	Methods of measurement for the power consumption of audio, video and related equipment
IEC 62301:2011	Household electrical appliances – Measurement of standby power
IEC 62623:2012	Desktop and notebook computers – Measurement of energy consumption
Copies available from:	IEC Central Office 3, rue de Varembé P.O. Box 131 CH – 1211 GENEVA 20 Switzerland Phone: +41 22 919 02 11

INTERNATIONAL ORGANIZATION FOR STANDARDS (ISO)

ISO 13256-1-1998	Water-source heat pumps-Testing and rating for performance-part 1: Water-to-air and brine-to-air heat pumps
Copies available from:	ISO Central Secretariat International Organization for Standardization (ISO) 1, rue de Varembé, Case postale 56 CH-1211 Geneva 20, Switzerland www.iso.org Phone: +41 22 749 01 11 FAX: +41 22 733 34 30

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)

IEEE 114-2001	Standard Test Procedures for Single-Phase Induction Motors
IEEE 802.3-2015	IEEE Standard for Ethernet
IEEE 802.11-2012	IEEE Standard for Information technology--Telecommunications and information exchange between systems Local and metropolitan area networks--Specific requirements Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications
Copies available from:	Institute of Electrical and Electronics Engineers Publications Office 10662 Los Vaqueros Circle PO Box 3014 Los Alamitos, CA 90720-1264 www.ieee.org Phone: (714) 821-8380 Fax: (714) 821-4010

UNIFIED EXTENSIBLE FIRMWARE INTERFACE FORUM

Advanced Configuration and Power Interface Specification Revision 5.0 (December 6, 2011) and Advanced Configuration and Power Interface Specification Revision 5.0 Errata A (November 13, 2013)	Advanced Configuration and Power Interface Specification
Copies available from:	UEFI Forum Administration 3855 SW 153rd Drive Beaverton, OR 97003 USA www.uefi.org Phone: +1 503-619-0864 FAX: +1 503-644-6708

Note: Authority cited: Sections 25213, 25218(e), 25402(a)-25402(c) and 25960, Public Resources Code; and sections 16, 26 and 30, Governor's Exec. Order No. B-29-15 (April 1, 2015). Reference: Sections 25216.5(d), 25402(a)-25402(c) and 25960, Public Resources Code; and section 16, Governor's Exec. Order No. B-29-15 (April 1, 2015).

§ 1605. Energy Performance, Energy Design, Water Performance, and Water Design Standards: In General.

(a) California Standards that are the Same as Federal Standards. Section 1605.1 of this Article contains standards that are the same as the federal standards contained in, or adopted in regulations pursuant to, NAECA or EPAct.

(1) The standards in section 1605.1 of this Article are applicable as federal law to the sale of appliances in California and the rest of the United States. The standards apply to federally regulated consumer products and federally regulated commercial and industrial equipment.

Under 42 U.S.C. sections 6302(a)(5), 6316(a), and 6316(b)(1), which are enforced by the U.S. Department of Energy, no appliance listed in this section may be sold in the United States unless the appliance complies with the applicable standard listed in this Section as determined using the applicable test method listed in section 1604 of this Article, and with all other requirements of federal law.

(2) Each standard in section 1605.1 of this Article is also adopted in this Article as California state law applicable to the sale and offering for sale of appliances in California, if the corresponding federal standard is repealed or becomes inoperable, inapplicable, or otherwise invalid as federal law. Immediately upon the effect of such federal repeal or invalidity the standard becomes effective as California state law, and no appliance previously covered by the federal standard shall be sold or offered for sale in the state unless the appliance complies with the state standard as determined using the applicable test method listed in section 1604 of this Article, and with all other requirements of this Article. Provided, however, that if a waiver from federal preemption is required for a standard in section 1605.1 of this Article, the state standard takes effect as California state law only on the effective date of a U.S. Department of Energy waiver from federal preemption.

(b) California Standards for Federally Regulated Appliances. Section 1605.2 of this Article contains standards that are exclusively California standards. They are applicable as state law to the sale and offering for sale of appliances in California. Because the standards apply to federally regulated appliances, they take effect as state law only on

(1) the effective date of a U.S. Department of Energy waiver from federal preemption; or

(2) one year after removal of federal preemption by action such as a change in federal law, but no earlier than July 1, 2004. When an applicable standard in section 1605.2 of this Article takes effect as state law, no appliance may be sold or offered for sale in California unless the appliance complies with the standard as determined using the applicable test method in section 1604 of this Article (and with all the other applicable requirements of this Article).

(c) California Standards Applicable to Sale and Installation. Section 1605.3 of this Article contains standards that are exclusively California standards. They are applicable as state law to the sale or offering for sale of appliances in California. No appliance may be sold or offered for sale in California unless the appliance complies with the applicable standard in section 1605.3 of this Article as determined using the applicable test method listed in section 1604 of this Article (and with all the other requirements of this Article).

(d) Multiple Standards. If more than one standard is shown for an appliance in section 1605.1, 1605.2, or 1605.3 of this Article, the appliance shall meet all the standards shown.

(e) Multiple Test Methods. If more than one test method is shown as applicable to a standard in section 1605.1, 1605.2, or 1605.3 of this Article, the appliance shall comply with the standard when tested with each and every individual specified test method, except for those appliances where the appropriate provision in section 1604 of this Article specifically allows a choice of test method at the manufacturer's option.

(f) Multiple Functions. If an appliance can serve more than one function, such as space-heating and service water-heating then:

(1) if the primary function is served by a federally regulated appliance, the primary function appliance shall meet the applicable standard in section 1605.1 of this Article; and

(2) if the primary function is served by an appliance that is not a federally regulated appliance, the primary function appliance shall meet the applicable standard in section 1605.2 or section 1605.3 of this Article; and the secondary function appliances shall meet the applicable standards in sections 1605.1, 1605.2, and 1605.3 of this Article. Water heaters that are federally-regulated appliances, and that are contained in combination space-heating and water-heating appliances that are federally regulated appliances, are required only to meet the standard for the applicable type of water heater, and are not required to meet any standard for space heaters.

Note: Authority cited: Sections 25213, 25218(e), 25402(a)-(c) and 25960, Public Resources Code. Reference: Sections 25216.5(d), 25402(a)-(c) and 25960, Public Resources Code.

§ 1605.1. Federal and State Standards for Federally-Regulated Appliances.

(a) Refrigerators, Refrigerator-Freezers, and Freezers.

(1) Non-Commercial Refrigerators, Non-Commercial Refrigerator-Freezers, and Non-Commercial Freezers.

(A) The energy consumption of non-commercial refrigerators designed for the refrigerated storage of food at temperatures above 32˚F and below 39˚F, configured for general refrigerated food storage, non-commercial refrigerator-freezers, and non-commercial freezers, including drawer units, and kitchen units that are manufactured on or after the effective dates shown shall be not greater than the applicable values shown in Table A-2.

Table A-2
Standards for Non-Commercial Refrigerators, Refrigerator-Freezers, and Freezers

Product class	***Maximum Energy Use (kWh/year)* Equation****
1. Refrigerator-freezers and refrigerators other than all-refrigerators with manual defrost	7.99AV + 225.0 0.282av + 225.0
1A. All-refrigerators—manual defrost	6.79AV + 193.6 0.240av + 193.6
2. Refrigerator-freezers—partial automatic defrost	7.99AV + 225.0 0.282av + 225.0
3. Refrigerator-freezers—automatic defrost with top-mounted freezer without an automatic icemaker	8.07AV + 233.7 0.285av + 233.7
3-BI. Built-in refrigerator-freezer—automatic defrost with top-mounted freezer without an automatic icemaker	9.15AV + 264.9 0.323av + 264.9
3I. Refrigerator-freezers—automatic defrost with top-mounted freezer with an automatic icemaker without through-the-door ice service	8.07AV + 317.7 0.285av + 317.7
3I-BI. Built-in refrigerator-freezers—automatic defrost with top-mounted freezer with an automatic icemaker without through-the-door ice service	9.15AV + 348.9 0.323av + 348.9
3A. All-refrigerators—automatic defrost	7.07AV + 201.6 0.250av + 201.6
3A-BI. Built-in All-refrigerators—automatic defrost	8.02AV + 228.5 0.283av + 228.5
4. Refrigerator-freezers—automatic defrost with side-mounted freezer without an automatic icemaker	8.51AV + 297.8 0.301av + 297.8
4-BI. Built-In Refrigerator-freezers—automatic defrost with side-mounted freezer without an automatic icemaker	10.22AV + 357.4 0.361av + 357.4
4I. Refrigerator-freezers—automatic defrost with side-mounted freezer with an automatic icemaker without through-the-door ice service	8.51AV + 381.8 0.301av + 381.8
4I-BI. Built-In Refrigerator-freezers—automatic defrost with side-mounted freezer with an automatic icemaker without through-the-door ice service	10.22AV + 441.4 0.361av + 441.4
5. Refrigerator-freezers—automatic defrost with bottom-mounted freezer without an automatic icemaker	8.85AV + 317.0 0.312av + 317.0
5-BI. Built-In Refrigerator-freezers—automatic defrost with bottom-mounted freezer without an automatic icemaker	9.40AV + 336.9 0.332av + 336.9
5I. Refrigerator-freezers—automatic defrost with bottom-mounted freezer with an automatic icemaker without through-the-door ice service	8.85AV + 401.0 0.312av + 401.0
5I-BI. Built-In Refrigerator-freezers—automatic defrost with bottom-mounted freezer with an automatic icemaker without through-the-door ice service	9.40AV + 420.9 0.332av + 420.9
5A. Refrigerator-freezer—automatic defrost with bottom-mounted freezer with through-the-door ice service	9.25AV + 475.4 0.327av + 475.4
5A-BI. Built-in refrigerator-freezer—automatic defrost with bottom-mounted freezer with through-the-door ice service	9.83AV + 499.9 0.347av + 499.9
6. Refrigerator-freezers—automatic defrost with top-mounted freezer with through-the-door ice service	8.40AV + 385.4 0.297av + 385.4
7. Refrigerator-freezers—automatic defrost with side-mounted freezer with through-the-door ice service	8.54AV + 432.8 0.302av + 432.8
7-BI. Built-In Refrigerator-freezers—automatic defrost with side-mounted freezer with through-the-door ice service	10.25AV + 502.6 0.362av + 502.6
8. Upright freezers with manual defrost	5.57AV + 193.7 0.197av + 193.7
9. Upright freezers with automatic defrost without an automatic icemaker	8.62AV + 228.3 0.305av + 228.3
9I. Upright freezers with automatic defrost with an automatic icemaker	8.62AV + 312.3 0.348av + 260.9
9-BI. Built-In Upright freezers with automatic defrost without an automatic icemaker	9.86AV + 260.9 0.348av + 260.9
9I-BI. Built-in upright freezers with automatic defrost with an automatic icemaker	9.86AV + 344.9 0.348av + 344.9
10. Chest freezers and all other freezers except compact freezers	7.29AV + 107.8 0.257av + 107.8
10A. Chest freezers with automatic defrost	10.24AV + 148.1 0.362av + 148.1
11. Compact refrigerator-freezers and refrigerators other than all-refrigerators with manual defrost	9.03AV + 252.3 0.319av + 252.3
11A. Compact all-refrigerators—manual defrost	7.84AV + 219.1 0.277av + 219.1

Table A-2 cont'd

Product class	*Maximum Energy Use (kWh/year)* Equation**
12. Compact refrigerator-freezers—partial automatic defrost	5.91AV + 335.8 0.209av + 335.8
13. Compact refrigerator-freezers—automatic defrost with top-mounted freezer	11.80AV + 339.2 0.417av + 339.2
13I. Compact refrigerator-freezers—automatic defrost with top-mounted freezer with an automatic icemaker	11.80AV + 423.2 0.417av + 423.2
13A. Compact all-refrigerators—automatic defrost	9.17AV + 259.3 0.324av + 259.3
14. Compact refrigerator-freezers—automatic defrost with side-mounted freezer	6.82AV + 456.9 0.241av + 456.9
14I. Compact refrigerator-freezers—automatic defrost with side-mounted freezer with an automatic icemaker	6.82AV + 540.9 0.241av + 540.9
15. Compact refrigerator-freezers—automatic defrost with bottom-mounted freezer	11.80AV + 339.2 0.417av + 339.2
15I. Compact refrigerator-freezers—automatic defrost with bottom-mounted freezer with an automatic icemaker	11.80AV + 423.2 0.417av + 423.2
16. Compact upright freezers with manual defrost	8.65AV + 225.7 0.306av + 225.7
17. Compact upright freezers with automatic defrost	10.17AV + 351.9 0.359av + 351.9
18. Compact chest freezers	9.25AV + 136.8 0.327av + 136.8

*AV = Adjusted total volume, expressed in ft^3, as determined in 10 C.F.R. sections 430.23(a) (Appendix A to subpart B of part 430) and 430.23(b) (Appendix B to subpart B of part 430)
*av = Adjusted total volume, expressed in Liters.

(B) Miscellaneous refrigeration products. The energy standards as determined by the equations shown in Table A-3 shall be rounded off to the nearest kWh per year. If the equation calculation is halfway between the nearest two kWh per year values, the standard shall be rounded up to the higher of these values.

1. Coolers manufactured on or after October 28, 2019 shall have Annual Energy Use (AEU) not more than the applicable values shown in Table A-3.

Table A-3
Standards for Miscellaneous Refrigeration Products

Product Class	***Maximum Annual Energy Use (AEU) (kWh/year)***
Coolers	
Built-in Compact Cooler	7.88AV + 155.8
Built-in Cooler	
Freestanding Compact Cooler	
Freestanding Cooler	
Combination Coolers	
Combination Cooler with all-refrigerator—automatic defrost	4.57AV + 130.4
Built-in combination cooler with all-refrigerator—automatic defrost	5.19AV + 147.8
Combination Cooler with upright freezers with automatic defrost without an automatic icemaker	5.58AV + 147.7
Built-in combination cooler with upright freezer with automatic defrost without an automatic icemaker	6.38AV + 168.8
Combination Cooler with upright freezer with automatic defrost with an automatic icemaker	5.58AV + 231.7
Built-in combination cooler with upright freezer with automatic defrost with an automatic icemaker	6.38AV + 252.8
Compact combination cooler with all-refrigerator—automatic defrost	5.93AV + 193.7
Built-in compact combination cooler with all-refrigerator—automatic defrost	6.52AV + 213.1
AV = Adjusted total volume, expressed in ft^3, as calculated according to 10 C.F.R. Appendix A to subpart B of part 430.	

(2) Commercial Refrigerators, Commercial Refrigerator-Freezers, and Commercial Freezers.

(A) The daily energy consumption (in kilowatt hours per day) of each commercial refrigerator and commercial freezer manufactured on or after March 27, 2017 shall be not greater than the applicable values shown in Tables A-4, A-5, and A-6.

Table A-4
Standards for Commercial Refrigerators and Freezers
with a Self-Contained Condensing Unit That are Not Commercial Hybrid Units

Equipment Category	***Condensing Unit Configuration***	***Equipment Family***	***Rating Temperature (°F)***	***Operating Temperature (°F)***	***Equipment Class Designation****	***Maximum Daily Energy Consumption (kWh)***
Refrigerators and Freezers	Self-Contained (SC)	Vertical Closed Transparent (VCT)	38 (M) 0 (L)	≥ 32 < 32	VCT, SC, M VCT, SC, L	0.1 × V + 0.86 0.29 × V + 2.95
		Vertical Closed Solid (VCS)	38 (M) 0 (L)	≥ 32 < 32	VCS, SC, M VCS, SC, L	0.05 × V + 1.36 0.22 × V + 1.38
		Horizontal Closed Transparent (HCT)	38 (M) 0 (L)	≥ 32 < 32	HCT, SC, M HCT, SC, L	0.06 × V + 0.37 0.08 × V + 1.23
		Horizontal Closed Solid (HCS)	38 (M) 0 (L)	≥ 32 < 32	HCS, SC, M HCS, SC, L	0.05 × V + 0.91 0.06 × V + 1.12
		Service Over Counter (SOC)	38 (M) 0 (L)	≥ 32 < 32	SOC, SC, M SOC, SC, L	0.51 × TDA +1 1.10 × TDA + 2.10
Refrigerators with Transparent Doors	Self-Contained (SC)	Pull Down (PD)	38 (P)	≥ 32	PD, SC, M	0.11 × V + 0.81
Refrigerators and Freezers without doors	Self-Contained (SC)	Vertical Open (VOP)	38 (M) 0 (L)	≥ 32 < 32	VOP, SC, M VOP, SC, L	1.69 × TDA + 4.71 4.25 × TDA +11.82
		Semivertical Open (SVO)	38 (M) 0 (L)	≥ 32 < 32	SVO, SC, M SVO, SC, L	1.70 × TDA + 4.59 4.26 × TDA +11.51
		Horizontal Open (HZO)	38 (M) 0 (L)	≥ 32 < 32	HZO, SC, M HZO, SC, L	0.72 × TDA + 5.55 1.90 × TDA + 7.08

* The meaning of the letters in this column is indicated in the *Condensing Unit Configuration*, *Equipment Family*, and *Rating Temperature (°F)* columns to the left.

Table A-5
Standards for Commercial Refrigerators and Freezers
with a Remote Condensing Unit That are Not Commercial Hybrid Units

Equipment Category	*Condensing Unit Configuration*	*Equipment Family*	*Rating Temperature (°F)*	*Operating Temperature (°F)*	*Equipment Class Designation**	*Maximum Daily Energy Consumption (kWh)*
Refrigerators and Freezers	Remote (RC)	Vertical Open (VOP)	38 (M) 0 (L)	≥ 32 < 32	VOP, RC, M VOP, RC, L	0.64 × TDA + 4.07 2.20 × TDA + 6.85
		Semivertical Open (SVO)	38 (M) 0 (L)	≥ 32 < 32	SVO, RC, M SVO, RC, L	0.66 × TDA + 3.18 2.20 × TDA + 6.85
		Horizontal Open (HZO)	38 (M) 0 (L)	≥ 32 < 32	HZO, RC, M HZO, RC, L	0.35 × TDA + 2.88 0.55 × TDA + 6.88
		Vertical Closed Transparent (VCT)	38 (M) 0 (L)	≥ 32 < 32	VCT, RC, M VCT, RC, L	0.15 × TDA + 1.95 0.49 × TDA + 2.61
		Horizontal Closed Transparent (HCT)	38 (M) 0 (L)	≥ 32 < 32	HCT, RC, M HCT, RC, L	0.16 × TDA + 0.13 0.34 × TDA + 0.26
		Vertical Closed Solid (VCS)	38 (M) 0 (L)	≥ 32 < 32	VCS, RC, M VCS, RC, L	0.10 × V + 0.26 0.21 × V + 0.54
		Horizontal Closed Solid (HCS)	38 (M) 0 (L)	≥ 32 < 32	HCS, RC, M HCS, RC, L	0.10 × V + 0.26 0.21 × V + 0.54
		Service Over Counter (SOC)	38 (M) 0 (L)	≥ 32 < 32	SOC, RC, M SOC, RC, L	0.44 × TDA + 0.11 0.93 × TDA + 0.22

* The meaning of the letters in this column is indicated in the *Condensing Unit Configuration*, *Equipment Family*, and *Rating Temperature (°F)* columns to the left.

(B) The daily energy consumption (in kilowatt hours per day) of commercial ice cream freezers that are not commercial hybrid units and that are manufactured on or after March 27, 2017, shall be not greater than the applicable values shown in Table A-6.

Table A-6
Standards for Commercial Ice Cream Freezers That are Not Commercial Hybrid Units and Are Manufactured on or After March 27, 2017

Equipment Family	*Condensing Unit Configuration*	*Equipment Class Designation*[1]	*Maximum Daily Energy Consumption (kWh)*[2]
Vertical Open (VOP)	Remote (RC) Self-Contained (SC)	VOP, RC, I VOP, SC, I	2.79 × TDA + 8.7 5.40 × TDA +15.02
Semivertical Open (SVO)	Remote (RC) Self-Contained (SC)	SVO, RC, I SVO, SC, I	2.79 × TDA + 8.7 5.41 × TDA +14.63
Horizontal Open (HZO)	Remote (RC) Self-Contained (SC)	HZO, RC, I HZO, SC, I	0.70 × TDA + 8.74 2.42 × TDA + 9
Vertical Closed Transparent (VCT)	Remote (RC) Self-Contained (SC)	VCT, RC, I VCT, SC, I	0.58 × TDA + 3.05 0.62 × TDA + 3.29
Horizontal Closed Transparent (HCT)	Remote (RC) Self-Contained (SC)	HCT, RC, I HCT, SC, I	0.40 × TDA + 0.31 0.56 × TDA + 0.43
Vertical Closed Solid (VCS)	Remote (RC) Self-Contained (SC)	VCS, RC, I VCS, SC, I	0.25 × V + 0.63 0.34 × V + 0.88
Horizontal Closed Solid (HCS)	Remote (RC) Self-Contained (SC)	HCS, RC, I HCS, SC, I	0.25 × V + 0.63 0.34 × V + 0.88
Service Over Counter (SOC)	Remote (RC) Self-Contained (SC)	SOC, RC, I SOC, SC, I	1.09 × TDA + 0.26 1.53 × TDA + 0.36

[1] The meaning of the letters in this column is indicated in the *Condensing Unit Configuration*, *Equipment Family*, and *Rating Temperature (°F)* columns to the left, and where "I" represents "ice cream freezer."
[2] Based on Rating Temperature -15°F and Operating Temperature ≤ -5°F.

(C) Commercial refrigeration equipment with two or more compartments.

For commercial refrigeration equipment with two or more compartments, (i.e., hybrid refrigerators, hybrid freezers, hybrid refrigerator-freezers, and non-hybrid refrigerator-freezers), the maximum daily energy consumption (MDEC) for each model shall be the sum of the MDEC values for all of its compartments. For each compartment, measure the TDA or volume of that compartment, and determine the appropriate equipment class based on that compartment's equipment family, condensing unit configuration, and designed operating temperature. The MDEC limit for each compartment shall be the calculated value obtained by entering that compartment's TDA or volume into the standard equation in Table A-4, Table A-5, or Table A-6 of this Article for that compartment's equipment class. Measure the calculated daily energy consumption (CDEC) or total daily energy consumption (TDEC) for the entire case as described in 10 C.F.R. section 431.66(d)(2)(i) through (iii), except that where measurements and calculations reference ARI Standard 1200-2006, AHRI Standard 1200 (I-P)-2010 shall be used.

(D) Wedge Cases. For remote-condensing and self-contained wedge cases, measure the CDEC or TDEC according to the AHRI Standard 1200 (I-P) 2010 test procedure incorporated by reference in 10 C.F.R. section 431.63. For wedge cases in equipment classes for which a volume metric is used, the MDEC shall be the amount derived from the appropriate standards equation in Table A-4, Table A-5, or Table A-6 of this Article. For wedge cases of equipment classes for which a TDA metric is used, the MDEC for each model shall be the amount derived by incorporating into the standards equation in Table A-4, Table A-5, or Table A-6 of this Article for the appropriate equipment class a value for the TDA that is the product of:

1. The vertical height of the air-curtain (or glass in a transparent door), and

2. The largest overall width of the case, when viewed from the front.

EXCEPTION: to Section 1605.1(a)(2) of this Article: The standards shown in section 1605.1(a)(2) of this Article do not apply to salad bars, buffet tables, chef bases, or griddle stands.

(3) Automatic Commercial Ice Makers.

(A) Cube Type. Each cube type automatic commercial ice maker with capacities between 50 and 2500 pounds per 24-hour period and is manufactured on or after January 1, 2010, and before January 28, 2018, shall meet the standard levels set forth in Table A-7.

Table A-7
Standards for Cube Type Automatic Commercial Ice Makers
Manufactured on or After January 1, 2010 and Before January 28, 2018

Equipment Type	*Type of Cooling*	*Harvest Rate (lbs ice/24 hours)*	*Maximum energy use (kWh/100 lbs ice)*	*Maximum condenser water use (gallons/100 lbs ice)*
Ice Making Head	Water	< 500	7.80–0.0055H	200–0.022H.
		≥ 500 and < 1436	5.58–0.0011H	200–0.022H.
		≥ 1436	4.0	200–0.022H.
	Air	< 450	10.26–0.0086H	Not applicable.
		≥ 450	6.89–0.0011H	Not applicable.
Remote Condensing (but not remote compressor)	Air	< 1000	8.85–0.0038H	Not applicable.
		≥ 1000	5.1	Not applicable.
Remote Condensing and Remote Compressor		< 934	8.85–0.0038H	Not applicable.
		≥ 934	5.3	Not applicable.
Self-Contained	Water	< 200	11. 40–0.019H	191–0.0315H.
		≥ 200	7.6	191–0.0315H.
	Air	< 175	18.0–0.0469H	Not applicable.
		≥ 175	9.8	Not applicable.

H Harvest rate in pounds per 24 hours.
*Water use is for the condenser only and does not include potable water used to make ice.

(B) Batch Type. Each batch type automatic commercial ice maker with capacities between 50 and 4000 pounds per 24-hour period and is manufactured on or after January 28, 2018, shall meet the standard levels set forth in Table A-8.

1. Batch type automatic commercial ice makers include cube type automatic commercial ice makers for purposes of the standards for models manufactured on or after January 28, 2018.

Table A-8
Standards for Batch Type Automatic Commercial Ice Makers
Manufactured on or After January 28, 2018

Equipment Type	***Type of Cooling***	***Harvest Rate (lbs ice/24 hours)***	***Maximum energy use (kWh/100 lbs ice)***	***Maximum condenser water use (gallons/100 lbs ice)***
Ice Making Head	Water	≥ 50 and < 300	6.88-0.0055H	200–0.022H.
		≥ 300 and < 850	5.80-0.00191H	200–0.022H.
		≥ 850 and < 1500	4.42-0.00028H	200–0.022H.
		≥ 1500 and < 2500	4.0	200–0.022H.
		≥ 2500 and < 4000	4.0	145
	Air	≥ 50 and < 300	10-0.01233H	Not applicable.
		≥ 300 and < 850	7.05-0.0025H	Not applicable.
		≥ 850 and < 1500	5.55-0.00063H	Not applicable.
		≥ 1500 and < 4000	4.61	Not applicable.
Remote Condensing (but not remote compressor)	Air	≥ 50 and < 988	7.97-0.00342H	Not applicable.
		≥ 988 and < 4000	4.59	Not applicable.
Remote Condensing and Remote Compressor		≥ 50 and < 930	7.97-0.00342H	Not applicable.
		≥ 930 and < 4000	4.79	Not applicable.
Self-Contained	Water	≥ 50 and < 200	9.5-0.019H	191–0.0315H.
		≥ 200 and < 2500	5.7	191–0.0315H.
		≥ 2500 and < 4000	5.7	112
	Air	≥ 50 and < 110	14.79-0.0469H	Not applicable.
		≥ 110 and < 200	12.42-0.02533H	Not applicable.
		≥ 200 and < 4000	7.35	Not applicable.
H Harvest rate in pounds per 24 hours. *Water use is for the condenser only and does not include potable water used to make ice.				

(C) Continuous Type. Each continuous type automatic commercial ice maker with capacities between 50 and 4,000 pounds per 24-hour period manufactured on or after January 28, 2018, shall meet the standard levels set forth in Table A-9.

Table A-9
Standards for Continuous Type Automatic Commercial Ice Makers
Manufactured on or After January 28, 2018

Equipment Type	***Type of Cooling***	***Harvest Rate (lbs ice/24 hours)***	***Maximum energy use (kWh/100 lbs ice)***	***Maximum condenser water use (gallons/100 lbs ice)***
Ice Making Head	Water	≥ 50 and < 801	6.48-0.00267H	180-0.0198H
		≥ 801 and < 2500	4.34	180-0.0198H
		≥ 2500 and < 4000	4.34	130.5
	Air	≥ 50 and < 310	9.19-0.00629H	Not applicable
		≥ 310 and < 820	8.23-0.0032H	Not applicable
		≥ 820 and < 4000	5.61	Not applicable
Remote Condensing (but not Remote Compressor)	Air	≥ 50 and < 800	9.7-0.0058H	Not applicable
		≥ 800 and < 4000	5.06	Not applicable
Remote Condensing and Remote Compressor		≥ 50 and < 800	9.9-0.0058H	Not applicable
		≥ 800 and < 4000	5.26	Not applicable
Self-Contained	Water	≥ 50 and < 900	7.6-0.00302H	153-0.0252H
		≥ 900 and < 2500	4.88	153-0.0252H
		≥ 2500 and < 4000	4.88	90
	Air	≥ 50 and < 200	14.22-0.03H	Not applicable
		≥ 200 and < 700	9.47-0.00624H	Not applicable
		≥ 700 and < 4000	5.1	Not applicable

H Harvest rate in pounds per 24 hours.
*Water use is for the condenser only and does not include potable water used to make ice.

(4) Walk-In Coolers and Walk-In Freezers. Walk-in coolers and walk-in freezers manufactured on or after January 1, 2009 shall:

(A) have automatic door closers that firmly close all walk-in doors that have been closed to within one inch of full closure, except that this subparagraph shall not apply to doors wider than three feet nine inches or taller than seven feet;

(B) have strip doors, spring hinged doors, or other method of minimizing infiltration when doors are open;

(C) contain wall, ceiling, and door insulation of at least R-25 for coolers and R-32 for freezers, except that this subparagraph shall not apply to:

1. glazed portions of doors nor to structural members; and

2. A walk-in cooler or walk-in freezer component if the component manufacturer has demonstrated to the satisfaction of the Secretary in a manner consistent with applicable requirements that the component reduces energy consumption at least as much as if such insulation requirements of section 1605.1(a)(4)(C) of this Article were to apply.

(D) contain floor insulation of at least R-28 for freezers;

(E) for evaporator fan motors of under one horsepower and less than 460 volts, use:

1. electronically commutated motors (brushless direct current motors); or

2. 3-phase motors;

(F) for condenser fan motors of under one horsepower, use:

1. electronically commutated motors (brushless direct current motors);

2. permanent split capacitor-type motors; or

3. 3-phase motors; and

(G) for all interior lights, use light sources with an efficacy of 40 lumens per watt (LPW) or more, including ballast losses (if any), except that light sources with an efficacy of 40 LPW or less, including ballast losses (if any), may be used in conjunction with a timer or device that turns off the lights within 15 minutes of when the walk-in cooler or walk-in freezer is not occupied by people.

(5) Walk-In Coolers with Transparent Reach-in Doors and Walk-In Freezers with Transparent Reach-In Doors. In addition to the design standards in section 1605.1(a)(4) of this Article, walk-in coolers equipped with transparent reach-in doors and walk-in freezers equipped with transparent reach-in doors and manufactured on or after January 1, 2009 shall also meet the following design standards:

(A) Transparent reach-in doors for walk-in freezers and windows in walk-in freezer doors shall be of triple-pane glass with either heat-reflective treated glass or gas fill;

(B) Transparent reach-in doors for walk-in coolers and windows in walk-in cooler doors shall be either:

1. double-pane glass with heat-reflective treated glass and gas fill; or

2. triple-pane glass with either heat-reflective treated glass or gas fill;

(C) If the walk-in cooler or walk-in freezer has an anti-sweat heater:

1. without anti-sweat heat controls, the walk-in cooler or walk-in freezer shall have a total door rail, glass, and frame heater power draw of not more than 7.1 watts per square foot (W/ft^2) of door opening (for freezers) and 3.0 watts per square foot (W/ft^2) of door opening (for coolers);

2. with anti-sweat heat controls, and the total door rail, glass, and frame heater power draw is more than 7.1 watts per square foot (W/ft^2) of door opening (for freezers) and 3.0 watts per square foot (W/ft^2) of door opening (for coolers), the anti-sweat heat controls shall reduce the energy use of the anti-sweat heater in a quantity corresponding to the relative humidity in the air outside the door or to the condensation on the inner glass pane.

(D) Walk-in cooler and freezer display doors. All walk-in cooler and walk-in freezer display doors manufactured on or after June 5, 2017, must not exceed the standards shown in Table A-10:

Table A-10
Standards for Walk-in Cooler and Walk-in Freezer Display Doors
Manufactured On or After June 5, 2017

Class Descriptor	***Class***	***Maximum Daily Energy Consumption (kWh/day)****
Display Door, Medium Temperature	DD.M	$0.04 \times A_{dd} + 0.41$
Display Door, Low Temperature	DD.L	$0.15 \times A_{dd} + 0.29$
*A_{dd} represents the surface area of the display door.		

(E) Walk-in cooler and freezer non-display doors. All walk-in cooler and walk-in freezer non-display doors manufactured on or after June 5, 2017, must not exceed the standards shown in Table A-11:

Table A-11
Standards for Walk-in Cooler and Walk-in Freezer Non-Display Doors
Manufactured On or After June 5, 2017

Class Descriptor	***Class***	***Maximum Daily Energy Consumption (kWh/day)****
Passage Door, Medium Temperature	PD.M	$0.05 \times A_{nd} + 1.7$
Passage Door, Low Temperature	PD.L	$0.14 \times A_{nd} + 4.8$
Freight Door, Medium Temperature	FD.M	$0.04 \times A_{nd} + 1.9$
Freight Door, Low Temperature	FD.L	$0.12 \times A_{nd} + 5.6$
*A_{nd} represents the surface area of the non-display door.		

(F) Walk-in cooler and freezer refrigeration systems. The annual walk-in energy factor of all walk-in cooler and walk-in freezer refrigeration systems manufactured on or after January 1, 2020, must not be less than the values shown in Table A-12:

Table A-12
Standards for Walk-in Cooler and Walk-in Freezer Refrigeration Systems
Manufactured On or After January 1, 2020

Class Descriptor	***Class***	***Minimum AWEF (Btu/W-h)***
Dedicated Condensing, Medium Temperature, Indoor System	DC, M, I	5.61
Dedicated Condensing, Medium Temperature, Outdoor System	DC, M, O	7.60

(6) Refrigerated Canned and Bottled Beverage Vending Machines.

(A) Refrigerated Canned and Bottled Beverage Vending Machines Manufactured Before January 8, 2019. The daily energy consumption (in kilowatt hours per day) when measured at the 75°F ± 2°F and 45 ± 5% RH condition of each refrigerated bottled or canned beverage vending machine manufactured on or after the effective dates shown shall be not greater than the values shown in Table A-13:

Table A-13
Standards for Refrigerated Canned and Bottled Beverage Vending Machines
Manufactured On or After August 31, 2012 and Before January 8, 2019

Equipment Class	***Maximum Daily Energy Consumption (MDEC) (kWh)***
Class A	0.055 × V + 2.56
Class B	0.073 × V + 3.16
Combination vending machines	RESERVED
V = Representative value of refrigerated volume in ft^3.	

(B) Refrigerated Canned and Bottled Beverage Vending Machines Manufactured On or After January 8, 2019. The daily energy consumption (in kilowatt hours per day) of refrigerated canned and bottled beverage vending machines manufactured on or after January 8, 2019 shall not exceed the values shown in Table A-14:

Table A-14
Standards for Refrigerated Canned and Bottled Beverage Vending Machines
Manufactured on or After January 8, 2019

Equipment Class	***Maximum Daily Energy Consumption (MDEC) (kWh)***
Class A	0.052 × V + 2.43
Class B	0.052 × V + 2.20
Combination A	0.086 × V + 2.66
Combination B	0.111 × V + 2.04
V = Representative value of refrigerated volume in ft^3.	

(7) See section 1605.3(a) of this Article for energy efficiency and energy design standards for:

(A) consumer refrigeration coolers manufactured before October 28, 2019;

(B) freezers with volume exceeding 30 ft^3, that do not exceed 39 ft^3; and that are consumer products and

(C) water dispensers.

(b) Room Air Conditioners, Room Air-Conditioning Heat Pumps, Packaged Terminal Air Conditioners, and Packaged Terminal Heat Pumps.

(1) Room Air Conditioners and Room Air-Conditioning Heat Pumps.

The combined EER of room air conditioners and room air-conditioning heat pumps that are manufactured on or after June 1, 2014 shall be not less than the applicable values shown in Table B-2. The EER of room air conditioners and room air-conditioning heat pumps that are labeled for use at more than one voltage shall be not less than the applicable values shown in Table B-2 at each of the labeled voltages.

Table B-2
Standards for Room Air Conditioners and Room Air-Conditioning Heat Pumps
Manufactured On or After June 1, 2014

Appliance	***Louvered Sides***	***Cooling Capacity (Btu/hr)***	***Minimum Combined EER***
Room Air Conditioner	Yes	< 6,000	11.0
Room Air Conditioner	Yes	≥ 6,000 – 7,999	11.0
Room Air Conditioner	Yes	≥ 8,000 – 13,999	10.9
Room Air Conditioner	Yes	≥ 14,000 – 19,999	10.7
Room Air Conditioner	Yes	≥ 20,000 – 27,999	9.4
Room Air Conditioner	Yes	≥ 28,000	9.0
Room Air Conditioner	No	< 6,000	10.0
Room Air Conditioner	No	≥ 6,000 – 7,999	10.0
Room Air Conditioner	No	≥ 8,000 – 10,999	9.6
Room Air Conditioner	No	≥ 11,000 – 13,999	9.5
Room Air Conditioner	No	≥ 14,000 – 19,999	9.3
Room Air Conditioner	No	≥ 20,000	9.4
Room Air Conditioning Heat Pump	Yes	< 20,000	9.8
Room Air Conditioning Heat Pump	Yes	≥ 20,000	9.3
Room Air Conditioning Heat Pump	No	< 14,000	9.3
Room Air Conditioning Heat Pump	No	≥ 14,000	8.7
Casement-Only Room Air Conditioner	Either	Any	9.5
Casement-Slider Room Air Conditioner	Either	Any	10.4

(2) Packaged Terminal Air Conditioners and Packaged Terminal Heat Pumps.

The EER and COP, as applicable, of non-standard size packaged terminal air conditioners and non standard size packaged terminal heat pumps manufactured on or after October 7, 2010, and of standard size packaged terminal air conditioners and standard size packaged terminal heat pumps manufactured on or after January 1, 2017 shall be not less than the applicable values shown in Tables B-3 and B-4.

Table B-3
Standards for Non-Standard Size Packaged Terminal Air Conditioners and Non-Standard Size Packaged Terminal Heat Pumps Manufactured On or After October 7, 2010

Appliance	***Cooling Capacity (Btu/hour)***	***Minimum Efficiency***	
		Minimum EER	***Minimum COP***
Packaged Terminal Air Conditioners	< 7,000	9.4	—
	≥ 7,000 < 15,000	10.9 – (0.213 x Cap[1])	—
	≥ 15,000	7.7	—
Packaged Terminal Heat Pumps	< 7,000	9.3	2.7
	≥ 7,000 < 15,000	10.8 – (0.213 x Cap[1])	2.9 - (0.026 x Cap[1])
	≥ 15,000	7.6	2.5

[1] Cap means cooling capacity in thousand British thermal units per hour (Btu/h) at 95°F outdoor dry-bulb temperature.

Table B-4
Standards for Standard Size Packaged Terminal Air Conditioners and Standard Size Packaged Terminal Heat Pumps Manufactured On or After January 1, 2017

Appliance	***Cooling Capacity (Btu/hour)***	***Minimum Efficiency***	
		Minimum EER	***Minimum COP***
Packaged Terminal Air Conditioners	< 7,000	11.9	—
	≥ 7,000 < 15,000	14.0 – (0.300 x Cap[1])	—
	≥ 15,000	9.5	—
Packaged Terminal Heat Pumps	< 7,000	11.9	3.3
	≥ 7,000 < 15,000	14.0 – (0.300 x Cap[1])	3.7 - (0.052 x Cap[1])
	≥ 15,000	9.5	2.9

[1] Cap means cooling capacity in thousand British thermal units per hour (Btu/h) at 95°F outdoor dry-bulb temperature.

(c) Central Air Conditioners, Air Filters, and Heat Pump Water-Heating Packages.

(1) Central Air Conditioners. The EER, IEER, SEER, COP, HSPF, and SCOP, as applicable, of all central air conditioners, including computer room air conditioners, shall be not less than the applicable values shown in Tables C-3, C-4, C-5, C-6, C-7, C-8, and C-9.

(A) Evaporatively Cooled Computer Room Air Conditioners. See section 1605.3(c) of this Article for energy efficiency standards for evaporatively cooled computer room air conditioners.

Table C-3
Standards for Single Phase Air-Cooled Air Conditioners with Cooling Capacity Less than 65,000 Btu per Hour and Single Phase Air-Source Heat Pumps with Cooling Capacity Less than 65,000 Btu per Hour, Not Subject to EPAct

Product Class	***Minimum Efficiency Effective January 1, 2015***			
	Minimum SEER	***Minimum HSPF***	***Minimum EER***	***Average Off-Mode Power Consumption $P_{w.\ pff}$ (watts)***
Split system air conditioners with rated cooling capacity < 45,000 Btu/hour[1]	14.0	—	12.2	30
Split system air conditioners with rated cooling capacity ≥ 45,000 Btu/hour[1]	14.0	—	11.7	30
Split system heat pumps with rated cooling capacity < 45,000 Btu/hour[1]	14.0	8.2	12.2	33
Split system heat pumps with rated cooling capacity ≥ 45,000 Btu/hour[1]			11.7	33
Single package air conditioners[1]	14.0	—	11.0	30
Single package heat pumps	14.0	8.0	—	33
Space constrained air conditioners – split system	12.0	—	—	30
Space constrained heat pumps – split system	12.0	7.4	—	33
Space constrained air conditioners – single package	12.0	—	—	30
Space constrained heat pumps – single package	12.0	7.4	—	33
Small duct, high velocity air conditioner systems	12.0	—	—	30
Small duct, high velocity heat pump systems	12.0	7.2	—	30

[1] See 10 C.F.R. section 430.32(c) for less stringent federal standards applicable to these units that are manufactured on or after January 1, 2015 and installed in states other than Arizona, California, Nevada, or New Mexico.

EXCEPTION: to Section 1605.1(c)(1) Table C-4 of this Article: The standards shown in Table C-4 do not apply to single package vertical air conditioners and single package vertical heat pumps (see Table C-6), packaged terminal air conditioners and packaged terminal heat pumps (see Tables B-3 and B-4), computer room air conditioners(see Table C-7), variable refrigerant flow multi-split air conditioners and heat pumps (see Table C-8), and double-duct air-cooled commercial package air conditioning and heating equipment (see Table C-9).

Table C-4
Standards for Commercial Package Air-Conditioning and Heating Equipment (Air-Cooled) Air Conditioners and Air-Source Heat Pumps Subject to EPAct
(Standards Effective January 1, 2010 do not apply to Single Package Vertical Air Conditioners)

Equipment Type	***Cooling Capacity***	***Sub-category***	***Heating Type****	***Efficiency Levels***	***Compliance date: Equipment manufactured starting on***
Small Commercial Package Air-Conditioning and Heating Equipment (Air-Cooled, 3-Phase, Split-System)	< 65,000 Btu/h	AC	All	SEER = 13.0	June 16, 2008
		HP		SEER = 14.0 HSPF = 8.2	January 1, 2017
Small Commercial Package Air-Conditioning and Heating Equipment (Air-Cooled, 3-Phase, Single-Package)	< 65,000Btu/h	AC	All	SEER = 14.0	January 1, 2017
		HP		SEER = 14.0 HSPF – 8.0	January 1, 2017
Small Commercial Packaged Air Conditioning and Heating Equipment (Air-Cooled)	≥ 65,000 Btu/h and < 135,000 Btu/h	AC	E-N	EER = 11.2	January 1, 2010[1]
				IEER = 12.9	January 1, 2018[2]
				IEER = 14.8	January 1, 2023
			A-O	EER = 11.0	January 1, 2010[1]
				IEER = 12.7	January 1, 2018[2]
				IEER = 14.6	January 1, 2023
		HP	E-N	EER = 11.0 COP = 3.3	January 1, 2010[1]
				IEER = 12.2 COP = 3.3	January 1, 2018[2]
				IEER = 14.1 COP = 3.4	January 1, 2023
			A-	EER = 10.8 COP = 3.3	January 1, 2010[1]
				IEER = 12.0 COP = 3.3	January 1, 2018[2]
				IEER = 13.9 COP = 3.4	January 1, 2023

Table C-4 (continued)

Equipment Type	*Cooling Capacity*	*Sub-category*	*Heating Type**	*Efficiency Levels*	*Compliance date: Equipment manufactured starting on*
Large Commercial Packaged Air Conditioning and Heating Equipment (Air-Cooled)	≥ 135,000 Btu/h and < 240,000 Btu/h	AC	E-N	EER = 11.0	January 1, 2010[1]
				IEER = 12.4	January 1, 2018[2]
				IEER = 14.2	January 1, 2023
			A-O	EER = 10.8	January 1, 2010[1]
				IEER = 12.2	January 1, 2018[2]
				IEER = 14.0	January 1, 2023
		HP	E-N	EER = 10.6 COP = 3.2	January 1, 2010[1]
				IEER = 11.6 COP = 3.2	January 1, 2018[2]
				IEER = 13.5 COP = 3.3	January 1, 2023
			A-O	EER = 10.4 COP = 3.2	January 1, 2010[1]
				IEER = 11.4 COP = 3.3	January 1, 2018[2]
				IEER = 13.3 COP = 3.4	January 1, 2023
Very Large Commercial Packaged Air Conditioning and Heating Equipment (Air-Cooled)	≥ 240,000 Btu/h and < 760,000 Btu/h	AC	E-N	EER = 10.0	January 1, 2010[1]
				IEER = 11.6	January 1, 2018[2]
				IEER = 13.2	January 1, 2023
			A-O	EER = 9.8	January 1, 2010[1]
				IEER = 11.4	January 1, 2018[2]
				IEER = 13.0	January 1, 2023
		HP	E-N	EER = 9.5 COP = 3.2	January 1, 2010[1]
				IEER = 10.6 COP = 3.2[3]	January 1, 2018[2]
				IEER = 12.5	January 1, 2023
			A-O	EER = 9.3 COP = 3.2	January 1, 2010[1]
				IEER = 10.4 COP = 3.2[3]	January 1, 2018[2]
				IEER = 12.3	January 1, 2023

[1] And manufactured before January 1, 2018.
[2] And manufactured before January 1, 2023.
[3] COP standard remains in effect on and after January 1, 2023.
* E-N = Electric Resistance Heating or No Heating
A-O = All Other Types of Heating

Table C-5
Standards for Commercial Package Air Conditioning and Heating Equipment (Water-Cooled) Air Conditioners, Commercial Package Air Conditioning and Heating Equipment (Evaporatively Cooled) Air Conditioners, and Small Commercial Package Water-Source Heat Pumps

Equipment Type	***Cooling Capacity***	***Sub-category***	***Heating Type****	***Efficiency Levels***	***Compliance date: Equipment manufactured starting on***
Small Commercial Package Air Conditioning and Heating Equipment (Water-Cooled)	< 65,000 Btu/h	AC	All	EER = 12.1	October 29, 2003
			N-E	EER = 12.1	June 1, 2013
			A-O	EER = 11.9	
Large Commercial Package Air-Conditioning and Heating Equipment (Water-Cooled)	≥ 135,000 Btu/h and < 240,000 Btu/h	AC	N-E	EER = 12.5	June 1, 2014
			A-O	EER = 12.3	
Very Large Commercial Package Air-Conditioning and Heating Equipment (Water-Cooled)	≥ 240,000 Btu/h and < 760,000 Btu/h	AC	N-E	EER = 12.4	June 1, 2014
			A-O	EER = 12.2	
Small Commercial Package Air-Conditioning and Heating Equipment (Evaporatively Cooled)	< 65,000 Btu/h	AC	All	EER = 12.1	October 29, 2003
	≥ 65,000 Btu/h and < 135,000 Btu/h	AC	N-E	EER = 12.1	June 1, 2013
			A-O	EER = 11.9	
Large Commercial Package Air-Conditioning and Heating Equipment (Evaporatively Cooled)	≥ 135,000 Btu/h and < 240,000 Btu/h	AC	N-E	EER = 12.0	June 1, 2014
		AC	A-O	EER = 11.8	
Very Large Commercial Package Air Conditioning and Heating Equipment (Evaporatively Cooled)	≥ 240,000 Btu/h and < 760,000 Btu/h	AC	N-E	EER = 11.9	June 1, 2014
		AC	A-O	EER = 11.7	
Small Commercial Package Air-Conditioning and Heating Equipment (Water-Source: Water-to-Air, Water-Loop)	< 17,000 Btu/h	HP	All	EER = 12.2 COP = 4.3	October 9, 2015
	≥ 17,000 Btu/h and < 135,000 Btu/h			EER = 13.0 COP = 4.3	

* N-E = No Heating or Electric Resistance Heating
A-O = All Other Types of Heating

Table C-6
Standards for Single Package Vertical Air Conditioners and Single Package Vertical Heat Pumps Manufactured on or After January 1, 2010

Equipment type	***Cooling capacity***	***Sub-category***	***Efficiency level***	***Compliance date: products manufactured on and after***
Single package vertical air conditioners and single package vertical heat pumps, single-phase and three-phase	<65,000 Btu/h	AC	EER = 9.0	January 1, 2010
			EER = 11.0	September 23, 2019
		HP	EER = 9.0 COP = 3.0	January 1, 2010
			EER = 11.0 COP = 3.3	September 23, 2019
Single package vertical air conditioners and single package vertical heat pumps	≥65,000 Btu/h and <135,000 Btu/h	AC	EER = 10.0	October 9, 2015
		HP	EER = 10.0 COP = 3.0	
	≥135,000 Btu/h and <240,000 Btu/h	AC	EER = 10.0	October 9, 2016
		HP	EER = 10.0 COP = 3.0	

Table C-7
Standards for Computer Room Air Conditioners

Equipment type	***Net sensible cooling capacity (Btu/hr)***	***Minimum SCOP efficiency***		***Compliance date:***
		Downflow unit	***Upflow unit***	
Air-Cooled	<65,000	2.20	2.09	October 29, 2012
	≥65,000 and <240,000	2.10	1.99	October 29, 2013
	≥240,000 and <760,000	1.90	1.79	October 29, 2013
Water-Cooled	<65,000	2.60	2.49	October 29, 2012
	≥65,000 and <240,000	2.50	2.39	October 29, 2013
	≥240,000 and <760,000	2.40	2.29	October 29, 2013
Water-Cooled with a Fluid Economizer	<65,000	2.55	2.44	October 29, 2012
	≥65,000 and <240,000	2.45	2.34	October 29, 2013
	≥240,000 and <760,000	2.35	2.24	October 29, 2013
Glycol-Cooled	<65,000	2.50	2.39	October 29, 2012
	≥65,000 and <240,000	2.15	2.04	October 29, 2013
	≥240,000 and <760,000	2.10	1.99	October 29, 2013
Glycol-Cooled with a Fluid Economizer	<65,000	2.45	2.34	October 29, 2012
	≥65,000 and <240,000	2.10	1.99	October 29, 2013
	≥240,000 and <760,000	2.05	1.94	October 29, 2013

Table C-8
Standards for Variable Refrigerant Flow Multi-Split Air Conditioners and Heat Pumps

Equipment Type	***Cooling Capacity (Btu/h)***	***Heating Type[1*]***	***Efficiency Level***	***Compliance Date: Products Manufactured on and After***
VRF Multi-Split Air Conditioners (Air-Cooled)	< 65,000	All	13.0 SEER	June 16, 2008
	≥ 65,000 and < 135,000	N-E	11.2 EER	January 1, 2010
		A-O	11.0 EER	January 1, 2010
	≥ 135,000 and < 240,000	N-E	11.0 EER	January 1, 2010
		A-O	10.8 EER	January 1, 2010
	≥ 240,000 and < 760,000	N-E	10.0 EER	January 1, 2010
		A-O	9.8 EER	January 1, 2010
VRF Multi-Split Heat Pumps (Air-Cooled)	< 65,000	All	13.0 SEER 7.7 HSPF	June 16, 2008
	≥65,000 Btu/h and <135,000 Btu/h	N-E	11.0 EER 3.3 COP	January 1, 2010.
		A-O	10.8 EER 3.3 COP	January 1, 2010
	≥ 135,000 and < 240,000	N-E	10.6 EER 3.2 COP	January 1, 2010
		A-O	10.4 EER 3.2 COP	January 1, 2010
	≥ 240,000 and < 760,000	N-E	9.5 EER 3.2 COP	January 1, 2010
		A-O	9.3 EER 3.2 COP	January 1, 2010
VRF Multi-Split Heat Pumps (Water-Source)	<17,000 Btu/h	Without heat recovery	12.0 EER 4.2 COP	October 29, 2012. October 29, 2003.
		With heat recovery	11.8 EER 4.2 COP	October 29, 2012. October 29, 2003.
	≥17,000 Btu/h and <65,000 Btu/h	All	12.0 EER 4.2 COP	October 29, 2003.
	≥65,000 Btu/h and <135,000 Btu/h	All	12.0 EER 4.2 COP	October 29, 2003.
	≥135,000 Btu/h and <760,000 Btu/h	Without heat recovery	10.0 EER 3.9 COP	October 29, 2013.
		With heat recovery	9.8 EER 3.9 COP	October 29, 2013

[1]VRF Multi-Split Heat Pumps (Air-Cooled) with heat recovery fall under the category of "All Other Types of Heating" unless they also have electric resistance heating, in which case it falls under the category for "No Heating or Electric Resistance Heating."
* N-E = No Heating or Electric Resistance Heating
A-O = All Other Types of Heating

Table C-9
Standards for Double-Duct Commercial Packaged Air Conditioning and Heating Equipment Manufactured on or After January 1, 2010

Equipment type	*Cooling capacity*	*Sub-category*	*Heating type**	*Efficiency level*[1]
Small Double-Duct Commercial Packaged Air Conditioning and Heating Equipment (Air-Cooled)	≥ 65,000 Btu/h and < 135,000 Btu/h	AC	E-N	EER = 11.2
			A-O	EER = 11.0
		HP	E-N	EER = 11.0 COP = 3.3
			A-O	EER = 10.8 COP = 3.3
Large Commercial Double-Duct Packaged Air Conditioning and Heating Equipment (Air-Cooled)	≥ 135,000 Btu/h and < 240,000 Btu/h	AC	E-N	EER = 11.0
			A-O	EER = 10.8
		HP	E-N	EER = 10.6 COP = 3.2
			A-O	EER = 10.4 COP = 3.2
Very Large Double-Duct Commercial Packaged Air Conditioning and Heating Equipment (Air-Cooled)	≥ 240,000 Btu/h and < 300,000 Btu/h	AC	E-N	EER = 10.0
			A-O	EER = 9.8
		HP	E-N	EER = 9.5 COP = 3.2
			A-O	EER = 9.3 COP = 3.2

* E-N = Electric Resistance Heating or No Heating
A-O = All Other Types of Heating
[1]For units tested using the relevant AHRI Standards, all COP values must be rated at 47 °F outdoor dry-bulb temperature for air-cooled equipment.

(2) Gas-fired Air Conditioners and Heat Pumps. There is no energy efficiency standard or energy design standard for gas-fired air conditioners or gas-fired heat pumps.

(3) Other Central Air Conditioners. See section 1605.3(c) of this Article for energy efficiency standards for other central air conditioners.

(4) Heat Pump Water Heating Packages. There is no energy efficiency standard or energy design standard for heat pump water-heating packages.

(5) Air Filters. There are no energy efficiency standards or energy design standards for air filters.

(d) Portable Air Conditioners, Evaporative Coolers, Ceiling Fans, Ceiling Fan Light Kits, Whole House Fans, Residential Exhaust Fans, Dehumidifiers, and Residential Furnace Fans.

(1) Ceiling fans.

(A) Ceiling fans manufactured on or after January 1, 2007~~,~~ shall have the following features:

1. Fan speed controls separate from any lighting controls;

2. Adjustable speed controls (either more than 1 speed or variable speed);

3. The capability of reversible fan action, except for:

a. Fans sold for industrial applications;

b. Fans sold for outdoor applications; and

c. Cases in which safety standards would be violated by the use of the reversible mode.

(B) Ceiling fans manufactured on or after January 21, 2020 shall meet the requirements shown in Table D-4.

Table D-4
Standards for Ceiling Fans Manufactured On or After January 21, 2020

Ceiling Fan Type	***Efficiency (CFM/Watts)[1]***
Very small-diameter (VSD)	D ≤ 12 inches: 21 D > 12 inches: 3.16 D −17.04
Standard	0.65 D + 38.03
Hugger	0.29 D + 34.46
High-speed small-diameter (HSSD)	4.16 D + 0.02
Large-diameter	0.91 D−30.00
[1]D is the ceiling fan's blade span, in inches.	

EXCEPTIONS to Section 1605.1(d)(1) of this Article: The provisions in section 1605.1(d)(1) of this Article apply to ceiling fans except:

(1) Ceiling fans where the plane of rotation of a ceiling fan's blades is not less than or equal to 45 degrees from horizontal, or cannot be adjusted based on the manufacturer's specifications to be less than or equal to 45 degrees from horizontal;

(2) Centrifugal ceiling fans, as defined in section 1602(d) of this Article;

(3) Belt-driven ceiling fans, as defined in section 1602(d) of this Article;

(4) Oscillating ceiling fans, as defined in section 1602(d) of this Article; and

(5) Highly decorative ceiling fans, as defined in section 1602(d) of this Article.

(2) Ceiling fan light kits.

(A) Ceiling Fan Light Kits with Medium Screw Base Sockets. Ceiling fan light kits manufactured on or after January 1, 2007, and prior to January 21, 2020, with medium screw base sockets must be packaged with medium screw base lamps to fill all sockets. These medium screw base lamps must:

1. Be compact fluorescent lamps that meet or exceed the requirements shown in Table D-5 or be as described in section 1605.1(d)(2)(A)2 of this Article:

Table D-5
Requirements for CFLs Used in Ceiling Fan Light Kits with Medium Screw Base Sockets

Factor	***Requirements***
Rated Wattage (Watts) & Configuration[1]	Minimum Initial Lamp Efficacy (lumens per watt)[2]
Bare Lamp:	
Lamp Power < 15	45.0
Lamp Power ≥ 15	60.0
Covered Lamp (no reflector):	
Lamp Power < 15	40.0
15 ≤ Lamp Power < 19	48.0
19 ≤ Lamp Power < 25	50.0
Lamp Power ≥ 25	55.0
With Reflector:	
Lamp Power < 20	33.0
Lamp Power ≥ 20	40.0
Lumen Maintenance at 1,000 hours	≥ 90.0%
Lumen Maintenance at 40 Percent of Lifetime	≥ 80.0%
Rapid Cycle Stress Test	Each lamp must be cycled once for every 2 hours of lifetime. At least 5 lamps must meet or exceed the minimum number of cycles.
Lifetime	≥ 6,000 hours for the sample of lamps.

[1]Use rated wattage to determine the appropriate minimum efficacy requirements in this table.
[2]Calculate efficacy using measured wattage, rather than rated wattage, and measured lumens to determine product compliance. Wattage and lumen values indicated on products or packaging may not be used in calculation.

2. Be light sources other than compact fluorescent lamps that have lumens per watt performance at least equivalent to comparably configured compact fluorescent lamps meeting the energy conservation standards in section 1605.1(d)(2)(A)1. of this Article.

(B) Ceiling Fan Light Kits with Pin-Based Sockets for Fluorescent Lamps. Ceiling fan light kits manufactured on or after January 1, 2007, and prior to January 21, 2020, with pin-based sockets for fluorescent lamps must use an electronic ballast and be packaged with lamps to fill all sockets. These lamp ballast platforms must meet the requirements shown in Table D-6:

Table D-6
System Efficacy Per Lamp Ballast Platform in Lumens Per Watt (lm/W)

Lamp Description	***Minimum Lumens Per Watt (lm/W)***
All lamps below 30 total listed lamp watts	50 lm/w
All lamps that are ≤ 24 inches and ≥ 30 total listed lamp watts	60 lm/w
All lamps that are > 24 inches and ≥ 30 total listed lamp watts.	70 lm/w

(C) Ceiling fan light kits manufactured on or after January 1, 2009, and prior to January 21, 2020. Ceiling fan light kits manufactured on or after January 1, 2009, and prior to January 21, 2020, with socket types other than those covered in sections 1605.1(d)(2)(A) and 1605.1(d)(2)(B) of this Article, including candelabra screw base sockets, must be packaged with lamps to fill all sockets and must not be capable of operating with lamps that total more than 190 watts.

(D) Ceiling fan light kits manufactured on or after January 21, 2020. Ceiling fan light kits manufactured on or after January 21, 2020 must be packaged with lamps to fill all sockets, and each basic model of lamp packaged with the basic model of the ceiling fan light kit and each basic model of integrated SSL in the ceiling fan light kit basic model shall meet the requirements shown in Table D-7:

Table D-7
Standards for Ceiling Fan Light Kits Manufactured On or After January 21, 2020

Lumens[1]	**Minimum required efficacy (lm/W)**
< 120	50
≥ 120	$(74.0 - 29.42 \times 0.9983^{lumens})$
[1]Use the lumen output for each basic model of lamp packaged with the basic model of ceiling fan light kit (CFLK) or each basic model of integrated SSL in the CFLK basic model to determine the applicable standard.	

1. Ceiling Fan Light Kits with Medium Screw Base Sockets. Ceiling fan light kits with medium screw base sockets manufactured on or after January 21, 2020 and packaged with compact fluorescent lamps must include lamps that also meet the requirements shown in Table D-8:

Table D-8
Standards for Ceiling Fan Light Kits with Medium Screw Base Sockets
Manufactured On or After January 21, 2020

Criteria	***Requirement***
Lumen Maintenance at 1,000 Hours	≥ 90%
Lumen Maintenance at 40 Percent of Lifetime	≥ 80%
Rapid Cycle Stress Test	Each lamp must be cycled once for every 2 hours of lifetime of compact fluorescent lamp. At least 5 lamps must meet or exceed the minimum number of cycles.
Lifetime	≥ 6,000 hours for the sample of lamps

2. Ceiling Fan Light Kits with Pin Based Sockets for Fluorescent Lamps. Ceiling fan light kits with pin based sockets for fluorescent lamps, manufactured on or after January 21, 2020, must also use an electronic ballast.

(3) Dehumidifiers.

(A) Dehumidifiers Manufactured On or After October 1, 2012 and Before June 13, 2019. The energy factor for dehumidifiers manufactured on or after October 1, 2012 and before June 13, 2019 shall be not less than the applicable values shown in Table D-9.

Table D-9
Standards for Dehumidifiers Manufactured On or After October 1, 2012
And Before June 13, 2019

Product capacity (pint/day)	***Minimum energy factor (liters/kWh)***
	Effective October 1, 2012
25.00 or less	1.35
25.01 – 35.00	1.35
35.01 – 45.00	1.50
45.01 – 54.00	1.60
54.01 – 74.99	1.70
75.00 or more	2.50

(B) Dehumidifiers Manufactured On or After June 13, 2019. The integrated energy factor for dehumidifiers manufactured on or after June 13, 2019 shall be not less than the applicable values shown in Table D-10.

Table D-10
Standards for Dehumidifiers Manufactured On or After June 13, 2019

Portable dehumidifier product capacity (pints/day)	***Minimum Integrated Energy Factor (liters/kWh)***
25.00 or less	1.30
25.01 – 50.00	1.60
50.01 or more	2.80
Whole-home dehumidifier product case volume (ft^3)	
8.0 or less	1.77
More than 8.0	2.41

(4) Residential furnace fans. Residential furnace fans incorporated in the products listed in Table D-10 of this Article and manufactured on and after July 3, 2019, shall have a fan energy rating (FER) value that meets or is less than the values shown in Table D-10.

(A) Exceptions. Furnace fans incorporated into hydronic air handlers, SDHV modular blowers, SDHV electric furnaces, and central air conditioner/central heat pump indoor units are not subject to the standards listed in Table D-11.

Table D-11
Energy Conservation Standards for Federally Covered Residential Furnace Fans

Product class	***FER[1] (Watts/cfm)***
Non-Weatherized, Non-Condensing Gas Furnace Fan (NWG-NC)	FER = 0.044 × Q_{Max} + 182
Non-Weatherized, Condensing Gas Furnace Fan (NWG-C)	FER = 0.044 × Q_{Max} + 195
Weatherized Non-Condensing Gas Furnace Fan (WG-NC)	FER = 0.044 × Q_{Max} + 199
Non-Weatherized, Non-Condensing Oil Furnace Fan (NWO-NC)	FER = 0.071 × Q_{Max} + 382
Non-Weatherized Electric Furnace/Modular Blower Fan (NWEF/NWMB)	FER = 0.044 × Q_{Max} + 165
Mobile Home Non-Weatherized, Non-Condensing Gas Furnace Fan (MH-NWG-NC)	FER = 0.071 × Q_{Max} + 222
Mobile Home Non-Weatherized, Condensing Gas Furnace Fan (MH-NWG-C)	FER = 0.071 × Q_{Max} + 240
Mobile Home Electric Furnace/Modular Blower Fan (MH-EF/MB)	FER = 0.044 × Q_{Max} + 101
Mobile Home Non-Weatherized Oil Furnace Fan (MH-NWO)	Reserved
Mobile Home Weatherized Gas Furnace Fan (MH-WG)**	Reserved
[1]Q_{Max} is the airflow, in cfm, at the maximum airflow-control setting measured using the final DOE test procedure at 10 CFR part 430, subpart B, appendix AA.	

(5) There are no energy efficiency standards or energy design standards for portable air conditioners, evaporative coolers, whole house fans, or residential exhaust fans. There are no efficiency standards for ceiling fans.

(e) Gas and Oil Space Heaters and Electric Residential Boilers.

(1) Gas Wall Furnaces, Gas Floor Furnaces, and Gas Room Heaters. The AFUE of gas wall furnaces, gas floor furnaces, and gas room heaters manufactured on or after the effective dates shown shall be not less than the applicable values shown in Table E-2.

Table E-2
Standards for Gas Wall Furnaces, Floor Furnaces, and Room Heaters

Appliance	***Design Type***	***Capacity (Btu per hour)***	***Minimum AFUE (%)***
			Effective On or After April 16, 2013
Wall furnace	Fan	≤ 42,000	75
Wall furnace	Fan	> 42,000	76
Wall furnace	Gravity	≤ 27,000	65
Wall furnace	Gravity	> 27,000 and ≤ 46,000	66
Wall furnace	Gravity	> 46,000	67
Floor furnace	All	≤ 37,000	57
Floor furnace	All	> 37,000	58
Room heater	All	≤ 20,000	61
Room heater	All	> 20,000 and ≤ 27,000	66
Room heater	All	> 27,000 and ≤ 46,000	67
Room heater	All	> 46,000	68

(2) Central Gas Furnaces, Central Gas Boilers, Central Oil Furnaces, Central Oil Boilers, and Electric Residential Boilers. The AFUE, thermal efficiency, and combustion efficiency, as applicable, of central gas furnaces, central gas boilers, central oil furnaces, and central oil boilers manufactured on or after the effective dates shown shall meet all applicable requirements shown in Tables E-3, E-4, E-5, and E-6. Electric hot water residential boilers manufactured on or after September 1, 2012 shall meet the design standard shown in Table E-3.

Table E-3
Standards for Gas- and Oil-Fired Central Boilers < 300,000 Btu/hour Input
and Electric Residential Boilers

Appliance	***Minimum AFUE (%)***		***Maximum Power Consumption***	
	Effective September 1, 2012	***Effective January 15, 2021***		
		AFUE	***Standby***	***Off Mode***
Gas steam boilers with single phase electrical supply	80 [1]	82 [1]	8	8
Gas hot water boilers with single phase electrical supply	82 [1,2]	84 [1,2]	9	9
Oil steam boilers with single phase electrical supply	82	85	11	11
Oil hot water boilers with single phase electrical supply	84 [2]	86 [2]	11	11
Electric steam residential boilers	NONE	NONE	8	8
Electric hot water residential boilers	NONE [2]	NONE [2]	8	8

[1] No constant burning pilot light design standard effective September 1, 2012.
[2] Automatic means for adjusting temperature design standard effective September 1, 2012. (Boilers equipped with tankless domestic water heating coils do not need to comply with this requirement.)

(A) Automatic Means for Adjusting Water Temperature. The automatic means for adjusting the temperature design, shown as footnote 2 in Table E-3 immediately above, means:

1. In General. The manufacturer shall equip each gas, oil, and electric hot water boiler (other than a boiler equipped with a tankless domestic water heating coil) with automatic means for adjusting the temperature of the water supplied by the boiler to ensure that an incremental change in inferred heat load produces a corresponding incremental change in the temperature of water supplied.

2. Single Input Rate. For a boiler that fires at one input rate, the requirements of this subparagraph may be satisfied by providing an automatic means that allows the burner or heating element to fire only when the means has determined that the inferred heat load cannot be met by the residual heat of the water in the system.

3. No Inferred Heat Load. When there is no inferred heat load with respect to a hot water boiler, the automatic means described in subsections 1605.1(e)(2)(A)1. and 1605.1(e)(2)(A)2. of this Article shall limit the temperature of the water in the boiler to not more than 140˚F.

4. Operation. A boiler described in subsections 1605.1(e)(2)(A)1. or 1605.1(e)(2)(A)2. of this Article shall be operable only when the automatic means described in subsections 1605.1(e)(2)(A)1., 1605.1(e)(2)(A)2., and 1605.1(e)(2)(A)3. of this Article is installed.

(B) EXCEPTION to section 1605.1(e)(2) of this Article: A boiler that is manufactured to operate without any need for electricity or any electric connection, electric gauges, electric pumps, electric wires, or electric devices shall not be required to meet the efficiency standards or design standard that take effect for models manufactured on or after September 1, 2012. Boilers described in this EXCEPTION are required to meet the efficiency standards in effect prior to September 1, 2012, as applicable.

Table E-4
Standards for Gas- and Oil-Fired Commercial Packaged Boilers ≥ 300,000 Btu/hour Input

Appliance	*Type*	*Rated Input (Btu/hr)*	*Minimum Efficiency (%)*		
			Combustion Efficiency %	*Thermal Efficiency%*	
			March 2, 2012	*March 2, 2012 through March 1, 2022*	*March 2, 2022*
Hot Water Boilers	Gas-fired	≥ 300,000 and ≤ 2,500,000	—	80	80
		> 2,500,000	82	—	—
	Oil-fired	≥ 300,000 and ≤ 2,500,000	—	82	82
		> 2,500,000	84	—	—
Steam Boilers	Gas-fired, except natural draft	≥ 300,000 and ≤ 2,500,000	—	79	79
		> 2,500,000	—		
	Gas-fired, natural draft	≥ 300,000 and ≤ 2,500,000	—	77	79
		> 2,500,000	—		
	Oil-fired	≥ 300,000 and ≤ 2,500,000	—	81	81
		> 2,500,000	—		

Table E-5
Standards for Commercial Gas- and Oil-Fired Central Furnaces

Appliance	***Rated Input (Btu/hr)***	***Minimum Thermal Efficiency***	
		January 1, 1994	***January 1, 2023***
Gas central furnaces	≥ 225,000	80	81
Oil central furnaces	≥ 225,000	81	82

Table E-6
Standards for Gas- and Oil-Fired Central Furnaces Less Than 225,000 Btu/hour Input
And Residential Electric Furnaces

Product Class	***AFUE (percent)***	***Maximum Electrical Power Consumption***	
		Standby	***Off Mode***
(A) Non-weatherized gas furnaces (not including mobile home furnaces)	80	No requirement	
(B) Mobile Home gas furnaces	80	No requirement	
(C) Non-weatherized oil-fired furnaces (not including mobile home furnaces)	83	11	11
(D) Mobile Home oil-fired furnaces	75	11	11
(E) Weatherized gas furnaces	81	No requirement	
(F) Weatherized oil-fired furnaces	78	No requirement	
(G) Electrical furnaces	78	10	10

(3) Infrared Gas Space Heaters. There is no energy efficiency standard or energy design standard for infrared gas space heaters.

(4) Unit Heaters. Unit heaters manufactured on or after August 8, 2008 shall:

(A) Be equipped with an intermittent ignition device; and

(B) Have power venting or an automatic flue damper. An automatic vent damper is an acceptable alternative to an automatic flue damper for those unit heaters where combustion air is drawn from the conditioned space.

(5) Other Gas and Oil Space Heaters. See section 1605.3(e) of this Article for standards for boilers, central furnaces, combination space-heating and water-heating appliances, and duct furnaces that are not federally regulated consumer products or federally regulated commercial and industrial equipment.

(f) Water Heaters.

(1) Water Heaters Regulated Under 10 C.F.R. section 430.32(d). The uniform energy factor of water heaters regulated under 10 C.F.R. section 430.32(d) shall be not less than the applicable values shown in Table F-2.

Table F-2
Standards for Water Heaters Regulated Under 10 C.F.R. Section 430.32(d)

Product Class	***Rated Storage Volume and Input Rating (if applicable)***	***Draw Pattern***	***Minimum Uniform Energy Factor****
Gas-fired Storage Water Heater	≥ 20 gallons and ≤ 55 gallons	Very small	$0.3456 - (0.0020 \times V_r)$
		Low	$0.5982 - (0.0019 \times V_r)$
		Medium	$0.6483 - (0.0017 \times V_r)$
		High	$0.6920 - (0.0013 \times V_r)$
	> 55 gallons and ≤ 100 gallons	Very small	$0.6470 - (0.0006 \times V_r)$
		Low	$0.7689 - (0.0005 \times V_r)$
		Medium	$0.7897 - (0.0004 \times V_r)$
		High	$0.8072 - (0.0003 \times V_r)$
Oil-fired Storage Water Heater	≤ 50 gallons	Very small	$0.2509 - (0.0012 \times V_r)$
		Low	$0.5330 - (0.0016 \times V_r)$
		Medium	$0.6078 - (0.0016 \times V_r)$
		High	$0.6815 - (0.0014 \times V_r)$
Electric Storage Water Heaters	≥ 20 gallons and ≤ 55 gallons	Very small	$0.8808 - (0.0008 \times V_r)$
		Low	$0.9254 - (0.0003 \times V_r)$
		Medium	$0.9307 - (0.0002 \times V_r)$
		High	$0.9349 - (0.0001 \times V_r)$
	> 55 gallons and ≤ 120 gallons	Very small	$1.9236 - (0.0011 \times V_r)$
		Low	$2.0440 - (0.0011 \times V_r)$
		Medium	$2.1171 - (0.0011 \times V_r)$
		High	$2.2418 - (0.0011 \times V_r)$
Tabletop Water Heater	≥ 20 gallons and ≤ 120 gallons	Very small	$0.6323 - (0.0058 \times V_r)$
		Low	$0.9188 - (0.0031 \times V_r)$
		Medium	$0.9577 - (0.0023 \times V_r)$
		High	$0.9884 - (0.0016 \times V_r)$
Instantaneous Gas-fired Water Heater	< 2 gallons and >50,000 Btu/h	Very small	0.80
		Low	0.81
		Medium	0.81
		High	0.81
Instantaneous Electric Water Heater	< 2 gallons	Very small	0.91
		Low	0.91
		Medium	0.91
		High	0.92
Grid-Enabled Water Heater	> 75 gallons	Very small	$1.0136 - (0.0028 \times V_r)$
		Low	$0.9984 - (0.0014 \times V_r)$
		Medium	$0.9853 - (0.0010 \times V_r)$
		High	$0.9720 - (0.0007 \times V_r)$
* V_r = Rated Storage Volume in gallons.			

(2) Water Heaters Regulated Under 42 U.S.C. section 6295(e)(1). Water heaters regulated under 42 U.S.C. section 6295(e)(1) must meet the values shown in Table F-3 as applicable.

Table F-3
Standards for Water Heaters Regulated Under 42 U.S.C. section 6295(e)(1)

Product Class	***Minimum Energy Factor****
Gas Water Heater[1]	$0.62 - (0.0019 \times V_r)$
Oil Water Heater[1]	$0.59 - (0.0019 \times V_r)$
Electric Water Heater[1]	$0.95 - (0.00132 \times V_r)$
* Vr = Rated Storage Volume in gallons. [1]Applies to water heaters not covered under 10 C.F.R. section 430.32, including but not limited to storage water heaters > 1 gal and < 20 gal (mini-tank water heaters) and booster water heaters. These standards will take effect on the effective date of a federal test procedure that converts Uniform Energy Factor (UEF) to Energy Factor for these products. If the Secretary adopts federal efficiency standards for water heaters regulated under 42 U.S.C. section 6295(e)(1), these standards shall not apply.	

(3) Water Heaters Regulated Under 10 C.F.R. section 431.110. Water heaters regulated under 10 C.F.R. section 431.110 must meet the values shown in Tables F-4 and F-5, as applicable.

(A) Commercial Storage Water Heaters, Instantaneous Water Heaters, and Hot Water Supply Boilers (Excluding Residential-Duty Commercial Water Heaters). Each commercial storage water heater, instantaneous water heater, and hot water supply boiler (excluding residential-duty commercial water heaters) must meet the applicable energy conservation standard level(s) as specified in Table F-4.

1. Packaged Boiler Exclusion. Any packaged boiler that provides service water that meets the definition of "commercial packaged boiler" in section 1602(e) of this Article, but does not meet the definition of "hot water supply boiler" in section 1602(f) of this Article, must meet the requirements that apply to it under section 1605.1(e) of this Article.

Table F-4
Standards for Water Heaters Regulated Under 10 C.F.R. Section 431.110(a) (Excluding Residential-Duty Commercial Water Heaters)

Equipment Category	***Size***	***Energy Conservation Standards*** [a]	
		Maximum standby loss [c] ***(equipment manufactured on and after October 29, 2003)*** [b]	***Minimum thermal efficiency (equipment manufactured on and after October 9, 2015)*** [b] ***(%)***
Electric storage water heaters	All	$0.30 + 27/V_m$ (%/hr)	N/A
Gas-fired storage water heaters	≤ 155,000 Btu/hr	$Q/800 + 110(V_r)^{1/2}$ (Btu/hr)	80
	> 155,000 Btu/hr	$Q/800 + 110(V_r)^{1/2}$ (Btu/hr)	80
Oil-fired storage water heaters	≤ 155,000 Btu/hr	$Q/800 + 110(V_r)^{1/2}$ (Btu/hr)	80
	> 155,000 Btu/hr	$Q/800 + 110(V_r)^{1/2}$ (Btu/hr)	80
Gas-fired instantaneous water heaters and hot water supply boilers	< 10 gallons	N/A	80
	≥ 10 gallons	$Q/800 + 110(V_r)^{1/2}$ (Btu/hr)	80
Oil-fired instantaneous water heaters and hot water supply boilers	< 10 gallons	N/A	80
	≥ 10 gallons	$Q/800 + 110(V_r)^{1/2}$ (Btu/hr)	78

[a] V_m is the measured storage volume (in gallons), and V_r is the rated volume (in gallons). Q is the nameplate input rate in Btu/hr.
[b] For hot water supply boilers with a capacity of less than 10 gallons: (1) The standards are mandatory for products manufactured on and after October 21, 2005; and (2) products manufactured prior to that date, and on or after October 23, 2003, must meet either the standards listed in Table F-3 or the applicable standards in Table E-4 of this Article for a "commercial packaged boiler."
[c] Water heaters and hot water supply boilers having more than 140 gallons of storage capacity need not meet the standby loss requirement if: (1) The tank surface area is thermally insulated to R-12.5 or more; (2) a standing pilot light is not used; and (3) for gas or oil-fired storage water heaters, they have a fire damper or fan-assisted combustion.

(B) Residential-Duty Commercial Water Heaters. Each residential-duty commercial water heater must have a minimum uniform energy factor not less than the values shown in Table F-5.

Table F-5
Standards for Residential-Duty Commercial Water Heaters

Product Class	***Specifications*** [a]	***Draw Pattern***	***Minimum Uniform Energy Factor*** [b]
Gas-fired Storage	> 75 kBtu/hr and ≤ 105 kBtu/hr and ≤ 120 gallons	Very Small	$0.2674 - (0.0009 \times V_r)$
		Low	$0.5362 - (0.0012 \times V_r)$
		Medium	$0.6002 - (0.0011 \times V_r)$
		High	$0.6597 - (0.0009 \times V_r)$
Oil-fired Storage	> 105 kBtu/hr and ≤ 140 kBtu/hr and ≤ 120 gal	Very Small	$0.2932 - (0.0015 \times V_r)$
		Low	$0.5596 - (0.0018 \times V_r)$
		Medium	$0.6194 - (0.0016 \times V_r)$
		High	$0.6740 - (0.0013 \times V_r)$
Electric Instantaneous	> 12 kW and ≤ 58.6 kW and ≤ 2 gal	Very Small	0.80
		Low	0.80
		Medium	0.80
		High	0.80

[a] Additionally, to be classified as a residential-duty commercial water heater, a commercial water heater must meet the following conditions:
(1) if the water heater requires electricity, it must use a single-phase external power supply; and
(2) the water heater must not be designed to heat water to temperatures greater than 180°F.
[b] V_r is the rated storage volume (in gallons), as determined pursuant to 10 CFR section 429.44.

(4) Combination Space-Heating and Water-Heating Appliances. See section 1605.3(e) of this Article for standards for combination space-heating and water-heating appliances.

(g) Pool Heaters, Portable Electric Spas, Pumps, Residential Pool Pump and Motor Combinations, and Replacement Residential Pool Pump Motors.

(1) Energy Efficiency Standard for Fossil Fuel-Fired Pool Heaters. The thermal efficiency of fossil fuel-fired pool heaters manufactured on or after the effective dates shown shall be not less than the values shown in Table G-1.

Table G-1
Standards for Fossil Fuel-Fired Pool Heaters

Appliance	***Effective Date***	***Minimum Thermal Efficiency (%)***
Gas-Fired Pool Heaters	April 16, 2013	82
Oil-Fired Pool Heaters	January 1, 1990	78

(2) Energy Efficiency Standards for Heat Pump Pool Heaters. See section 1605.3(g) of this Article for energy efficiency standards for heat pump pool heaters.

(3) Energy Efficiency Standard for Electric Resistance Pool Heaters. There is no energy efficiency standard for electric resistance pool heaters.

(4) Energy Design Standards for Pool Heaters. See section 1605.3(g) of this Article for energy design standards for pool heaters.

(5) Energy Efficiency Standards for Portable Electric Spas. See section 1605.3(g) of this Article for energy efficiency standards for portable electric spas.

(6) Energy Efficiency Standards for Pumps

(A) For the purposes of section 1605.1(g)(6)(B) of this Article, "PEI_{CL}" means the constant load pump energy index and "PEI_{VL}" means the variable load pump energy index, both as determined in accordance with the test procedure in section 1604(g)(4) of this Article. For the purposes of section 1605.1(g)(6)(C) of this Article, "BEP" means the best efficiency point as determined in accordance with the test procedure in section 1604(g)(4) of this Article.

(B) Pump Efficiency Standards. Each pump that is manufactured on or after January 27, 2020 and that:

1. is in one of the equipment classes listed in Table G-2 in section 1605.1(g)(6)(B)4 of this Article;

2. meets the definition of a "clean water pump" in section 1602(g) of this Article;

3. is not listed in section 1605.1(g)(6)(C) of this Article; and

4. conforms to the characteristics listed in section 1605.1(g)(6)(D) of this Article must have a PEI_{CL} or PEI_{VL} rating of not more than 1.00 using the appropriate C-value in Table G-2:

Table G-2
Standards for Pumps Manufactured On or After January 27, 2020

Equipment class[1]	*Maximum PEI*[2]	*C-value*[3]
ESCC.1800.CL	1.00	128.47
ESCC.3600.CL	1.00	130.42
ESCC.1800.VL	1.00	128.47
ESCC.3600.VL	1.00	130.42
ESFM.1800.CL	1.00	128.85
ESFM.3600.CL	1.00	130.99
ESFM.1800.VL	1.00	128.85
ESFM.3600.VL	1.00	130.99
IL.1800.CL	1.00	129.30
IL.3600.CL	1.00	133.84
IL.1800.VL	1.00	129.30
IL.3600.VL	1.00	133.84
RSV.1800.CL	1.00	129.63
RSV.3600.CL	1.00	133.20
RSV.1800.VL	1.00	129.63
RSV.3600.VL	1.00	133.20
ST.1800.CL	1.00	138.78
ST.3600.CL	1.00	134.85
ST.1800.VL	1.00	138.78
ST.1800.VL	1.00	134.85

[1] Equipment class designations consist of a combination (in sequential order separated by periods) of: (1) An equipment family (ESCC = end suction close-coupled, ESFM = end suction frame mounted/own bearing, IL = in-line, RSV = radially split, multi-stage, vertical, in-line diffuser casing, ST = submersible turbine; all as defined in 10 C.F.R. section 431.462); (2) nominal speed of rotation (1800 = 1800 rpm, 3600 = 3600 rpm); and (3) an operating mode (CL = constant load, VL = variable load). Determination of the operating mode is determined using the test procedure in appendix A to this subpart.
[2]For equipment classes ending in .CL, the relevant PEI is PEI_{CL}. For equipment classes ending in .VL, the relevant PEI is PEI_{VL}.
[3]The C-values shown in this table must be used in the equation for PERSTD when calculating PEI_{CL} or PEI_{VL}, as described in section II.B of 10 C.F.R. Appendix A to subpart Y of part 431.

(C) Exceptions to Pump Efficiency Standards. The energy efficiency standards in section 1605.1(g)(6)(B) of this Article do not apply to the following pumps:

1. fire pumps;

2. self-priming pumps;

3. prime-assist pumps;

4. magnet driven pumps;

5. pumps designed to be used in a nuclear facility subject to 10 C.F.R. part 50, “Domestic Licensing of Production and Utilization Facilities”;

6. pumps meeting the military specification design and construction requirements set forth in 10 C.F.R. section 431.465(c)(6).

(D) Characteristics of Regulated Pumps. The energy conservation standards in section 1605.1(g)(6)(B) of this Article apply only to pumps that have the following characteristics:

1. flow rate of 25 gpm or greater at BEP at full impeller diameter;

2. maximum head of 459 feet at BEP at full impeller diameter and the number of stages required for testing;

3. design temperature range from 14 to 248 °F;

4. designed to operate with either:

a. a 2- or 4-pole induction motor; or

b. a non-induction motor with a speed of rotation operating range that includes speeds of rotation between 2,880 and 4,320 revolutions per minute and/or 1,440 and 2,160 revolutions per minute; and

c. in either case, the driver and impeller must rotate at the same speed;

5. for ST pumps, a 6-inch or smaller bowl diameter; and

6. for ESCC and ESFM pumps, specific speed less than or equal to 5,000 when calculated using U.S. customary units.

(7) Energy Efficiency Standards and Energy Design Standards for Residential Pool Pump and Motor Combinations and Replacement Residential Pool Pump Motors. See section 1605.3(g) of this Article for energy efficiency standards and energy design standards for residential pool pump and motor combinations and replacement residential pool pump motors.

(h) Plumbing Fittings.

(1) Metering Faucets and Wash Fountains. The flow rate of wash fountains and metering faucets shall be not greater than the applicable values shown in Table H-1.

Table H-1
Standards for Plumbing Fittings

Appliance	***Maximum Flow Rate***
Wash fountains	$2.2 \times \frac{\text{rimspace (inches)}}{20} \text{gpm at 60 psi}$
Metering faucets	0.25 gallons/cycle [1,2]
Metering faucets for wash fountains	$0.25 \times \frac{\text{rim space (inches)}}{20} \text{gpm at 60 psi}$ [1,2]

[1] Sprayheads with independently-controlled orifices and manual controls. The maximum flow rate of each orifice that delivers a preset volume of water before gradually shutting itself off shall not exceed the maximum flow rate for a metering faucet.
[2] Sprayheads with collectively controlled orifices and metered controls. The maximum flow rate of a sprayhead that delivers a preset volume of water before gradually shutting itself off shall be the product of (a) the maximum flow rate for a metering faucet and (b) the number of component lavatories (rim space of the lavatory in inches (millimeters) divided by 20 inches (508 millimeters)).

(2) Showerhead-Tub Spout Diverter Combinations. Showerhead-tub spout diverter combinations shall meet both the standard for showerheads and the standard for tub spout diverters.

(3) Tub Spout Diverters. See section 1605.3(h) of this Article for standards for tub spout diverters.

(4) Commercial Pre-rinse Spray Valves.

(A) The flow rate of commercial pre-rinse spray valves manufactured on or after January 1, 2006 and before January 28, 2019 shall be equal to or less than 1.6 gpm at 60 psi.

(B) The flow rate of commercial pre-rinse spray valves manufactured on or after January 28, 2019 shall be equal to or less than the values shown in Table H-2.

Table H-2
Standards for Commercial Pre-rinse Spray Valves
Manufactured On or After January 28, 2019

Product Class (spray force in ounce force (ozf))	***Maximum Flow Rate (gpm)***
Product Class 1 (≤ 5.0 ozf)	1.00
Product Class 2 (> 5.0 ozf and ≤ 8.0 ozf)	1.20
Product Class 3 (> 8.0 ozf)	1.28

(C) See section 1605.3(h) of this Article for design standards for commercial pre-rinse spray valves.

(5) Showerheads, lavatory faucets, kitchen faucets, aerators, and public lavatory faucets. See section 1605.3 (h) of this Article for standards for all showerheads, lavatory faucets, kitchen faucets, aerators, and public lavatory faucets sold or offered for sale in California.

(i) Plumbing Fixtures.

See section 1605.3(i) of this Article for water efficiency standards for plumbing fixtures.

(j) Fluorescent Lamp Ballasts and Deep-Dimming Fluorescent Lamp Ballasts.

(1) Fluorescent lamp ballasts (other than dimming ballasts). Except as provided in sections 1605.1(j)(2) and 1605.1(j)(3) of this Article, each fluorescent lamp ballast:

(A) Manufactured on or after November 14, 2014;

(B) Designed and marketed:

1. To operate at nominal input voltages at or between 120 and 277 volts;

2. To operate with an input current frequency of 60 Hertz; and

3. For use in connection with fluorescent lamps (as defined in 10 C.F.R. part 430, section 430.2)

(C) Shall have:

1. A power factor of 0.9 or greater except for ballasts that are not residential ballasts;

2. A power factor of 0.5 or greater for residential ballasts;

3. A ballast luminous efficiency not less than the values shown in Table J-2:

Table J-2
Standards for Fluorescent Lamp Ballasts, Except for Certain Dimming Ballasts Applicable to Models Described in Section 1605.1(j)(1) of this Article

BLE = A/(1+B*average total lamp arc power ^ −C) Where A, B, and C are as follows:			
Description	*A*	*B*	*C*
Instant start and rapid start ballasts (not classified as residential) that are designed to operate	0.993	0.27	0.25
4-foot medium bipin lamps.			
2-foot U-shaped lamps.			
8-foot slimline lamps.			
Programmed start ballasts (not classified as residential) that are designed to operate	0.993	0.51	0.37
4-foot medium bipin lamps.			
2-foot U-shaped lamps.			
4-foot miniature bipin standard output lamps.			
4-foot miniature bipin high output lamps.			
Instant start and rapid start ballasts (not classified as sign ballasts) that are designed to operate 8-foot high output lamps.	0.993	0.38	0.25
Programmed start ballasts (not classified as sign ballasts) that are designed to operate 8-foot high output lamps.	0.973	0.70	0.37
Sign ballasts that operate 8-foot high output lamps	0.993	0.47	0.25
Instant start and rapid start residential ballasts that operate	0.993	0.41	0.25
4-foot medium bipin lamps.			
2-foot U-shaped lamps.			
8-foot slimline lamps.			
Programmed start residential ballasts that are designed to operate	0.973	0.71	0.37
4-foot medium bipin lamps.			
2-foot U-shaped lamps.			

(2) Certain Dimming Ballasts. Except as provided in section 1605.1(j)(3) of this Article, each dimming ballast:

(A) Manufactured on or after November 14, 2014; designed and marketed to operate one F34T12, two F34T12, two F96T12/ES, or two F96T12HO/ES lamps; and

(B) Designed and marketed:

1. To operate at nominal input voltages of 120 or 277 volts;

2. To operate with an input current frequency of 60 Hertz; and

3. For use in connection with fluorescent lamps (as defined in 10 C.F.R. part 430, section 430.2);

(C) Must have a power factor of:

1. 0.9 or greater for ballasts that are not residential ballasts; or

2. 0.5 or greater for residential ballasts; and

(D) A ballast luminous efficiency not less than the values shown in Table J-3:

Table J-3
Standards for Certain Dimming Fluorescent Lamp Ballasts, Ballast Luminous Efficiency Applicable to Models Described in section 1605.1(j)(2) of this Article

Designed for the operation of	***Ballast input voltage***	***Total nominal lamp watts***	***Ballast luminous efficiency***	
			Low frequency ballasts	***High frequency ballasts***
One F34T12 lamp	120/277	34	0.777	0.778
Two F34T12 lamps	120/277	68	0.804	0.805
Two F96T12/ES lamps	120/277	120	0.876	0.884
Two F96T12HO/ES lamps	120/277	190	0.711	0.713

Exceptions to Sections 1605.1(j)(1) and 1605.1(j)(2). The power factor and ballast luminous efficiency standards described in sections 1605.1(j)(1) and 1605.1(j)(2) of this Article do not apply to:

(1) a dimming ballast designed and marketed to operate exclusively lamp types other than one F34T12, two F34T12, two F96T12/ES, or two F96T12HO/ES lamps;

(2) a low frequency ballast that is designed and marketed to operate T8 diameter lamps; is designed and marketed for use in electromagnetic-interference-sensitive-environments only; and is shipped by the manufacturer in packages containing 10 or fewer ballasts; or

(3) a programmed start ballast that operates 4-foot medium bipin T8 lamps and delivers on average less than 140 milliamperes to each lamp.

(3) Mercury Vapor Lamp Ballasts. Mercury vapor lamp ballasts, other than specialty application mercury vapor lamp ballasts, shall not be manufactured or imported into the United States after January 1, 2008.

(k) Lamps.

(1) Federally Regulated General Service Fluorescent Lamps.

Each of the following federally regulated general service fluorescent lamps manufactured on or after the effective dates shown shall meet or exceed the lamp efficacy standards shown in Table K-2.

Table K-2
Standards for Federally- Regulated General Service Fluorescent Lamps

Appliance	*Correlated Color Temperature*	*Minimum Average Lamp Efficacy (LPW)*	
		Effective July 15, 2012	*Effective January 26, 2018*
4-foot medium bipin lamps	≤ 4,500K	89	92.4
	> 4,500K and ≤ 7,000K	88	88.7
2-foot U-shaped lamps	≤ 4,500K	84	85.0
	> 4,500K and ≤ 7,000K	81	83.3
8-foot slimline lamps	≤ 4,500K	97	97.0
	> 4,500K and ≤ 7,000K	93	93.0
8-foot high output lamps	≤ 4,500K	92	92.0
	> 4,500K and ≤ 7,000K	88	88.0
4-foot miniature bipin standard output	≤ 4,500K	86	95.0
	> 4,500K and ≤ 7,000K	81	89.3
4-foot miniature bipin high output	≤ 4,500K	76	82.7
	> 4,500K and ≤ 7,000K	72	76.9

(2) Federally Regulated Incandescent Reflector Lamps Manufactured On or After July 15, 2012. The average lamp efficacy of federally-regulated incandescent reflector lamps with a rated lamp wattage between 40-205 watts, and manufactured on or after July 15, 2012 shall be not less than the applicable values shown in Table K-3, subject to the following:

(A) The standards specified in Table K-3 shall apply with respect to:

1. ER incandescent reflector lamps, BR incandescent reflector lamps, BPAR incandescent reflector lamps, and similar bulb shapes on and after January 1, 2008; and

2. Incandescent reflector lamps with a diameter of more than 2.25 inches, but not more than 2.75 inches, on and after June 15, 2008.

EXCEPTION to Section 1605.1(k)(2). The standards specified in Table K-3 shall not apply to the following types of incandescent reflector lamps:

(1) Lamps rated at 50 watts or less that are ER30, BR30, BR40, or ER40;

(2) Lamps rated at 65 watts that are BR30, BR40, or ER40 lamps; or

(3) R20 incandescent reflector lamps rated 45 watts or less

Table K-3
Standards for Federally- Regulated Incandescent Reflector Lamps
Manufactured On or After July 15, 2012

Lamp Spectrum	***Lamp Diameter (inches)***	***Rated Voltage***	***Minimum Average Lamp Efficacy (LPW)[1]***
Standard Spectrum	> 2.5	≥ 125	$6.8 \times P^{0.27}$
		< 125	$5.9 \times P^{0.27}$
	≤ 2.5	≥ 125	$5.7 \times P^{0.27}$
		< 125	$5.0 \times P^{0.27}$
Modified Spectrum	> 2.5	≥ 125	$5.8 \times P^{0.27}$
		< 125	$5.0 \times P^{0.27}$
	≤ 2.5	≥ 125	$4.9 \times P^{0.27}$
		< 125	$4.2 \times P^{0.27}$
[1]P = Rated Lamp Wattage, in Watts			

(3) Medium Base Compact Fluorescent Lamps. A bare or covered lamp (no reflector) medium base compact fluorescent lamp manufactured on or after January 1, 2006, shall meet the requirements set forth in Table K-4.

Table K-4
Standards for Medium Base Compact Fluorescent Lamps

Factor	***Requirements***
Labeled Wattage (Watts) and Configuration[1]	*Measured Initial Lamp Efficacy: lumens/watt must be at least: [2]*
Bare Lamp:	
Labeled Wattage < 15	45.0
Labeled Wattage ≥ 15	60.0
Covered Lamp (no reflector)	
Labeled Wattage < 15	40.0
15 ≥ Labeled Wattage < 19	48.0
19 ≥ Labeled Wattage < 25	50.0
Labeled Wattage ≥ 25	55.0
Lumen Maintenance at 1,000-hours	≥90%
Lumen Maintenance at 40% of Lifetime[2]	80%
Rapid Cycle Stress Test	Each lamp must be cycled once for every two hours of lifetime.[2] At least 5 lamps must meet or exceed the minimum number of cycles.
Lifetime[2]	≥ 6,000
[1] Use labeled wattage to determine the appropriate efficacy requirements in this table; do not use measured wattage for this purpose.	
[2] Lifetime refers to lifetime of a compact fluorescent lamp as defined in section 1602(k) of this Article.	

(4) Federally Regulated General Service Incandescent Lamps and Modified Spectrum General Service Incandescent Lamps. The energy consumption rate of federally regulated general service incandescent lamps and modified spectrum general service incandescent lamps, manufactured on or after the effective dates shown, shall be no greater than the maximum rated wattage shown in Tables K-5 and K-6.

(A) These standards apply to each lamp that:

1. is intended for a general service or general illumination application (whether incandescent or not);

2. has a medium screw base or any other screw base not defined in ANSI C81.61-2006;

3. is capable of being operated at a voltage at least partially within the range of 110 to 130 volts; and

4. is manufactured or imported after December 31, 2011.

(B) Each lamp described in section 1604(k)(4)(A) of this Article shall have a color rendering index that is greater than or equal to:

1. 80 for nonmodified spectrum lamps; or

2. 75 for modified spectrum lamps.

Table K-5
Standards for Federally Regulated General Service Incandescent Lamps

Rated Lumen Ranges	***Maximum Rate Wattage***	***Minimum Rate Lifetime***	***Effective Date***
1490-2600	72	1,000 hours	January 1, 2012
1050 – 1489	53	1,000 hours	January 1, 2013
750 – 1049	43	1,000 hours	January 1, 2014
310 – 749	29	1,000 hours	January 1, 2014

Table K-6
Standards for Federally Regulated Modified Spectrum General Service Incandescent Lamps

Rated Lumen Ranges	***Maximum Rate Wattage***	***Minimum Rate Lifetime***	***Effective Date***
1118-1950	72	1,000 hours	January 1, 2012
788-1117	53	1,000 hours	January 1, 2013
563-787	43	1,000 hours	January 1, 2014
232-562	29	1,000 hours	January 1, 2014

(5) Candelabra Base Incandescent Lamps and Intermediate Base Incandescent Lamps. The energy consumption rate of federally regulated candelabra base incandescent lamps and intermediate base incandescent lamps, manufactured on or after January 1, 2012, shall be no greater than the maximum rated wattage shown in Tables K-7.

Table K-7
Standards for Federally Regulated Candelabra Base Incandescent Lamps and Intermediate Base Incandescent Lamps

Lamp Base Type	***Maximum Rated Wattage***
Candelabra	60
Intermediate	40

(l) Emergency Lighting and Self-Contained Lighting Controls.

(1) Emergency Lighting. An illuminated exit sign~~s~~ manufactured on or after January 1, 2006 shall have an input power demand of five watts or less per face.

(2) Self-Contained Lighting Controls. See section 1605.3(l) of this Article for energy design standards for self-contained lighting controls.

(m) Traffic Signal Modules.

(1) Traffic Signals for Vehicle and Pedestrian Control. Federally regulated traffic signals for vehicle and pedestrian control manufactured on or after January 1, 2006 shall have a nominal wattage and maximum wattage no greater than the values shown in Table M-1, and shall be installed with compatible electrically connected signal control interface devices and conflict monitoring systems.

Table M-1
Standards for Traffic Signals for Vehicle and Pedestrian Control

Appliance	***Maximum Wattage (at 74°C)***	***Nominal Wattage (at 25°C)***
Traffic Signal Module Type:		
12-inch; Red Ball	17	11
8-inch; Red Ball	13	8
12-inch; Red Arrow	12	9
12-inch; Green Ball	15	15
8-inch; Green Ball	12	12
12-inch; Green Arrow	11	11
Pedestrian Module Type:		
Combination Walking Man/Hand	16	13
Walking Man	12	9
Orange Hand	16	13

(2) See section 1605.3(m) of this Article for energy efficiency standards for traffic signal modules for pedestrian control sold or offered for sale in California.

(n) Luminaires and Torchieres.

(1) Torchieres. Torchieres manufactured on or after January 1, 2006 shall consume not more than 190 watts of power and shall not be capable of operating with lamps that total more than 190 watts.

(2) Metal Halide Lamp Fixtures.

(A) See section 1605.3(n) of this Article for energy efficiency standards and energy design standards for luminaires, including standards for metal halide luminaires sold or offered for sale in California that are manufactured on or after January 1, 2010.

(B) Each metal halide lamp fixture, designed to be operated with lamps less than 150 W and greater than 500 W, manufactured on or after February 10, 2017, must contain a metal halide ballast with an efficiency not less than the value determined from the appropriate equation shown in Table N-1.

Table N-1
Standards for Metal Halide Lamp Fixtures Manufactured On or After February 10, 2017

Designed to be operated with lamps of the following rated lamp wattage	***Tested input voltage‡‡***	***Minimum standard equation‡‡ %***
≥50 W and ≤ 100 W	Tested at 480 V	(1/(1+1.24×P^(-0.351))) – 0.020††;
≥50 W and ≤ 100 W	All Others	1/1+1.24×P^(-0.351))
>100 W and <150†; W	Tested at 480 V	(1/(1+1.24×P^(-0.351))) – 0.020
>100 W and <150†; W	All Others	1/1+1.24×P^(-0.351))
>500 W and ≤1000 W	Tested at 480 V	For >500 W and ≤750 W: 0.900
		For >750 W and ≤1000 W: 0.000104×P+0.822
		For >500 W and ≤1000 W: may not utilize a probe-start ballast
>500 W and ≤1000 W	All Others	For >500 W and ≤750 W: 0.910
		For >750 W and ≤1000 W: 0.000104×P+0.832
		For >500 W and ≤1000 W: may not utilize a probe-start ballast
† Includes 150 W fixtures specified in 10 C.F.R. section 431.326(b)(3), that are fixtures rated only for 150 W lamps; rated for use in wet locations, as specified by the NFPA 70, section 410.4(A); and containing a ballast that is rated to operate at ambient air temperatures above 50°C, as specified by UL 1029.		
†† P is defined as the rated wattage of the lamp the fixture is designed to operate.		
‡‡ Tested input voltage is specified in 10 C.F.R section 431.324.		

(C) Metal halide lamp fixtures manufactured on or after February 10, 2017, that operate lamps with rated wattage > 500 W to ≤ 1000 W must not contain a probe-start metal halide ballast.

EXCEPTION to Sections 1605.1(n)(2)(B) and 1605.1(n)(2)(C). The standards described in sections 1605.1(n)(2)(B) and 1605.1(n)(2)(C) of this Article do not apply to metal halide lamp fixtures:

(1) with regulated-lag ballasts;

(2) that use electronic ballasts that operate at 480 volts; and

(3) that use high-frequency electronic ballasts.

(o) Dishwashers.

The maximum energy use and maximum water use of dishwashers that are consumer products manufactured on or after the effective dates shown shall meet the applicable values shown in Table O.

Table O
Standards for Dishwashers

Appliance	***Effective May 30, 2013***	
	Maximum Energy Use (kWh/year)	***Maximum Water Use (gallons/cycle)***
Compact dishwashers	222	3.5
Standard dishwashers	307	5.0

(p) Clothes Washers.

(1) Standards for Residential Clothes Washers. Clothes washers that are consumer products manufactured on or after the effective dates shown shall have an integrated modified energy factor not less than, and an integrated water factor not greater than the applicable values shown in Table P-1.

Table P-1
Standards for Residential Clothes Washers Manufactured On or After March 7, 2015

Appliance	***Minimum Integrated Modified Energy Factor***		***Maximum Integrated Water Factor***	
	March 7, 2015	***January 1, 2018***	***March 7, 2015***	***January 1, 2018***
Top-loading, Compact	0.86	1.15	14.4	12.0
Top-loading, Standard	1.29	1.57	8.4	6.5
Front-loading, Compact	1.13	1.13	8.3	8.3
Front-loading, Standard	1.84	1.84	4.7	4.7

(2) Commercial Clothes Washers. Commercial clothes washers manufactured on or after the effective dates shown shall have a modified energy factor not less than, and a water factor not greater than, the applicable values shown in Table P-2.

Table P-2
Standards for Commercial Clothes Washers

Appliance	***Minimum Modified Energy Factor***	***Maximum Water Factor***
	Effective January 8, 2013	***Effective January 8, 2013***
Top-loading clothes washers	1.60	8.5
Front-loading clothes washers	2.00	5.5
	Modified Energy Factor (MEF) ft^3kWh/cycle	***Integrated Water Factor (IWF) gal./ft^3cycle***
	Effective January 1, 2018	***Effective January 1, 2018***
Top-loading clothes washers	1.35	8.8
Front-loading clothes washers	2.00	4.1

(q) Clothes Dryers.

Energy Efficiency Standards for Vented Electric Clothes Dryers, Ventless Electric Clothes Dryers, and Vented Gas Clothes Dryers. The combined energy factor of vented electric clothes dryers that are consumer products, ventless electric clothes dryers that are consumer products, and vented gas clothes dryers that are consumer products, and that are manufactured on or after January 1, 2015 shall be not less than the applicable values shown in Table Q.

Table Q
Standards for Vented Electric Clothes Dryers, Ventless Electric Clothes Dryers, and Vented Gas Clothes Dryers Manufactured On or After January 1, 2015

Appliance	***Minimum Combined Energy Factor (lbs/kWh)***	
	Vented	***Ventless***
Electric, standard clothes dryers	3.73	--
Electric, compact, 120 volt clothes dryers	3.61	--
Electric, compact, 240 volt clothes dryers	3.27	2.55
Electric, combination washer-dryer	--	2.08
Gas clothes dryers	3.30	--

(r) Cooking Products and Food Service Equipment.

(1) Energy Design Standard for Gas Cooking Products.

(A) Gas Cooking Products Equipped with an Electrical Supply Cord. Gas cooking products that are consumer products and that are equipped with an electrical supply cord shall not be equipped with a constant burning pilot light.

(B) Gas Cooking Products Not Equipped with an Electrical Supply Cord. Gas cooking products that are consumer products manufactured on or after April 9, 2012 and that are not equipped with an electrical supply cord shall not be equipped with a constant burning pilot light.

(2) Microwave Ovens Manufactured On or After June 17, 2016.

Microwave-only ovens, countertop convection microwave ovens, built-in microwave ovens, and over-the-range convection microwave ovens manufactured on or after June 17, 2016 shall not exceed the average standby power rating (watts) shown in Table R-2.

Table R-2
Standards for Microwave Ovens Manufactured On or After June 17, 2016

Appliance	***Maximum Standby Power (Watts)***
Microwave-only oven	1.0
Countertop convection microwave oven	1.0
Built-in microwave oven	2.2
Over-the-range convection microwave oven	2.2

(3) Hot Food Holding Cabinets. See section 1605.3(r) of this Article for energy efficiency standards for commercial hot food holding cabinets.

(4) Other Cooking Products and Food Service Equipment. There is no energy efficiency standard or energy design standard for other cooking products or for food service equipment.

(s) Electric Motors and Compressors.

(1) Standards for Electric Motors. The standards shown in Tables S-1, S-2, and S-3 of this Article apply only to electric motors, including partial electric motors that satisfy the following criteria:

(A) Are single-speed, induction motors;

(B) Are rated for continuous duty (MG 1) operation or for duty type S1 (IEC);

(C) Contain a squirrel-cage (MG 1) or cage (IEC) rotor;

(D) Operate on polyphase alternating current 60-hertz sinusoidal line power;

(E) Are rated 600 volts or less;

(F) Have a 2-, 4-, 6-, or 8-pole configuration,

(G) Are built in a three-digit or four-digit NEMA frame size (or IEC metric equivalent), including those designs between two consecutive NEMA frame sizes (or IEC metric equivalent), or an enclosed 56 NEMA frame size (or IEC metric equivalent),

(H) Produce at least one horsepower (0.746 kW) but not greater than 500 horsepower (373 kW), and

(I) Meet all of the performance requirements of one of the following motor types: A NEMA Design A, B, or C motor or an IEC Design N or H motor.

(2) NEMA Design A Motors, NEMA Design B Motors, and IEC Design N Motors. Starting on June 1, 2016, each NEMA Design A motor, NEMA Design B motor, and IEC Design N motor that is an electric motor meeting the criteria in section 1605.1(s)(1) of this Article and with a power rating from 1 horsepower through 500 horsepower, but excluding fire pump electric motors, manufactured (alone or as a component of another piece of equipment) shall have a nominal full-load efficiency of not less than the values shown in Table S-1:

Table S-1
Minimum Nominal Full-Load Efficiencies of NEMA Design A, NEMA Design B and IEC Design N Motors (Excluding Fire Pump Electric Motors) at 60 Hz

Motor horsepower/ standard kilowatt equivalent	**Nominal full-load efficiency (%)**							
	2 Pole		**4 Pole**		**6 Pole**		**8 Pole**	
	Enclosed	**Open**	**Enclosed**	**Open**	**Enclosed**	**Open**	**Enclosed**	**Open**
1/.75	77.0	77.0	85.5	85.5	82.5	82.5	75.5	75.5
1.5/1.1	84.0	84.0	86.5	86.5	87.5	86.5	78.5	77.0
2/1.5	85.5	85.5	86.5	86.5	88.5	87.5	84.0	86.5
3/2.2	86.5	85.5	89.5	89.5	89.5	88.5	85.5	87.5
5/3.7	88.5	86.5	89.5	89.5	89.5	89.5	86.5	88.5
7.5/5.5	89.5	88.5	91.7	91.0	91.0	90.2	86.5	89.5
10/7.5	90.2	89.5	91.7	91.7	91.0	91.7	89.5	90.2
15/11	91.0	90.2	92.4	93.0	91.7	91.7	89.5	90.2
20/15	91.0	91.0	93.0	93.0	91.7	92.4	90.2	91.0
25/18.5	91.7	91.7	93.6	93.6	93.0	93.0	90.2	91.0
30/22	91.7	91.7	93.6	94.1	93.0	93.6	91.7	91.7
40/30	92.4	92.4	94.1	94.1	94.1	94.1	91.7	91.7
50/37	93.0	93.0	94.5	94.5	94.1	94.1	92.4	92.4
60/45	93.6	93.6	95.0	95.0	94.5	94.5	92.4	93.0
75/55	93.6	93.6	95.4	95.0	94.5	94.5	93.6	94.1
100/75	94.1	93.6	95.4	95.4	95.0	95.0	93.6	94.1
125/90	95.0	94.1	95.4	95.4	95.0	95.0	94.1	94.1
150/110	95.0	94.1	95.8	95.8	95.8	95.4	94.1	94.1
200/150	95.4	95.0	96.2	95.8	95.8	95.4	94.5	94.1
250/186	95.8	95.0	96.2	95.8	95.8	95.8	95.0	95.0
300/224	95.8	95.4	96.2	95.8	95.8	95.8		
350/261	95.8	95.4	96.2	95.8	95.8	95.8		
400/298	95.8	95.8	96.2	95.8				
450/336	95.8	96.2	96.2	96.2				
500/373	95.8	96.2	96.2	96.2				

(3) NEMA Design C motors and IEC Design H motors. Starting on June 1, 2016, each NEMA Design C motor and IEC Design H motor that is an electric motor meeting the criteria in section 1605.1(s)(1) of this Article and with a power rating from 1 horsepower through 200 horsepower manufactured (alone or as a component of another piece of equipment) shall have a nominal full-load efficiency that is not less than the values shown in Table S-2:

Table S-2
Minimum Nominal Full-Load Efficiencies of NEMA Design C and IEC Design H Motors at 60 Hz

Motor horsepower/ standard kilowatt equivalent	**Nominal full-load efficiency (%)**					
	4 Pole		**6 Pole**		**8 Pole**	
	Enclosed	**Open**	**Enclosed**	**Open**	**Enclosed**	**Open**
1/.75	85.5	85.5	82.5	82.5	75.5	75.5
1.5/1.1	86.5	86.5	87.5	86.5	78.5	77.0
2/1.5	86.5	86.5	88.5	87.5	84.0	86.5
3/2.2	89.5	89.5	89.5	88.5	85.5	87.5
5/3.7	89.5	89.5	89.5	89.5	86.5	88.5
7.5/5.5	91.7	91.0	91.0	90.2	86.5	89.5
10/7.5	91.7	91.7	91.0	91.7	89.5	90.2
15/11	92.4	93.0	91.7	91.7	89.5	90.2
20/15	93.0	93.0	91.7	92.4	90.2	91.0
25/18.5	93.6	93.6	93.0	93.0	90.2	91.0
30/22	93.6	94.1	93.0	93.6	91.7	91.7
40/30	94.1	94.1	94.1	94.1	91.7	91.7
50/37	94.5	94.5	94.1	94.1	92.4	92.4
60/45	95.0	95.0	94.5	94.5	92.4	93.0
75/55	95.4	95.0	94.5	94.5	93.6	94.1
100/75	95.4	95.4	95.0	95.0	93.6	94.1
125/90	95.4	95.4	95.0	95.0	94.1	94.1
150/110	95.8	95.8	95.8	95.4	94.1	94.1
200/150	96.2	95.8	95.8	95.4	94.5	94.1

(4) Fire Pump Electric Motors. Starting on June 1, 2016, each fire pump electric motor meeting the criteria in section 1605.1(s)(1) of this Article and with a power rating of 1 horsepower through 500 horsepower, manufactured (alone or as a component of another piece of equipment) shall have a nominal full-load efficiency that is not less than the values shown in Table S-3

Table S-3
Minimum Nominal Full-Load Efficiencies of Fire Pump Electric Motors at 60 Hz

Motor horsepower/ standard kilowatt equivalent	**Nominal full-load efficiency (%)**							
	2 Pole		**4 Pole**		**6 Pole**		**8 Pole**	
	Enclosed	**Open**	**Enclosed**	**Open**	**Enclosed**	**Open**	**Enclosed**	**Open**
1/.75	75.5		82.5	82.5	80.0	80.0	74.0	74.0
1.5/1.1	82.5	82.5	84.0	84.0	85.5	84.0	77.0	75.5
2/1.5	84.0	84.0	84.0	84.0	86.5	85.5	82.5	85.5
3/2.2	85.5	84.0	87.5	86.5	87.5	86.5	84.0	86.5
5/3.7	87.5	85.5	87.5	87.5	87.5	87.5	85.5	87.5
7.5/5.5	88.5	87.5	89.5	88.5	89.5	88.5	85.5	88.5
10/7.5	89.5	88.5	89.5	89.5	89.5	90.2	88.5	89.5
15/11	90.2	89.5	91.0	91.0	90.2	90.2	88.5	89.5
20/15	90.2	90.2	91.0	91.0	90.2	91.0	89.5	90.2
25/18.5	91.0	91.0	92.4	91.7	91.7	91.7	89.5	90.2
30/22	91.0	91.0	92.4	92.4	91.7	92.4	91.0	91.0
40/30	91.7	91.7	93.0	93.0	93.0	93.0	91.0	91.0
50/37	92.4	92.4	93.0	93.0	93.0	93.0	91.7	91.7
60/45	93.0	93.0	93.6	93.6	93.6	93.6	91.7	92.4
75/55	93.0	93.0	94.1	94.1	93.6	93.6	93.0	93.6
100/75	93.6	93.0	94.5	94.1	94.1	94.1	93.0	93.6
125/90	94.5	93.6	94.5	94.5	94.1	94.1	93.6	93.6
150/110	94.5	93.6	95.0	95.0	95.0	94.5	93.6	93.6
200/150	95.0	94.5	95.0	95.0	95.0	94.5	94.1	93.6
250/186	95.4	94.5	95.0	95.4	95.0	95.4	94.5	94.5
300/224	95.4	95.0	95.4	95.4	95.0	95.4		
350/261	95.4	95.0	95.4	95.4	95.0	95.4		
400/298	95.4	95.4	95.4	95.4				
450/336	95.4	95.8	95.4	95.8				
500/373	95.4	95.8	95.8	95.8				

EXCEPTIONS to Sections 1605.1(s)(2), 1605.1(s)(3), and 1605.1(s)(4). The standards in Tables S-1, S-2 or S-3 of this Article do not apply to the following electric motors exempted by the Secretary, or any additional electric motors that the Secretary may exempt:

(A) Air-over electric motors;

(B) Component sets of an electric motor;

(C) Liquid-cooled electric motors;

(D) Submersible electric motors; and

(E) Inverter-only electric motors.

(5) Small Electric Motors. The average full load efficiency of each small open electric motor manufactured (alone or as a component of another piece of non-covered equipment) after March 9, 2015, or in the case of a small electric motor which requires listing or certification by a nationally recognized safety testing laboratory, after March 9, 2017, shall be not less than the values shown in Table S-4:

Table S-4
Standards for Small Electric Motors

Motor Horsepower/ Standard Kilowatt Equivalent	***Minimum Average Full-Load Efficiency***					
	Polyphase			***Capacitor-start capacitor-run and capacitor-start induction-run Motors***		
	6 poles	***4 poles***	***2 poles***	***6 poles***	***4 poles***	***2 poles***
0.25/0.18	67.5	69.5	65.6	62.2	68.5	66.6
0.33/0.25	71.4	73.4	69.5	66.6	72.4	70.5
0.5/0.37	75.3	78.2	73.4	76.2	76.2	72.4
0.75/0.55	81.7	81.1	76.8	80.2	81.8	76.2
1.0/0.75	82.5	83.5	77.0	81.1	82.6	80.4
1.5/1.1	83.8	86.5	84.0	. . .	83.8	81.5
2.0/1.5	. . .	86.5	85.5	. . .	84.5	82.9
3.0/2.2	. . .	86.9	85.5	. . .	. . .	84.1

(6) Determinations of Efficiency. For purposes of determining the required minimum nominal full load efficiency of an electric motor that has a horsepower or kilowatt rating between two horsepower or two kilowatt ratings shown in Tables S-1, S-2, or S-3, or of determining the required minimum average full load efficiency of a small electric motor that has a horsepower or kilowatt rating between two horsepower or kilowatt ratings shown in Table S-4, each such motor shall be deemed to have a listed horsepower or kilowatt rating determined as follows:

(A) A horsepower at or above the midpoint between the two consecutive horsepower ratings shall be rounded up to the higher of the two horsepower ratings;

(B) A horsepower below the midpoint between the two consecutive horsepower ratings shall be rounded down to the lower of the two horsepower ratings; or

(C) A kilowatt rating shall be directly converted from kilowatts to horsepower using the formula, 1 kilowatt = (1/0.746) horsepower, without calculating beyond three significant decimal places, and the resulting horsepower shall be rounded in accordance with sections 1605.1(s)(6)(A) or 1605.1(s)(6)(B) of this Article, whichever applies.

(7) Compressors. There are no standards for federally regulated compressors.

(t) Distribution Transformers.

(1) Low-Voltage Dry-Type Distribution Transformers. The efficiency of a low-voltage dry-type distribution transformer manufactured on or after January 1, 2016 shall be not less than that required for their kVA rating as shown in Table T-3. Low-voltage dry-type distribution transformers with kVA ratings not appearing in Table T-3 shall have their minimum efficiency determined by linear interpolation of the kVA and efficiency values immediately above and below that kVA rating.

Table T-3
Standards for Low-Voltage Dry-Type Distribution Transformers

Single phase		***Three phase***	
kVa	***Efficiency (%)[1]***	***kVa***	***Efficiency (%)[1]***
15	97.70	15	97.89
25	98.00	30	98.23
37.5	98.20	45	98.40
50	98.30	75	98.60
75	98.50	112.5	98.74
100	98.60	150	98.83
167	98.70	225	98.94
250	98.80	300	99.02
333	98.90	500	99.14
		750	99.23
		1000	99.28
[1] All efficiency values are at 35 percent of nameplate-rated load, determined according to the DOE Test Method for Measuring the Energy Consumption of Distribution Transformers under Appendix A to subpart K of 10 C.F.R. part 431.			

(2) Liquid-Immersed Distribution Transformers. The efficiency of a liquid- immersed distribution transformer manufactured on or after January 1, 2016 shall be no less than that required for their kVA rating as shown in Table T-4. Liquid-immersed distribution transformers with kVA ratings not appearing in Table T-4 shall have their minimum efficiency level determined by linear interpolation of the kVA and efficiency values immediately above and below that kVA rating.

Table T-4
Standards for Liquid-Immersed Distribution Transformers

Single phase		***Three phase***	
kVa	***Efficiency (%)[1]***	***kVa***	***Efficiency (%)[1]***
10	98.70	15	98.65
15	98.82	30	98.83
25	98.95	45	98.92
37.5	99.05	75	99.03
50	99.11	112.5	99.11
75	99.19	150	99.16
100	99.25	225	99.23
167	99.33	300	99.27
250	99.39	500	99.35
333	99.43	750	99.40
500	99.49	1000	99.43
667	99.52	1500	99.48
833	99.55	2000	99.51
		2500	99.53
[1] Note: All efficiency values are at 50 percent of nameplate-rated load, determined according to the DOE Test Method for Measuring the Energy Consumption of Distribution Transformers under Appendix A to subpart K of 10 CFR part 431.			

(3) Medium-Voltage Dry-Type Distribution Transformers. The efficiency of a medium-voltage dry-type distribution transformer manufactured on or after January 1, 2016, shall be no less than that required for their kVA and BIL rating in Table T-5. Medium-voltage dry-type distribution transformers with kVA ratings not appearing in Table T-5 shall have their minimum efficiency level determined by linear interpolation of the kVA and efficiency values immediately above and below that kVA rating.

Table T-5
Standards for Medium-Voltage Dry-Type Distribution Transformers
Manufactured On or After January 1, 2016

Single phase				***Three phase***			
	BIL				***BIL***		
kVA	***20-45 kV Efficiency[1] (%)***	***46-95 kV efficiency[1] (%)***	***≥ 96 kV efficiency[1] (%)***	***BIL kVA***	***20-45 kV Efficiency[1] (%)***	***46-95 kV efficiency[1] (%)***	***≥ 96 kV efficiency[1] (%)***
15	98.10	97.86		15	97.50	97.18	
25	98.33	98.12		30	97.90	97.63	
37.5	98.49	98.30		45	98.10	97.86	
50	98.60	98.42		75	98.33	98.13	
75	98.73	98.57	98.53	112.5	98.52	98.36	
100	98.82	98.67	98.63	150	98.65	98.51	
167	98.96	98.83	98.80	225	98.82	98.69	98.57
250	99.07	98.95	98.91	300	98.93	98.81	98.69
333	99.14	99.03	98.99	500	99.09	98.99	98.89
500	99.22	99.12	99.09	750	99.21	99.12	99.02
667	99.27	99.18	99.15	1000	99.28	99.20	99.11
833	99.31	99.23	99.20	1500	99.37	99.30	99.21
				2000	99.43	99.36	99.28
				2500	99.47	99.41	99.33

[1] All efficiency values are at 50 percent of nameplate rated load, determined according to the DOE Test Method for Measuring the Energy Consumption of Distribution Transformers under Appendix A to subpart K of 10 CFR part 431.

(u) External Power Supplies.

(1) Class A External Power Supplies. Except as provided in subsections 1605.1(u)(4) and 1605.1(u)(7) of this Article, all Class A external power supplies manufactured on or after July 1, 2008, shall meet the standards shown in Table U-1:

Table U-1
Standards for Class A External Power Supplies

Active Mode	
Nameplate Output	***Required efficiency (decimal equivalent of a percentage)***
Less than 1 watt	0.5 times the Nameplate output
From 1 watt to not more than 51 watts	The sum of 0.09 times the Natural Logarithm of the Nameplate Output and 0.5
Greater than 51 watts	0.85
Not more than 250 watts	0.5

(2) Direct Operation External Power Supplies. Except as provided in subsections 1605.1(u)(7) and 1605.1(u)(8) of this Article, all direct operation external power supplies manufactured on or after February 10, 2016, shall meet the standards shown in Table U-2:

Table U-2
Standards for Direct Operation External Power Supplies

Power Supply Type	***Nameplate Output Power (P_{out})***	***Minimum Average Efficiency in Active Mode****	***Maximum Power in No Load Mode [W]***
Single Voltage External AC-DC Power Supply, Basic Voltage	$P_{out} \leq 1$ W	$\geq 0.5 \times P_{out} + 0.16$	≤ 0.100
	1 W ≤ P_{out} ≤ 49 W	$\geq 0.071 \times \ln(P_{out}) - 0.0014 \times P_{out} + 0.67$	≤ 0.100
	49 W ≤ P_{out} ≤ 250 W	≥ 0.880	≤ 0.210
	P_{out} > 250 W	≥ 0.875	≤ 0.500
Single Voltage External AC-DC Power Supply, Low Voltage	$P_{out} \leq 1$ W	$\geq 0.517 \times P_{out} + 0.087$	≤ 0.100
	1 W ≤ P_{out} ≤ 49 W	$\geq 0.0834 \times \ln(P_{out}) - 0.0014 \times P_{out} + 0.609$	≤ 0.100
	49 W ≤ P_{out} ≤ 250 W	≥ 0.870	≤ 0.210
	P_{out} > 250 W	≥ 0.875	≤ 0.500
Single Voltage External AC-AC Power Supply, Basic Voltage	$P_{out} \leq 1$ W	$\geq 0.5 \times P_{out} + 0.16$	≤ 0.210
	1 W ≤ P_{out} ≤ 49 W	$\geq 0.071 \times \ln(P_{out}) - 0.0014 \times P_{out} + 0.67$	≤ 0.210
	49 W ≤ P_{out} ≤ 250 W	≥ 0.880	≤ 0.210
	P_{out} > 250 W	≥ 0.875	≤ 0.500
Single Voltage External AC-AC Power Supply, Low Voltage	$P_{out} \leq 1$ W	$\geq 0.517 \times P_{out} + 0.087$	≤ 0.210
	1 W ≤ P_{out} ≤ 49 W	$\geq 0.0834 \times \ln(P_{out}) - 0.0014 \times P_{out} + 0.609$	≤ 0.210
	49 W ≤ P_{out} ≤ 250 W	≥ 0.870	≤ 0.210
	P_{out} > 250 W	≥ 0.875	≤ 0.500
Multiple Voltage External Power Supply	$P_{out} \leq 1$ W	$\geq 0.497 \times P_{out} + 0.067$	≤ 0.300
	1 W ≤ P_{out} ≤ 49 W	$\geq 0.075 \times \ln(P_{out}) + 0.561$	≤ 0.300
	P_{out} > 49 W	≥ 0.860	≤ 0.300
* Expressed as a decimal.			

(3) All External Power Supplies Manufactured On or After February 10, 2016. Except as provided in subsections 1605.1(u)(7) and 1605.1(u)(8) of this Article, all direct operation external power supplies manufactured on or after February 10, 2016, shall meet the standards shown in Table U-3:

Table U-3
Standards for All External Power Supplies
Manufactured On or After February 10, 2016

Operation EPS Type	***Class A EPS***	***Non-Class A EPS***
Direct Operation EPS	Level VI: 10 C.F.R. 430.32 (w)(1)(ii)	Level VI 10 C.F.R. 430.32(w)(1)(ii)
Indirect Operation EPS	Level VI: 10 C.F.R. 430.32 (w)(1)(i)	No standards

(4) Exclusions. A basic model of external power supply is not subject to the energy conservation standards of section 1605.1(u)(2) of this Article if the external power supply:

(A) Is manufactured during the period beginning on February 10, 2016, and ending on February 10, 2020;

(B) Is marked in accordance with the External Power Supply International Efficiency Marking Protocol, as in effect on February 10, 2016;

(C) Meets, where applicable, the standards under section 1605.1(u)(1) of this Article, and has been certified to the Secretary as meeting those standards; and

(D) Is made available by the manufacturer only as a service part or a spare part for an end-use product that:

1. constitutes the primary load; and

2. was manufactured before February 10, 2016.

(5) End Use Product Exclusion. The standards described in sections 1605.1(u)(1), 1605.1(u)(2), and 1605.1(u)(3) of this Article shall not constitute an energy conservation standard for the separate end-use product to which the external power supply is connected.

(6) Non-application of no-load mode requirements. The no-load mode energy efficiency standards established in sections 1605.1(u)(1), 1605.1(u)(2), and 1605.1(u)(3) of this Article shall not apply to an external power supply manufactured before July 1, 2017, that:

(A) Is an AC-to-AC external power supply;

(B) Has a nameplate output of 20 watts or more;

(C) Is certified to the Secretary as being designed to be connected to a security or life safety alarm or surveillance system component; and

(D) On establishment within the External Power Supply International Efficiency Marking Protocol, as referenced in the "Energy Star Program Requirements for Single Voltage External Ac-Dc and Ac-Ac Power Supplies" (incorporated by reference in 10 C.F.R. section 430.3), published by the Environmental Protection Agency, of a distinguishing mark for products described in this clause, is permanently marked with the distinguishing mark.

(7) FDA Listing. An external power supply shall not be subject to the standards in sections 1605.1(u)(1), 1605.1(u)(2), and 1605.1(u)(3) of this Article if it is a device that requires Federal Food and Drug Administration (FDA) listing and approval as a medical device in accordance with section 513 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 360(c)).

(8) Exclusion of Battery Chargers Used in a Product that is Fully or Primarily Motor Operated. A direct operation, AC-DC external power supply with nameplate output voltage less than 3 volts and nameplate output current greater than or equal to 1,000 milliamps that charges the battery of a product that is fully or primarily motor operated shall not be subject to the standards in section 1605.1(u)(2) of this Article.

(v) Computers, Computer Monitors, Televisions, Signage Displays, and Consumer Audio and Video Equipment.

See section 1605.3(v) of this Article for energy efficiency standards for computers, computer monitors, televisions, signage displays, and consumer audio and video equipment.

(w) Battery Chargers and Battery Charger Systems.

(1) Federally Regulated Battery Chargers Manufactured on or after June 13, 2018. Federally regulated battery chargers manufactured on or after June 13, 2018 must have a unit energy consumption (UEC) less than or equal to the prescribed "Maximum UEC" standard when using the equations for the appropriate product class and corresponding rated battery energy as shown in Table W-1:

Table W-1
Standards for Federally Regulated Battery Chargers
Manufactured on or after June 13, 2018

Product Class	***Product Class Description***	***Rated Battery Energy (E_{batt}**)***	***Special characteristic or battery voltage***	***Maximum UEC (kWh/yr) (as a function of E_{batt}**)***
1	Low-Energy	≤ 5 Wh	Inductive Connection*	3.04
2	Low-Energy, Low-Voltage	< 100 Wh	< 4 V	0.1440 * E_{batt} + 2.95
3	Low-Energy, Medium-Voltage	< 10 Wh	≥ 4 V and ≤ 10 V	1.42 kWh/year
		≥ 10 Wh		0.0255 * E_{batt} + 1.16
4	Low-Energy High-Voltage		> 10 V	0.11 * E_{batt} + 3.18
5	Medium-Energy Low-Voltage	≥100 Wh and ≤ 3000 Wh	< 20 V	0.0257 * E_{batt} + 0.815
6	Medium-Energy High-Voltage		≥ 20 V	0.0778 * E_{batt} + 2.4
7	High-Energy	> 3000 Wh		0.0502 * E_{batt} + 4.53

*Inductive connection and designed for use in a wet environment (*e.g.* electric toothbrushes).
**E_{batt} = Rated battery energy as determined in 10 C.F.R. part 429.39(a).

EXCEPTIONS: to Battery Charger Standards in section 1605.1(w)(1) of this Article. A battery charger shall not be subject to the standards in section 1605.1(w)(1) of this Article if it is a device that requires Federal Food and Drug Administration (FDA) listing and approval as a life-sustaining or life-supporting device in accordance with section 513 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 360(c)).

(2) See section 1605.3(w) of this Article for energy efficiency standards for battery charger systems.

The following documents are incorporated by reference in section 1605.1.

Number	*Title*

FEDERAL STATUTES AND REGULATIONS

C.F.R., Title 10, section 429.39(a)
C.F.R., Title 10, section 429.44
C.F.R., Title 10, section 429.59
C.F.R., Title 10, part 430, subpart B, appendix AA
C.F.R., Title 10, part 430.2
C.F.R., Title 10, part 430.3
C.F.R., Title 10, sections 430.23(a) (Appendix A to subpart B of part 430)
C.F.R., Title 10, sections 430.23(b) (Appendix B to subpart B of part 430)
C.F.R., Title 10, section 430.32(c)
C.F.R., Title 10, section 430.32(d)
C.F.R., Title 10, section 430.32 (w)(1)
C.F.R., Title 10, sections 431.63
C.F.R., Title 10, sections 431.66(d)(2)(i) through (iii)
C.F.R., Title 10, section 431.110
C.F.R., Title 10, section 431.324
C.F.R., Title 10, section 431.326(b)(3)
C.F.R., Title 10, section 431.462
C.F.R., Title 10, part 431, subpart K, Appendix A
C.F.R., Title 10, section 431.465(c)(6)
C.F.R., Title 10, part 431, subpart Y, Appendix A, Section II.B
C.F.R., Title 10, part 50, “Domestic Licensing of Production and Utilization Facilities”

Copies available from:	Superintendent of Documents U.S. Government Printing Office Washington, DC 20402 www.ecfr.gov

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA)

	EPA “External Power Supply International Efficiency Marking Protocol”
Copies available from:	US EPA Climate Protection Partnership ENERGY STAR Programs Hotline & Distribution (MS-6202J) 1200 Pennsylvania Ave NW Washington, DC 20460 www.energystar.gov

AIR-CONDITIONING, HEATING, AND REFRIGERATION INSTITUTE (AHRI)

AHRI 1200-2006	Performance Rating of Commercial Refrigerated Display Merchandisers and Storage Cabinets
Copies available from:	Air-Conditioning, Heating, and Refrigeration Institute (AHRI) 2111 Wilson Blvd, Suite 500 Arlington, VA 22201 Phone: (703) 524-8800 FAX: (703) 562-1942 http://www.ahrinet.org

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI C78.5	Standard for Electric Lamps – Specifications for Performance of Self-Ballasted Compact Fluorescent Lamps
Copies available from:	American National Standards Institute 1819 L Street, NW, 6th Floor Washington, DC 20036 www.ansi.org Phone: (202) 293-8020 FAX: (202) 293-9287

ILLUMINATING ENGINGEERING SOCIETY (IES)

UL 1029-2001	Standard for High-Intensity-Discharge
Copies available from:	Illuminating Engineering Society 120 Wall Street, 17th Floor New York, NY 10005-4001 www.ies.org Phone: (212) 248-5000 FAX: (212) 248-5017/18

NATIONAL ELECTRIC CODE (NEC)

NFPA 70 (2002)	National Electrical Code section 410.4(A)
Copies available from:	National Fire Protection Association 1 Batterymarch Park Quincy, MA 02169-7471 www.nfpa.org Phone: (617) 770-3000 FAX: (617) 770-0700

NATIONAL ELECTRIC MANUFACTURERS ASSOCIATION (NEMA)

NEMA Standard TP-1-2002, Table 4-2	Guide for Determining Energy Efficiency of Distribution Transformers
Copies available from:	National Electric Manufacturers Association 1300 N. 17th Street, Suite 1847 Rosslyn, VA 22209 www.nema.org Phone: (703) 841-3200 FAX: (703) 841-3300

UNDERWRITERS LABS (UL)

UL 1029-2001	Standard for High-Intensity-Discharge Lamp Ballasts

Copies available from: Underwriters Laboratories, Inc.
333 Pfingsten Road
Northbrook, IL 60062-2096
www.ul.com
Phone: (847) 272-8800
FAX: (847) 272-8129

Note: Authority cited: Sections 25213, 25218(e), 25402(a)-25402(c) and 25960, Public Resources Code; and sections 16, 26 and 30, Governor's Exec. Order No. B-29-15 (April 1, 2015). Reference: Sections 25216.5(d), 25402(a)-25402(c) and 25960, Public Resources Code; and section 16, Governor's Exec. Order No. B-29-15 (April 1, 2015).

§ 1605.2. State Standards for Federally-Regulated Appliances.

(a) Refrigerators, Refrigerator-Freezers and Freezers.

(1) Federally Regulated Refrigerators, Refrigerator-Freezers, Freezers, and Other Refrigeration Equipment. See section 1605.1(a) of this Article for energy efficiency standards and energy design standards for:

(A) consumer refrigeration products including

1. miscellaneous refrigeration, including but not limited to coolers manufactured on or after October 28, 2019;

(B) commercial refrigerators, commercial freezers, commercial refrigerator-freezers including hybrid commercial refrigerator-freezers; automatic commercial ice makers; walk-in coolers and walk-in freezers; and refrigerated canned and bottled beverage vending machines.

(2) Coolers, Freezers, and Water Dispensers. See section 1605.3(a) of this Article for energy efficiency standards and energy design standards for:

(A) consumer refrigeration coolers manufactured before October 28, 2019;

(B) freezers that exceed 30 ft^3, do not exceed 39 ft^3, and that are consumer products; and

(C) water dispensers.

(b) Room Air Conditioners, Room Air Conditioning Heat Pumps, Packaged Terminal Air Conditioners, and Packaged Terminal Heat Pumps.

See section 1605.1(b) of this Article for energy efficiency standards for room air conditioners, room air-conditioning heat pumps, packaged terminal air conditioners, and packaged terminal heat pumps that are federally regulated consumer products or federally regulated commercial and industrial equipment.

(c) Central Air Conditioners, Air Filters, and Heat Pump Water-Heating Packages.

(1) Central Air Conditioners. See sections 1605.1(c) and 1605.3(c) of this Article for energy efficiency standards for central air conditioners.

(2) Gas-fired Air Conditioners and Heat Pumps. There is no energy efficiency standard or energy design standard for gas-fired air conditioners or gas-fired heat pumps.

(3) Air Filters and Heat Pump Water-Heating Packages. There are no energy efficiency standards or energy design standards for air filters and heat pump water-heating packages.

(d) Portable Air Conditioners, Evaporative Coolers, Ceiling Fans, Ceiling Fan Light Kits, Whole House Fans, Residential Exhaust Fans, Dehumidifiers, and Residential Furnace Fans.

(1) Ceiling Fans, Ceiling Fan Light Kits, Dehumidifiers, and Residential Furnace Fans.

(A) See section~~s~~ 1605.1(d) of this Article for energy design standards for ceiling fans and ceiling fan light kits.

(B) See section 1605.1(d) of this Article for energy efficiency standards for ceiling fan light kits, dehumidifiers, and residential furnace fans.

(2) There are no energy efficiency standards or energy design standards for portable air conditioners, evaporative coolers, whole house fans, or residential exhaust fans. There are no energy efficiency standards for ceiling fans.

(e) Gas and Oil Space Heaters and Electric Residential Boilers.

(1) Gas and Oil Space Heaters. See sections 1605.1(e) and 1605.3(e) of this Article for energy efficiency standards for gas and oil space heaters, including but not limited to furnaces and boilers.

(2) Combination Space-Heating and Water-Heating Appliances. See section 1605.3(e) of this Article for energy efficiency standards for combination space-heating and water-heating appliances.

(f) Water Heaters.

(1) Water Heaters. See section 1605.1(f) of this Article for standards for water heaters.

(2) Combination Space-Heating and Water-Heating Appliances. See section 1605.3(e) of this Article for energy efficiency standards for combination space-heating and water-heating appliances.

(g) Pool Heaters, Portable Electric Spas, Pumps, Residential Pool Pump and Motor Combinations, and Replacement Residential Pool Pump Motors.

(1) Pool Heaters. See sections 1605.1(g) and 1605.3(g) of this Article for energy efficiency standards and energy design standards for pool heaters.

(2) Portable Electric Spas, Residential Pool Pump and Motor Combinations, and Replacement Residential Pool Pump Motors. See section 1605.3(g) of this Article for energy efficiency standards and energy design standards for portable electric spas, residential pool pump and motor combinations, and replacement residential pool pump motors.

(3) Pumps. See section 1605.1(g)(6) for energy efficiency standards for federally regulated pumps that are manufactured on or after January 27, 2020.

(h) Plumbing Fittings.

See sections 1605.1(h) and 1605.3(h) of this Article for water efficiency standards for plumbing fittings.

(i) Plumbing Fixtures.

See section 1605.3(i) of this Article for water efficiency standards for plumbing fixtures.

(j) Fluorescent Lamp Ballasts and Deep-Dimming Fluorescent Lamp Ballasts.

(1) Federally Regulated Fluorescent Lamp Ballasts. See section 1605.1(j) of this Article for energy efficiency standards for fluorescent lamp ballasts that are federally regulated consumer products.

(2) State-Regulated Deep Diming Fluorescent Lamp Ballasts. See section 1605.3(j) of this Article for energy efficiency standards for deep dimming fluorescent lamp ballasts that are state-regulated.

(k) Lamps.

See sections 1605.1(k) and 1605.3(k) of this Article for energy efficiency standards for lamps.

(l) Emergency Lighting and Self-Contained Lighting Controls.

(1) Illuminated Exit Signs. See section 1605.1(l) of this Article for energy efficiency standards for illuminated exit signs.

(2) Self-Contained Lighting Controls. See section 1605.3(l) of this Article for design standards for self-contained lighting controls.

(m) Traffic Signal Modules.

See sections 1605.1(m) and 1605.3(m) of this Article for energy efficiency standards for traffic signal modules.

(n) Luminaires and Torchieres.

(1) Torchieres. See section 1605.1(n) of this Article for energy efficiency standards and energy design standards for torchieres manufactured on and after January 1, 2006.

(2) Federally Regulated Metal Halide Light Fixtures. See section 1605.1(n) of this Article for energy efficiency standards and energy design standards for federally regulated metal halide light fixtures manufactured on or after January 1, 2009.

(3) Under-Cabinet Luminaires. See section 1605.3(n) of this Article for energy efficiency standards and energy design standards for under-cabinet luminaires.

(o) Dishwashers.

See section 1605.1(o) of this Article for energy efficiency standards for dishwashers that are federally regulated consumer products.

(p) Clothes Washers.

Energy Efficiency and Water Efficiency Standards for Residential and Commercial Clothes Washers. See section 1605.1(p) of this Article for energy-efficiency and water efficiency standards for residential and commercial clothes washers.

(q) Clothes Dryers.

See section 1605.1(q) of this Article for energy efficiency standards and energy design standards for clothes dryers that are federally regulated consumer products.

(r) Cooking Products and Food Service Equipment.

(1) Hot Food Holding Cabinets. See section 1605.3(r) of this Article for energy efficiency standards for commercial hot food holding cabinets.

(2) Cooking Products. See section 1605.1(r) of this Article for energy efficiency standards and energy design standards for cooking products that are federally regulated consumer products.

(3) Other Cooking Products and Food Service Equipment. There is no energy efficiency standard for other cooking products or food service equipment.

(s) Electric Motors and Compressors.

(1) Electric Motors. See section 1605.1(s) of this Article for energy efficiency standards for electric motors that are federally regulated commercial and industrial equipment.

(2) Compressors. There are no energy efficiency standards for federally regulated compressors.

(t) Distribution Transformers.

See section 1605.1(t) of this Article for energy efficiency standards for low-voltage dry-type distribution transformers, liquid-immersed distribution transformers, and medium-voltage dry-type distribution transformers.

(u) External Power Supplies.

(1) See section 1605.1(u) of this Article for energy efficiency standards for federally regulated external power supplies.

(2) See section 1605.3(u) of this Article for energy efficiency standards for state-regulated external power supplies.

(v) Computers, Computer Monitors, Televisions, Signage Displays, and Consumer Audio and Video Equipment.

See section 1605.3(v) of this Article for energy efficiency standards for computers, computer monitors, televisions, signage displays, and consumer audio and video equipment.

(w) Battery Chargers and Battery Charger Systems.

(1) Federally Regulated Battery Chargers. See section 1605.1(w) of this Article for energy efficiency standards for federally regulated battery chargers.

(2) State-Regulated Battery Charger Systems. See section 1605.3(w) of this Article for energy efficiency standards for battery charger systems.

Note: Authority cited: Sections 25213, 25218(e), 25402(a)-25402(c) and 25960, Public Resources Code; and sections 16, 26 and 30, Governor's Exec. Order No. B-29-15 (April 1, 2015). Reference: Sections 25216.5(d), 25402(a)-25402(c) and 25960, Public Resources Code; and section 16, Governor's Exec. Order No. B-29-15 (April 1, 2015).

§ 1605.3. State Standards for Non-Federally-Regulated Appliances.

(a) Refrigerators, Refrigerator-Freezers, and Freezers.

(1) Energy Efficiency Standard for Coolers. The energy consumption of coolers manufactured before October 28, 2019 that are designed and sold for use by an individual shall be no greater than the applicable values shown in Table A15.

Table A-15
Standards for Coolers

Appliance	***Maximum Annual Energy Use (kWh)***
Coolers with manual defrost	13.7V + 267
Coolers with automatic defrost	17.4V + 344
V = volume in ft^3.	

(2) Energy Efficiency Standard for Water Dispensers. The standby energy consumption of bottle-type water dispensers, and point of use water dispensers, dispensing both hot and cold water, manufactured on or after January 1, 2006, shall not exceed 1.2 kWh/day.

(3) See section 1605.1(a) of this Article for energy efficiency standards and energy design standards for:

(A) consumer refrigeration products including

1. miscellaneous refrigeration, including but not limited to coolers manufactured on or after October 28, 2019;

(B) commercial refrigerators, commercial freezers, commercial refrigerator-freezers including hybrid commercial refrigerator-freezers; automatic commercial ice makers; walk-in coolers and walk-in freezers; and refrigerated canned and bottled beverage vending machines.

(b) Room Air Conditioners, Room Air-Conditioning Heat Pumps, Packaged Terminal Air Conditioners, and Packaged Terminal Heat Pumps.

See section 1605.1(b) of this Article for energy efficiency standards for room air conditioners, room air conditioning heat pumps, packaged terminal air conditioners, and packaged terminal heat pumps that are federally regulated consumer products or federally regulated commercial and industrial equipment.

(c) Central Air Conditioners, Air Filters, and Heat Pump Water-Heating Packages.

(1) Energy Efficiency Standards for Ground Water-Source Heat Pumps and Ground-Source Closed-Loop Heat Pumps. The EER and COP for ground water-source heat pumps and ground-source closed-loop heat pumps manufactured on or after October 29, 2003, shall be not less than the applicable values shown in Table C-10.

Table C-10
Standards for Ground Water-Source and Ground-Source Heat Pumps

Appliance	***Rating Condition***	***Minimum Standard***
Ground water-source heat pumps (cooling)	59°F entering water temperature	16.2 EER
Ground water-source heat pumps (heating)	50°F entering water temperature	3.6 COP
Ground-source closed-loop heat pumps (cooling)	77°F entering brine temperature	13.4 EER
Ground-source closed-loop heat pumps (heating)	32°F entering brine temperature	3.1 COP

(2) Energy Efficiency Standards for Computer Room Air Conditioners. The EER of evaporatively cooled computer room air conditioners manufactured on or after the effective dates shown, shall be not less than the applicable values shown in Table C-11.

(A) Computer Room Air Conditioners. See section 1605.1(c) of this Article for energy efficiency standards for air-cooled computer room air conditioners, glycol-cooled computer room air conditioners, and water-cooled computer room air conditioners.

Table C-11
Standards for Evaporatively Cooled Computer Room Air Conditioners

Appliance	***Cooling Capacity (Btu/hr)***	***Minimum EER (Btu/watt-hour)***
		Evaporatively Cooled Effective October 29, 2006
Computer room air conditioners	< 65,000	11.1
	≥ 65,000 and < 135,000	10.5
	≥ 135,000 and < 240,000	10.0

(3) Gas-fired Air Conditioners and Heat Pumps. There is no energy efficiency standard or energy design standard for gas-fired air conditioners or gas-fired heat pumps.

(4) Other Central Air Conditioners. See section 1605.1(c) of this Article for energy efficiency standards for central air conditioners that are federally regulated consumer products or federally regulated commercial and industrial equipment.

(5) Heat Pump Water-Heating Packages. There is no energy efficiency standard or energy design standard for heat pump water-heating packages. The performance of each model shall be reported pursuant to the requirements of section 1606 of this Article for equipment manufactured on or after July 1, 2016.

(6) Air Filters. There is no energy efficiency standard or energy design standard for air filters.

(d) Portable Air Conditioners, Evaporative Coolers, Ceiling Fans, Ceiling Fan Light Kits, Whole House Fans, Residential Exhaust Fans, Dehumidifiers, and Residential Furnace Fans.

(1) See section 1605.1(d) of this Article for energy efficiency standards for ceiling fan light kits, dehumidifiers, and residential furnace fans.

(2) See section 1605.1(d) of this Article for energy design standards for ceiling fans.

(3) There are no energy efficiency standards or energy design standards for portable air conditioners, evaporative coolers, whole house fans, or residential exhaust fans. There are no efficiency standards for ceiling fans.

(e) Gas and Oil Space Heaters and Electric Residential Boilers.

(1) Boilers, Central Furnaces, and Duct Furnaces.

(A) The efficiency of boilers, central furnaces, and duct furnaces, shall be no less than, and the standby loss shall be not greater than, the applicable values shown in Tables E-7, E-8, and E-9.

Table E-7
Standards for Boilers

Appliance	***Output (Btu/hr)***	***Standards***		
		Minimum AFUE %	***Minimum Combustion Efficiency % ****	***Maximum Standby Loss (watts)***
Gas steam boilers with 3-phase electrical supply	< 300,000	75	—	—
All other boilers with 3-phase electrical supply	< 300,000	80	—	—
Natural gas, non-packaged boilers	≥ 300,000	—	80	147
LPG Non-packaged boilers	≥ 300,000	—	80	352
Oil, non-packaged boilers	≥ 300,000	—	83	—
*At both maximum and minimum rated capacity, as provided and allowed by the controls.				

Table E-8
Standards for Central Furnaces

Appliance	***Application***	***Minimum Efficiency %***
Central furnaces with 3-phase electrical supply < 225,000 Btu/hour	Mobile Home	75 AFUE
	All others	78 AFUE or 80 Thermal Efficiency (at manufacturer's option)

Table E-9
Standards for Duct Furnaces

Appliance	***Fuel***	***Standards***		
		Minimum Thermal Efficiency %[1]		***Maximum Energy Consumption during standby (watts)***
		At maximum rated capacity	***At minimum rated capacity***	
Duct furnaces	Natural gas	80	75	10
Duct furnaces	LPG[2]	80	75	147

[1] As provided and allowed by the controls.
[2] Designed expressly for use with LPG.

(B) Natural gas-fired duct furnaces manufactured on or after January 1, 2006, shall have either power venting or an automatic flue damper.

(C) See section 1605.1(e) of this Article for:

1. design standards for unit heaters manufactured on or after August 8, 2008;

2. efficiency standards for wall furnaces, floor furnaces, room heaters, gas- and oil-fired central furnaces and residential electric furnaces that are federally regulated consumer products; and

3. efficiency standards and design standards for boilers that are federally regulated consumer products.

(2) Oil Wall Furnaces, Oil Floor Furnaces, and Infrared Gas Space Heaters. There are no energy efficiency standards or energy design standards for oil wall furnaces, oil floor furnaces, or infrared gas space heaters.

(3) Combination Space-Heating and Water-Heating Appliances.

(A) If part of a combination space-heating and water-heating appliance is a water heater, that part shall comply with the applicable water heater standards in section 1605.1(f) of this Article.

(B) If part of a combination space-heating and water-heating appliance is a furnace, boiler, or other space heater, that part shall comply with the applicable furnace, boiler, or other space heater standards in sections 1605.1(e) and 1605.3(e) of this Article.

(C) Water heaters that are federally regulated appliances, and that are contained in combination space-heating and water-heating appliances that are federally regulated appliances, are required only to meet the standard for the applicable type of water heater, and are not required to meet any standard for space heaters.

(4) Other Gas and Oil Space Heaters. See section 1605.1(e) of this Article for standards for gas and oil space heaters that are federally regulated.

(f) Water Heaters.

(1) Energy Efficiency Standards for Combination Space-Heating and Water-Heating Appliances. See section 1605.3(e)(3) of this Article for standards for combination space-heating and water-heating appliances.

(2) Other Standards for Water Heaters. See section 1605.1(f) of this Article for standards for water heaters that are federally regulated.

(g) Pool Heaters, Portable Electric Spas, Pumps, Residential Pool Pump and Motor Combinations, and Replacement Residential Pool Pump Motors.

(1) Energy Design Standard for Natural Gas Pool Heaters. Natural gas pool heaters shall not be equipped with constant burning pilots.

(2) Energy Design Standard for Heat Pump Pool Heaters. Heat pump pool heaters shall have a readily accessible on-off switch that is mounted on the outside of the heater and that allows shutting off the heater without adjusting the thermostat setting.

(3) Energy Efficiency Standard for Heat Pump Pool Heaters. For heat pump pool heaters manufactured on or after March 1, 2003, the average of the COP at Standard Temperature Rating and the COP at Low Temperature Rating shall be not less than 3.5.

(4) Energy Efficiency Standards for Fossil Fuel-Fired Pool Heaters. See section 1605.1(g) of this Article for energy efficiency standards for fossil fuel-fired pool heaters that are federally regulated consumer products.

(5) Residential Pool Pump and Motor Combinations, and Replacement Residential Pool Pump Motors.

(A) Motor Efficiency. Pool pump motors manufactured on or after January 1, 2006 may not be split-phase or capacitor start -- induction run type.

(B) Two-, Multi-, or Variable-Speed Capability.

1. Residential Pool Pump Motors. Residential pool pump motors with a pool pump motor capacity of 1 HP or greater which are manufactured on or after January 1, 2010, shall have the capability of operating at two or more speeds with a low speed having a rotation rate that is no more than one-half of the motor's maximum rotation rate. The pump motor must be operated with a pump control that shall have the capability of operating the pump at least at two speeds.

2. Pump Controls. Pool pump motor controls manufactured on or after January 1, 2008 that are sold for use with a two- or more speed pump shall have the capability of operating the pool pump at least at two speeds. The control's default circulation speed setting shall be no more than one-half of the motor's maximum rotation rate. Any high speed override capability shall be for a temporary period not to exceed one 24-hour cycle without resetting to default settings.

(6) Portable Electric Spas.

(A) The normalized standby power, as defined in section 1604(g)(2)(A)9. of this Article, of portable electric spas manufactured on or after January 1, 2006, shall be not greater than $5(V^{2/3})$ watts where V = the fill volume, in gallons.

(B) The normalized standby power, as defined in Table G-3, of portable electric spas manufactured on or after June 1, 2019, shall be no greater than the applicable values shown in Table G-3.

Table G-3
Standards for Portable Electric Spas

Appliance	***Normalized Standby Power Condition***	***Maximum Standby Power (Watts)***
Standard spas and the standard spa portion of combination spas	as defined in Section 6.1 and 6.2 of ANSI/APSP/ICC-14 2014	$3.75V^{2/3}+40$
Exercise spas and the exercise spa portion of combination spas	as defined in Section 6.1 and 6.3 of ANSI/APSP/ICC-14 2014	$3.75V^{2/3}+40$
Exercise spas and the exercise spa portion of combination spas capable of maintaining a minimum water temperature of 100°F for the duration of the test	as defined in Section 6.1 and 6.2 of ANSI/APSP/ICC-14 2014	$3.75V^{2/3}+40$
Inflatable spas	as defined in Sections 6.1 and 6.2 of ANSI/APSP/ICC-14 2014	$7(V^{2/3})$
Where V = the fill volume, in gallons.		

(h) Plumbing Fittings.

(1) Tub Spout Diverters and Showerhead Tub Spout Diverter Combinations. The leakage rate of tub spout diverters manufactured on or after March 1, 2003 shall be not greater than the applicable values shown in Table H-3.

(A) Showerhead tub spout diverter combinations. Showerhead tub spout diverter combinations shall meet both the standard for showerheads and the standard for tub spout diverters.

Table H-3
Standards for Tub Spout Diverters

Appliance	***Testing Conditions***	***Maximum Leakage Rate***
Tub spout diverters	When new	0.01 gpm
	After 15,000 cycles of diverting	0.05 gpm

(2) Lavatory Faucets and Aerators. The flow rate of lavatory faucets and lavatory replacement aerators manufactured on or after July 1, 2016 shall be not greater than 1.2 gpm at 60 psi.

(A) Sprayheads with independently controlled orifices and manual controls. The maximum flow rate of each orifice that manually turns on or off shall not exceed the maximum flow rate for a lavatory faucet.

(B) Sprayheads with collectively controlled orifices and manual controls. The maximum flow rate of a sprayhead that manually turns on or off shall be the product of (a) the maximum flow rate for a lavatory faucet and (b) the number of component lavatories (rim space of the lavatory in inches (millimeters) divided by 20 inches (508 millimeters)).

(3) Kitchen Faucets and Aerators and Public Lavatory Faucets and Aerators. The flow rate of kitchen faucets, kitchen replacement aerators, public lavatory faucets, and public lavatory replacement aerators sold or offered for sale on or after January 1, 2016 shall be not greater than the applicable values shown in Table H-4.

(A) For the plumbing fittings identified in Table H-4, noncompliant products may not be sold or offered for sale on or after January 1, 2016, regardless of manufacture date.

Table H-4
Standards for Kitchen Faucets and Aerators and Public Lavatory Faucets and Aerators

Appliance	***Maximum Flow Rate***
Kitchen faucets and aerators	1.8 gpm with optional temporary flow of 2.2 gpm at 60 psi
Public lavatory faucets and aerators	0.5 gpm at 60psi

(4) Commercial Pre-rinse Spray Valves.

(A) Commercial pre-rinse spray valves manufactured on or after January 1, 2006, shall have a minimum spray force of not less than 4.0 ounces-force (ozf) [113 grams-force (gf)].

(B) See section 1605.1(h) of this Article for water consumption standards for commercial pre-rinse spray valves.

(5) Showerheads. The flow rate of showerheads shall be not greater than the applicable values shown in Table H-5.

Table H-5
Standards for Showerheads

Appliance	***Maximum Flow Rate***	
	Manufactured on or after July 1, 2016 and prior to July 1, 2018	Manufactured on or after July 1, 2018
Showerheads	2.0 gpm at 80 psi[1,2,3]	1.8 gpm at 80 psi[1,2,3]

[1] Maximum flow rate. The maximum flow rate shall be the highest value obtained through testing at a flowing pressure of 80 ± 1 psi and shall not exceed the maximum flow rate in Table H-4.
[2] Minimum flow rate. The minimum flow rate, determined through testing at a flowing pressure of 20 ± 1 psi, shall be not less than 60 percent of the flow rate reported by the manufacturer pursuant to section 1606(a) of this Article. The minimum flow rate determined through testing at a flowing pressure of 45 and 80 ± 1 psi shall be not less than 75 percent of the flow rate reported by the manufacturer pursuant to section 1606(a) of this Article.
[3] Showerheads with multiple nozzles. The total flow rate of showerheads with multiple nozzles must be less than or equal to the maximum flow rate in Table H-5 when any or all the nozzles are in use at the same time.

(6) Other Plumbing Fittings. See section 1605.1(h) of this Article for water efficiency standards for plumbing fittings that are federally regulated.

(i) Plumbing Fixtures.

(1) The water consumption of water closets and urinals, other than those designed and marketed exclusively for use at prisons or mental health care facilities, shall be not greater than the values shown in Table I.

Table I
Standards for Plumbing Fixtures

Appliance	***Maximum Gallons per Flush or Dual-flush effective flush volume***
	Sold or Offered for Sale On or After January 1, 2016[1]
All Water Closets	1.28
Trough-Type Urinals	Trough length (inches) 16
Wall-Mounted Urinals	0.125
Other Urinals	0.5

[1] For the items identified in Table I, noncompliant products may not be sold or offered for sale on or after the designated date, regardless of manufacture date.

(2) Water closets sold or offered for sale on or after January 1, 2016, shall pass the Waste Extraction Test (Section 7.10) of ASME A112.19.2/CSA B45.1-2013.

(j) Fluorescent Lamp Ballasts and Deep-Dimming Fluorescent Lamp Ballasts.

(1) Deep-Dimming Fluorescent Lamp Ballasts. Deep-dimming fluorescent lamp ballasts manufactured on or after July 1, 2016 shall meet the following energy conservation standards:

(A) Shall not consume more than 1 watt in standby mode;

(B) Shall have a power factor of 0.9 or greater; and

(C) Shall have a weighted ballast luminous efficacy greater than or equal to the threshold described in the following equation:

$$Weighted\ Ballast\ Luminous\ Efficacy\ \geq \frac{AP_{100}\ *}{AP_{100}\ \times 1.091 + 7.55}$$

*AP_{100} represents maximum arc power as defined in section 1602(j) and discussed in section 1604(j)(2) of this Article.

(2) See section 1605.1(j) of this Article for energy efficiency standards for fluorescent lamp ballasts that are federally regulated consumer products.

(k) Lamps.

(1) Incandescent Reflector Lamps.

See section 1605.1(k)(2) for standards for federally regulated incandescent reflector lamps.

(2) Standards for State-Regulated LED Lamps and General Service Lamps. General service lamps shall meet the standards shown in Table K-8. The energy consumption rate of state-regulated LED lamps with a lumen output of 150 lumens or greater for candelabra bases, or 200 lumens or greater for other bases, manufactured on or after the effective dates shown in Table K-9 shall meet the standards shown in that table.

Table K-8
Standards for State-Regulated General Service Lamps -Tier II

Lumen Ranges	***Minimum Lamp Efficacy***	***Minimum Rated Lifetime***		***Effective Date***
310-2,600	45 lumens per watt	1,000 Hours		Jan, 1, 2018

(A) State-regulated LED lamps with lumen output of 150 lumens or greater for candelabra bases, or 200 lumens or greater for other bases, and manufactured on or after January 1, 2018 shall have:

(i) A color point that meets the requirements in Table B1 of Annex B of ANSI C78.377-2015 for color targets and color consistency.

(ii) A CRI (Ra) of 82 or greater.

(iii) Individual color scores of R1, R2, R3, R4, R5, R6, R7, and R8 of 72 or greater.

(iv) A power factor of 0.7 or greater.

(v) A rated life of 10,000 hours or greater as determined by the lumen maintenance and time to failure test procedure.

(vi) State-regulated LED lamps that have an ANSI standard lamp shape of A shall meet the omnidirectional light distribution requirements of ENERGY STAR's Product Specification for Lamps Version 2.0 (December 2015).

(vii) State-regulated LED lamps that have an ANSI standard lamp shape of B, BA, C, CA, F, or G shall meet the decorative light distribution requirements of ENERGY STAR's Product Specification for Lamps Version 1.1 (August 2014).

(B) In addition to the requirements in section 1605.3(k)(2)(A) of this Article, state-regulated LED lamps manufactured on or after July 1, 2019 shall have a standby mode power of 0.2 watt~~s~~ or less.

Table K-9
Standards for State-Regulated LED Lamps

Effective Date	***Minimum Compliance Score***	***Minimum Efficacy Lumens Per Watt***
January 1, 2018	282	68
July 1, 2019	297	80
The compliance score shall be calculated as the sum of the efficacy and 2.3 times the CRI of a lamp.		

(3) State-regulated Small Diameter Directional Lamps. State-regulated small diameter directional lamps manufactured on or after January 1, 2018 must have a rated life of 25,000 hours or greater as determined by the lumen maintenance and time to failure test procedure and meet one of the following requirements:

(A) have luminous efficacy of at least 80 lumens per watt.

(B) have a minimum luminous efficacy of 70 lumens per watt or greater and a minimum compliance score of 165 or greater, where compliance is calculated as the sum of the luminous efficacy and CRI.

(4) GU24 Base Lamps. GU24 base lamps shall not be incandescent lamps.

(5) See section 1605.1(k) of this Article for energy efficiency standards for federally regulated lamps.

(l) Emergency Lighting and Self-Contained Lighting Controls.

(1) Illuminated Exit Signs. See section 1605.1(l) of this Article for energy efficiency standards for illuminated exit signs.

(2) Self-Contained Lighting Controls Manufactured On or After February 1, 2013.

(A) All Self-Contained Lighting Controls.

1. The manufacturer shall provide instructions for installation and start-up calibration of all self-contained lighting control devices.

2. If indicator lights are integral to a self-contained lighting control system, such indicator lights shall consume no more than 1 watt of power per indicator light.

(B) Automatic Time-Switch Controls.

1. Residential automatic time-switch controls labeled for use with lighting shall have program backup capabilities that prevent the loss of the device's schedule for at least 7 days, and the device's date and time for at least 72 hours if power is interrupted.

2. Commercial automatic time-switch controls labeled for use with lighting shall:

a. have program backup capabilities that prevent the loss of the device's schedule for at least 7 days, and the device's date and time for at least 72 hours if power is interrupted;

b. be capable of providing manual override to each connected load and shall resume normally scheduled operation after manual override is initiated within 2 hours for each connected load; and

c. incorporate an automatic holiday shutoff feature that turns off all connected loads for at least 24 hours and then resumes normally scheduled operation.

(C) Astronomical Time-Switch Controls. Astronomical time-switch controls shall:

1. meet the requirements of an automatic time-switch control;

2. have sunrise and sunset prediction accuracy within plus-or-minus 15 minutes and timekeeping accuracy within 5 minutes per year;

3. be capable of displaying date, current time, sunrise time, sunset time, and switching times for each step during programming;

4. have an automatic daylight savings time adjustment; and

5. have the ability to independently offset the on and off for each channel by at least 99 minutes before and after sunrise or sunset.

(D) Automatic Daylight Controls. Automatic daylight controls shall:

1. be capable of reducing the power consumption in response to measured daylight either directly or by sending and receiving signals;

2. comply with section 1605.3(l)(2)(F) of this Article if the day lighting control is capable of directly dimming lamps;

3. automatically return to its most recent time delay settings within 60 minutes when put in calibration mode;

4. have a set point control that easily distinguishes settings to within 10 percent of full scale adjustment;

5. have a light sensor that has a linear response within 5 percent accuracy over the range of illuminance measured by the light sensor;

6. have a light sensor that is physically separated from where the calibration adjustments are made, or is capable of being calibrated in a manner that the person initiating the calibration is remote from the sensor during calibration to avoid influencing calibration accuracy; and

7. comply with section 1605.3(l)(2)(E) of this Article if the device contains a photo control component.

(E) Photo Controls.

Photo controls shall not have a mechanical device that permits disabling of the control.

(F) Dimmer Controls.

1. All dimmer controls shall:

a. be capable of reducing power consumption by a minimum of 65 percent when the dimmer is at its lowest level;

b. include an off position which produces a zero lumen output; and

c. not consume more than 1 watt per lighting dimmer switch leg when in the off position.

2. Dimmer controls that can directly control lamps shall provide electrical outputs to lamps for reduced flicker operation through the dimming range so that the light output has an amplitude modulation of less than 30 percent for frequencies less than 200 Hz without causing premature lamp failure.

3. Wall box dimmers and associated switches designed for use in three way circuits shall be capable of turning lights off, and to the level set by the dimmer if the lights are off.

(G) Occupant sensing devices.

1. All occupant sensing devices shall:

a. be capable of automatically turning off controlled lights in the area no more than 30 minutes after the area has been vacated;

b. allow all lights to be manually turned off regardless of the status of occupancy; and

c. have a visible status signal that indicates that the device is operating properly, or that it has failed or malfunctioned. The visible status signal may have an override switch that turns off the signal.

2. All occupant sensing devices that utilize ultrasonic radiation for detection of occupants shall:

a. comply with 21 C.F.R. part 1002.12; and

b. emit no audible sound, and shall not emit ultrasound in excess of the decibel levels shown in Table L measured no more than five feet from the source, on axis.

Table L
Ultrasound Maximum Decibel Values

Mid-frequency of Sound Pressure Third-Octave Band (in kHz)	***Maximum db Level within third-Octave Band (in dB reference 20 micropascals)***
Less than 20	80
20 or more to less than 25	105
25 or more to less than 31.5	110
31.5 or more	115

3. All occupant sensing devices that utilize microwave radiation for detection of occupants shall:

a. comply with 47 C.F.R. parts 2 and 15; and

b. not emit radiation in excess of 1 milliwatt per square centimeter measured at no more than 5 centimeters from the emission surface of the device.

4. Occupant sensing devices incorporating dimming shall comply with the requirements for dimmer controls in section 1605.3(I)(2)(F) of this Article.

5. Motion sensors shall be rated for outdoor use as specified by the National Electrical Code 2002, Section 410.4(A).

6. “Partial off” shall have dimming functionality or shall incorporate the following functionalities:

a. have two poles;

b. have one pole that is manual-on and manual off; and

c. have one pole that is automatic-on and automatic-off and shall not be capable of conversion by the user to manual-on only functionality.

7. “Partial on” shall have dimming functionality or shall incorporate the following functionalities:

a. have two poles each with automatic-off functionality;

b. have one pole that is manual-on and shall not incorporate DIP switches, or other manual means, for conversion between manual and automatic functionality; and

c. have one pole that is automatic-on and shall not be capable of conversion by the user to manual-on functionality.

8. Vacancy sensors shall:

a. not turn on lighting automatically and shall not incorporate DIP switches, or other manual means, for conversion between manual and automatic functionality;

b. have a grace period of no more than 30 seconds and no less than 15 seconds to turn on lighting automatically after the sensor has timed out; and

c. not have an override switch that disables the sensor.

(m) Traffic Signal Modules.

(1) Traffic Signal Modules for Pedestrian Control. The power consumption of traffic signal modules for pedestrian control manufactured on or after January 1, 2006 shall be not greater than the applicable values shown in Table M-2 when tested at the temperatures shown.

Table M-2
Standards for Traffic Signal Modules for Pedestrian Control
Sold or Offered for Sale in California

Type	*at 25°C (77°F)*	*At 74°C (165.2°F)*
Hand or 'Don't Walk' sign or countdown.	10 watts	12 watts
Walking Person or 'Walk' sign	9 watts	12 watts

(2) See section 1605.1(m) of this Article for energy efficiency standards for federally regulated traffic signal modules for vehicle control and federally regulated traffic signal modules for pedestrian control.

(n) Luminaires and Torchieres.

(1) Energy Efficiency Standard for Metal Halide Luminaires. Metal halide luminaires rated at least partially within the range of 150 to 500 watts shall not have probe-start ballasts and shall comply with section 1605.3(n)(1)(A) of this Article as applicable:

(A) The requirements for metal halide luminaires are as follows:

1. Indoor metal halide luminaires manufactured on or after January 1, 2010 shall comply with at least one compliance option of section 1605.3(n)(1)(B) of this Article.

2. Indoor metal halide luminaires manufactured on or after January 1, 2015 shall comply with section 1605.3(n)(1)(B)4 of this Article, and shall also comply with at least one other compliance option of section 1605.3(n)(1)(B) of this Article.

3. Outdoor metal halide luminaires manufactured on or after January 1, 2010, may comply with section 1605.3(n)(1)(B)3 of this Article, and shall comply with at least one other compliance option of section 1605.3(n)(1)(B) of this Article.

(B) Metal halide luminaires shall meet one of the following compliance options:

1. A minimum ballast efficiency of:

a. 90 percent for 150 to 250 watt lamps; or

b. 92 percent for 251 to 500 watt lamps.

2. A minimum ballast efficiency of 88 percent and an occupant sensor which is an integral control as defined in section 1602(n) of this Article, shipped with the factory default setting to automatically reduce lamp power through dimming by a minimum of 40 percent within 30 minutes or less after an area has been vacated;

3. A minimum ballast efficiency of 88 percent and an automatic daylight control which is an integral control as defined in section 1602(n) of this Article, shipped with the factory default setting to automatically reduce lamp power through dimming by a minimum of 40 percent;

4. A minimum ballast efficiency of 88 percent and a relamping rated wattage within only one of the four wattage bins specified in subsections (a) through (d) below. The luminaire shall be able to operate lamps within only one of the four wattage bins and shall not be rated for any lamp wattage outside of that wattage bin. The luminaire shall have a permanent, pre-printed factory-installed label that states the relamping rated wattage.

a. 150-160 watts; or

b. 200-215 watts; or

c. 290-335 watts

d. 336-500 watts, provided that when a luminaire is able to operate 336 to 500 watt lamps, the luminaire shall be prepackaged and sold together with at least one lamp per socket, having a minimum lamp mean efficacy of 80 lumens per watt based on published mean lumens and rated lamp power (watts).

(C) Federally Regulated Metal Halide Luminaires. See section 1605.1(n) of this Article for energy efficiency standards for metal halide luminaries rated under 150 W and above 500 W.

EXCEPTIONS to sections 1605.3(n)(1) of this Article: The following metal halide lighting systems shall not have probe-start ballasts and are not required to meet the minimum ballast efficiency requirements:

1. Luminaires that use regulated lag ballasts;

2. Luminaires that use electronic ballasts which operate at 480 volts; or

3. Luminaires that meet all three of the following requirements:

a. Are rated for use only with 150 watt lamps, and

b. Are rated for use in wet locations, as specified by the National Electrical Code 2002, Section 410.4(A); and

c. Contain a ballast that is rated to operate at ambient air temperatures above 50 °C, as specified by UL 1029-2001.

(2) Energy Efficiency Standards for Under-Cabinet Luminaires. Under-cabinet luminaires that are equipped with T-8 fluorescent lamps and that are designed to be attached to office furniture and that are manufactured on or after January 1, 2006 shall be equipped with ballasts that have a ballast efficacy factor not less than the applicable values shown in Table N-2.

Under-cabinet luminaires that are equipped with GU24 sockets manufactured on or after January 1, 2010 shall not be rated for use with incandescent lamps of any type, including line voltage or low voltage.

Exception 1 to section 1605.3(n)(2) of this Article:

Section 1605.3(n)(2) of this Article does not apply to luminaires equipped with T-8 ballasts designed for dimming.

Exception 2 to section 1605.3(n)(2) of this Article:

Section 1605.3(n)(2) of this Article does not apply to luminaires that are:

(a) specifically and exclusively designed for use in applications where electromagnetic interference from electronic ballasts would interfere with critical, sensitive instrumentation and equipment such as medical imaging devices; and

(b) clearly, legibly, and permanently labeled, in at least 12 point type and in a place likely to be seen by the purchaser and the installer, “This 'luminaire' or 'fixture' is intended exclusively for use in applications where critical, sensitive equipment would be adversely affected by electronic lamp ballast electromagnetic radiation”.

Table N-2
Standards for Under-Cabinet Luminaires

Lamp Length (inches)	***Minimum Ballast Efficacy Factor (BEF) for one lamp***	***Minimum Ballast Efficacy Factor (BEF) for two lamps***
≤29	4.70	2.80
>29 and ≤35	3.95	2.30
>35 and ≤41	3.40	1.90
>41 and ≤47	3.05	1.65
>47	2.80	1.45

(3) Portable Luminaires.

(A) Portable luminaires manufactured on or after January 1, 2010 shall meet one or more of the following requirements:

1. Be equipped with a dedicated fluorescent lamp socket connected to a high frequency electronic ballast contained within the portable luminaire;

2. Be equipped with one or more GU24 line-voltage sockets and not rated for use with incandescent lamps of any type, including line voltage or low voltage;

3. Be an LED luminaire or a portable luminaire with an LED light engine with integral heat sink, and comply with the minimum requirements shown in Table N-3;

Table N-3
Minimum Requirements for Portable LED Luminaires,
and Portable Luminaires with LED Light Engines with Integral Heat Sink

Criteria	***Requirement***
Light Output	≥ 200 lumens (initial)
Minimum LED Luminaire Efficacy	29 lumens/W
Minimum LED Light Engine Efficacy	40 lumens/W
Correlated Color Temperature (CCT)	2700-K through 5000-K
Minimum Color Rendering Index (CRI)	75
Power Factor (for luminaires labeled or sold for residential use)	≥ 0.70

4. Be equipped with an E12, E17, or E26 screw-based socket and be prepackaged and sold together with one screw-based compact fluorescent lamp or screw-based LED lamp for each screw-based socket on the portable luminaire. The compact fluorescent or LED lamps which are prepackaged with the portable luminaire shall be fully compatible with the luminaire controls, meaning that portable luminaires having a dimmer control shall be prepackaged with dimmable compact fluorescent or LED lamps, and portable luminaires having 3-way controls shall be prepackaged with 3-way compact fluorescent or LED lamps. The compact fluorescent lamps which are prepackaged with the luminaires shall also meet the minimum energy efficiency levels established by ENERGY STAR® for compact fluorescent lamps in effect on December 31, 2008. The LED lamps required to be packaged with the luminaire shall comply with the minimum requirements for state-regulated LED lamps in sections 1601 through 1607 of this Article;

5. Be equipped with one or more single-ended, non-screw based halogen lamp sockets (line or low voltage), a dimmer control or high low control, and be rated for a maximum of 100W.

EXCEPTIONS to Section 1605.3(n)(3) of this Article. The following portable luminaires are not required to be prepackaged and sold together with compact fluorescent or LED lamps:

1. Portable Wall Mount Adjustable Luminaires that meet all of the following requirements: Designed only to be mounted on a wall, having no base which will allow the luminaire to stand on a horizontal surface, having an articulated arm, having a maximum overall length of 24 inches in any direction, fitted only with a single E12, E17 or E26 lamp socket per luminaire, and controlled with an integral dimmer. Luminaires manufactured on or before December 31, 2011 shall have a maximum relamping rated wattage of 57 watts, and luminaires manufactured on or after January 1, 2012 shall have a maximum relamping rated wattage of 43 watts, as listed on a permanent pre-printed factory-installed label in accordance with Underwriters Laboratories (UL) 153.

2. Art Work Luminaires that meet all of the following requirements: Designed only to be mounted directly to art work only for the purpose of illuminating that art work, fitted only with E12 screw-base line-voltage sockets, having no more than three sockets per luminaire, and controlled with an integral high/low switch. Luminaires with a single socket shall have a maximum relamping rated wattage of 25 watts, and luminaires with two or three sockets shall have a maximum relamping rated wattage of 15 watts per socket, as listed on a permanent pre-printed factory-installed label in accordance with Underwriters Laboratories (UL) 153.

(B) Portable luminaires that have internal power supplies shall have zero standby power when the luminaire is turned off.

(4) GU24 adaptors. GU24 adaptors manufactured on or after January 1, 2010 shall not adapt a GU24 socket to any other line voltage socket.

(5) See section 1605.1(n) of this Article for energy efficiency standards for federally regulated metal halide lamp fixtures manufactured on or after January 1, 2009, and torchieres.

(o) Dishwashers.

See section 1605.1(o) of this Article for energy efficiency standards for dishwashers that are federally regulated consumer products.

(p) Clothes Washers.

Energy Efficiency and Water Efficiency Standards for Residential and Commercial Clothes Washers. See section 1605.1(p) of this Article for energy efficiency and water efficiency standards for residential and commercial clothes washers.

(q) Clothes Dryers.

See section 1605.1(q) of this Article for energy efficiency standards and energy design standards for clothes dryers that are federally regulated consumer products.

(r) Cooking Products and Food Service Equipment.

(1) Energy Standards for Food Service Equipment. There is no energy efficiency standard or energy design standard for food service equipment other than commercial hot food holding cabinets.

(2) Energy Efficiency Standards for Commercial Hot Food Holding Cabinets. The idle energy rate of commercial hot food holding cabinets manufactured on or after January 1, 2006 shall be no greater than 40 watts per ft^3 of measured interior volume.

(3) Cooking Products. See section 1605.1(r) of this Article for energy efficiency standards and energy design standards for cooking products that are federally regulated consumer products.

(s) Electric Motors and Compressors.

(1) Electric Motors. See section 1605.1(s) of this Article for energy efficiency standards for electric motors that are federally regulated commercial and industrial equipment.

(2) Compressors. There are no energy efficiency standards for federally regulated compressors.

(t) Distribution Transformers.

See section 1605.1(t) of this Article for energy efficiency standards for low-voltage dry-type distribution transformers, liquid-immersed distribution transformers, and medium-voltage dry-type distribution transformers.

(u) External Power Supplies.

(1) The efficiency in the active mode of state-regulated external power supplies, manufactured on or after the effective dates shown when tested at 115 volts at 60 Hz, shall be not less than the applicable values shown (expressed as the decimal equivalent of a percentage); and the energy consumption in the no-load mode of power supplies manufactured on or after the effective dates when tested at 115 volts at 60 Hz, shown shall be not greater than the applicable values shown in Table U-4.

Table U-4
Standards for State-Regulated External Power Supplies
Effective July 1, 2008

Nameplate Output	***Minimum Efficiency in Active Mode***
<1 watt	0.5 * Nameplate Output
≥ 1 and ≤ 51 watts	0.09*Ln(Nameplate Output) + 0.5
> 51 watts	0.85
	Maximum Energy Consumption in No-Load Mode
Any output	0.5 watts
Where Ln (Nameplate Output) = Natural Logarithm of the nameplate output expressed in watts.	

(2) See section 1605.1(u) of this Article for energy efficiency standards for federally regulated external power supplies.

(v) Computers, Computer Monitors, Televisions, Signage Displays, and Consumer Audio and Video Equipment.

(1) Consumer Audio and Video Equipment. The power usage of consumer audio and video equipment manufactured on or after the effective dates shown shall be not greater than the applicable values shown in Table V-2. For equipment that consists of more than one individually powered product, each with a separate main plug, the individually powered products shall each have a power usage not greater than the applicable values shown in Table V-2.

Table V-2
Standards for Consumer Audio and Video Equipment

Appliance Type	***Effective Date***	***Maximum Power Usage (Watts)***
Compact Audio Products	January 1, 2007	2 W in Audio standby-passive mode for those without a permanently illuminated clock display 4 W in Audio standby-passive mode for those with a permanently illuminated clock display
Digital Versatile Disc Players and Digital Versatile Disc Recorders	January 1, 2006	3 W in Video standby-passive mode

(2) Televisions and Signage Displays. All televisions and signage displays manufactured on or after the effective dates shall meet the requirements shown in Table V-3.

(3) Televisions and Signage Displays Manufactured On or After January 1, 2011. In addition, televisions and signage displays manufactured on or after January 1, 2011 shall meet the requirements shown in sections 1605.3(v)(3)(A), 1605.3(v)(3)(B), and 1605.3(v)(3)(C) of this Article.

(A) A television or signage display shall automatically enter TV standby-passive mode or standby-active mode after a maximum of 15 minutes without video or audio input on the selected input mode.

(B) A television or signage display shall enter TV standby-passive mode when turned off by remote or integrated button/switch.

(C) The peak luminance of the product in "home" mode, or in the default mode as shipped, shall not be less than 65% of the peak luminance of the "retail" mode, or the brightest selectable preset mode, of the product.

Table V-3
Standards for Televisions and Signage Displays

Effective Date	***Screen Size (area A in square inches)***	***Maximum TV and Signage Display Standby-passive Mode Power Usage (watts)***	***Maximum On Mode Power Usage (P in Watts)***	***Minimum Power Factor for (P ≥ 100W)***
January 1, 2006	All	3 W	No standard	No standard
January 1, 2013	A < 1400	1 W	P ≤ 0.12 x A + 25	0.9

EXCEPTIONS to Sections 1605.3(v)(2) and 1605.3(v)(3): The standards found in sections 1605.3(v)(2) and 1605.3(v)(3) of this Article do not apply to professional signage displays.

(4) Computer monitors. Computer monitors manufactured on or after July 1, 2019, shall comply with all of the following:

(A) The computer monitor on-mode power draw shall be less than or equal to the following equation with each of the applicable allowances applied at most once:

$$E_{on} \leq (E_{on_max} + E_{EP} + E_{Game} + E_{OLED} + E_{Curve})$$

Where:

E_{on} is the computer monitor on-mode power draw in watts as determined under section 1604(v)(3) of this Article,
E_{on_max} is the maximum on-mode power draw in watts as determined by Table V-4,
E_{EP} is the enhanced performance display allowance in watts as determined in Table V-5,
E_{Game} is the gaming monitor allowance in watts as determined in Table V-5,
E_{OLED} is the OLED monitor allowance in watts as determined in Table V-5, and
E_{Curve} is the curved monitor allowance in watts as determined in Table V-5.

(B) Consume less than or equal to 1.2 watts in computer monitor sleep mode and computer monitor off mode power combined.

(C) Be shipped with a screen luminance less than or equal to 200 cd/m2 ± 35 percent. A manufacturer may ship with additional features enabled, even if they were turned off in testing.

(D) Computer monitors with touch screen capability are allowed an additional 1 watt allowance per mode in modes where touch functionality is enabled.

Table V-4
Power Consumption Standards for Computer Monitors

Resolution in megapixels (MP)	***Diagonal Screen Size (d) in Inches***	***Maximum Computer Monitor On Mode Power Consumption in Watts***
≤ 5.0 MP	17” ≤ d ≤ 20”	[(6.0*r) + (0.025*A) + 3.7]
	20” < d < 23”	[(4.2*r) + (0.02*A) + 2.2]
	23” ≤ d < 25”	[(4.2*r) + (0.04*A) – 2.4]
	25” ≤ d < 30”	[(4.2*r) + (0.07*A) – 10.2]
	30” ≤ d ≤ 61”	[(6.0*r) + (0.1*A) – 14.5]
> 5.0 MP	17” ≤ d ≤ 20”	[25 + (0.025*A) + 3.7]
	20” < d < 23”	[25 + (0.02*A) + 2.2]
	23” ≤ d < 25”	[25 + (0.04*A) – 2.4]
	25” ≤ d < 30”	[25 + (0.07*A) – 10.2]
	30” ≤ d ≤ 61”	[25 + (0.1*A) – 14.5]
Where: “A” is the monitor screen area in square inches “d” is the diagonal measurement of the display in inches “r” is the megapixel resolution of the display		

Table V-5
List of Potentially Applicable Allowances

Allowance	***Computer Monitor Type***	***Models manufactured on or after July 1, 2019, and before January 1, 2021***	***Models manufactured on or after January 1, 2021***
EEP	Enhanced Performance Display with a color gamut support of 32.9% of CIELUV or greater (99% or more of defined sRGB colors)	.3 * Eon_max	.2 * Eon_max
	Enhanced Performance Display with a color gamut support of 38.4% of CIELUV or greater (99% or more of defined Adobe RFB colors)	.75 * Eon_max	.6 * Eon_max
EGame	Gaming Monitors without incremental hardware-based assistance	.3 * Eon_max	.2 * Eon_max
	Gaming Monitors with incremental hardware-based assistance	.35 * Eon_max	.3 * Eon-max
EOLED	OLED monitor	.3 * Eon_max	.2 * Eon_max
ECurve	Curved Monitor	.3 * Eon_max	.2 * Eon_max

EXCEPTIONS to Section 1605.3(v)(4): The following computer monitors are not required to comply with section 1605.3(v)(4) of this Article but shall comply with the test procedures in section 1604(v)(3) of this Article, the certification requirements in section 1606 of this Article, and the marking requirements in section 1607 of this Article:

1. KVMs.

2. KMMs.

3. Very high performance monitors.

EXCEPTION to Section 1605.3(v)(4): Medical computer monitors are not required to comply with section 1605.3(v)(4) of this Article or the test procedures in section 1604(v)(3) of this Article but shall comply with the certification requirements in section 1606 of this Article, and the marking requirements in section 1607 of this Article.

(5) Desktop computers, thin clients, mobile gaming systems, portable all-in-ones, and notebook computers. Desktop computers, thin clients, mobile gaming systems, portable all-in-ones, and notebook computers manufactured on or after January 1, 2019, shall:

(A) Comply with Table V-7; and

(B) Be shipped with power management settings that do both of the following:

1. Transition the computer into either the computer sleep mode or computer off mode measured in section 1604(v)(5) of this Article within 30 minutes of user inactivity. If the transition is to a computer sleep mode, that sleep mode shall either:

a. Be a computer sleep mode as described in ACPI as S3; or

b. Consume power less than or equal to the values shown in Table V-6.

2. Transition connected displays into sleep mode within 15 minutes of user inactivity.

EXCEPTION to Section 1605.3(v)(5)(B). If the model is shipped at the purchaser's request with either a limited capability operating system or without an operating system, or if the model is not capable of having an operating system, the model is not required to comply with section 1605.3(v)(5)(B) of this Article.

EXCEPTION to Section 1605.3(v)(5)(A). Desktop computers and thin clients assembled before July 1, 2021, entirely from parts manufactured before September 1, 2018, are not required to comply with section 1605.3(v)(5)(A) of this Article.

Table V-6
Alternative Computer Sleep Mode Power Limits

Computer Type	***Maximum Power Consumption (watts)***
Workstations, Mobile Workstations, High Expandability computers	10 + 0.03 * C where C is the system memory capacity in gigabytes minus 32 gigabytes. If C is less than zero, use zero for the value of C.
Desktop Computers, Thin Clients, Mobile Gaming Systems	5 + 0.03 * C where C is the system memory capacity in gigabytes minus 32 gigabytes. If C is less than zero, use zero for the value of C.
Notebook Computers, Portable All-In-Ones	2.5 + 0.03 * C where C is the system memory capacity in gigabytes minus 16 gigabytes. If C is less than zero, use zero for the value of C. If a discrete GPU is present in the system, the maximum power consumption limit shall be increased by an additional 2 watts.

Table V-7
Energy Consumption Standards for Desktop Computers, Thin Clients, Notebook Computers, Mobile Gaming Systems, and Portable All-in-Ones

Computer Type	***For models manufactured on or after January 1, 2019, and before July 1, 2021, the measured annual energy consumption shall be less than or equal to the values below***	***For models manufactured on or after July 1, 2021, the measured annual energy consumption shall be less than or equal to the values below***
Desktop Computers, mobile gaming systems, and thin clients with an ES of 250 or less	50 kWh/yr + applicable adders in Table V-8	50 kWh/yr + applicable adders in Table V-8
Desktop Computers, mobile gaming systems, and thin clients with an ES of more than 250 but no more than 425	80 kWh/yr + applicable adders in Table V-8	60 kWh/yr + applicable adders in Table V-8
Desktop Computers, mobile gaming systems, and thin clients with an ES of more than 425 but no more than 690	100 kWh/yr + applicable adders in Table V-8	75 kWh/yr + applicable adders in Table V-8
Notebook computers and portable all-in-ones	30 kWh/yr + applicable adders in Table V-8	30 kWh/yr + applicable adders in Table V-8
Minimum power factor of a computer power supply that is not a federally-regulated external power supply	0.9 measured at full load	0.9 measured at full load

Table V-8
List of Potentially Applicable Adders

Function	***Desktop Computer, Mobile Gaming System, and Thin Client Adder (kWh/yr.)***	***Notebook Computers and Portable All-In-One Adder (kWh/yr.)***
System Memory	4 + 0 .15 * C Where C is the capacity in GB.	4 + 0.15 * C Where C is the capacity in GB.
Energy-Efficient Ethernet	0.9 per computer	0.9 per computer
Storage device other than main storage device	3.5-inch Drive: 26 2.5-inch Drive: 4.5 Solid-State Drive (SSD): 0.5 Solid-State Hybrid Drive (SSHD): 1.0 Other: 26 per storage device	2.6 per storage device
Integrated Display Where: “d" is the diagonal measurement of the display in inches. "r" is the megapixel resolution of the display. "A" is the viewable screen area in square inches. EP=0 for displays that are not enhanced performance displays	For d ≤ 20: (8.76*0.35*(1 +EP)*[(4.2*r)+5.7])*0.8 For 20 < d < 23: (8.76*0.35*(1+EP)*[(4.2*r)+(0.02*A)+2.2])*0.8 For 23 ≤ d < 25: (8.76*0.35*(1+EP)* [(4.2*r)+(0.04*A)-2.4])*0.8 For 25 ≤ d: (8.76*0.35*(1 +EP)* [(4.2*r)+(0.07*A)-10.2])*0.8 r=6 for resolutions greater than 6 megapixels. Before July 1, 2021: EP=0.3 for displays with a color gamut support of 32.9% of CIELUV or greater (99% or more of defined sRGB colors); and EP=0.75 for displays with a color gamut support of 38.4% of CIELUV or greater (99% or more of defined Adobe RGB colors). On or after July 1, 2021: EP=0.2 for displays with a color gamut support of 32.9% of CIELUV or greater (99% or more of defined sRGB colors); and EP=0.6 for displays with a color gamut support of 38.4% of CIELUV or greater (99% or more of defined Adobe RGB colors).	8.76*0.3*(1+EP)*[(0.43*r)+(0.0263*A)] r=6 for resolutions greater than 6 megapixels. EP=0.4 for displays with a color gamut support of38.4% of CIELUV or greater (99% or more of defined Adobe RGB colors).
First Discrete GPU that is not packaged on the same substrate as the CPU (on or after January 1,2019 and before July 1, 2021)	58.6*tanh(0.0038*B-0.137)+26.8	29.3*tanh(0.0038*B-0.137)+13.4

Where "B" is frame buffer bandwidth measured in GB/s		
First Discrete GPU that is not packaged on the same substrate as the CPU (on or after July 1, 2021) Where "B" is frame buffer bandwidth measured in GB/s	29.4*tanh(0.008*B-0.03)+11+(0.011*B)	14.7*tanh(0.008*B-0.03)+5.5+(0.0055*B)
First Discrete GPU that is packaged on the same substrate as the CPU (on or after January 1, 2019) Where “B” is frame buffer bandwidth measured in GB/s	29.4*tanh(0.008*B-0.03)+11+(0.011*B)	14.7*tanh(0.008*B-0.03)+5.5+(0.0055*B)
Additional Discrete GPU	11 per GPU	5.5 per GPU
Add-in Cards This adder does not apply if either of the following criteria is met: An adder is claimed for a device connected through this add-in card; or An interface score from Table V-1 applies to a slot or interface provided by this add-in card.	10 per card	5 per card
Video Surveillance Card	25 per card	12.5 per card
Wired Ethernet or Fiber Card with a transmit rate of 10 Gb/s or greater	25 per card	12.5 per card
High bandwidth system memory, where "S" is system memory bandwidth measured in GB/s. This adder does not apply to a computer that meets any of the following criteria: 1) Expandability score includes a credit for 4-channel memory. 2) System memory bandwidth is less than 146 GB/s. 3) Less than 4 GB of the system memory has a bandwidth of 146 GB/s or more and either: a) Has an integrated display with a resolution of 9 megapixels or less; or b) Does not have an integrated display. 4) Uses an adder for a first discrete GPU.	22.78*tanh[0.006*(S-70)+0.15]-12.33	9.11*tanh[0.006*(S-70)+0.15]-4.45

(6) Small-scale servers, high expandability computers, mobile workstations, and workstations. Small-scale servers, high expandability computers, mobile workstations, and workstations manufactured on or after January 1, 2018, shall:

(A) Be powered by an internal power supply that meets or exceeds the standards in Table V-9, or an external power supply that meets the level VI of efficiency described in the International Efficiency Marking Protocol for External Power Supplies Version 3.0 (Sept. 2013);

(B) Incorporate Energy-Efficient Ethernet functionality;

(C) Transition connected displays into sleep mode within 15 minutes of user inactivity; and

(D) Transition the computer into either the computer sleep mode or computer off mode measured in section 1604(v)(4) of this Article within 30 minutes of user inactivity. If the transition is to a computer sleep mode, that sleep mode shall either:

1. Be a computer sleep mode as described in ACPI as S3; or

2. Consume power less than or equal to the values shown in Table V-6.

EXCEPTION to Section 1605.3(v)(6)(D): Small-scale servers and rack-mounted workstations are not required to comply with section 1605.3(v)(6)(D) of this Article.

Table V-9
Internal Power Supply Requirements

115V Power Supplies				
10% Load	*20% Load*	*50% Load*	*100% Load*	*Power Factor Correction*
-	87%	90%	87%	0.9 at 50% load
230V Power Supplies				
10% Load	*20% Load*	*50% Load*	*100% Load*	*Power Factor Correction*
-	88%	92%	88%	0.9 at 50% load

(7) Small volume manufacturers.

(A) Computers manufactured on or after January 1, 2019, by a small volume manufacturer shall:

1. Comply with the power management settings identified in sections 1605.3(v)(5)(B)2. and 1605.3(v)(6)(C) of this Article;

2. Be shipped with power management settings that transition the computer into either computer sleep mode or computer off mode within 30 minutes of user inactivity; and

3. Be exempt from all other requirements for computers unless the small volume manufacturer meets the criteria in section 1605.3(v)(7)(C) of this Article.

(B) Small-scale servers and rack-mounted workstations are not required to comply with section 1605.3(v)(7)(A)2.

(C) If a small volume manufacturer produces desktop or workstation computers in quantities of more than 50 units of a basic model, the manufacturer shall certify those units as meeting the requirements in sections 1603, 1604(v)(4), 1605.3(v)(5) or 1605.3(v)(6), 1606, and 1607 of this Article.

(w) Battery Chargers and Battery Charger Systems.

(1) Energy Efficiency Standards for Large Battery Charger Systems. Large battery charger systems manufactured on or after January 1, 2014, and that are not federally regulated battery chargers, shall meet the applicable performance values in Table W-2.

Table W-2
Standards for Large Battery Charger Systems

Performance Parameter		***Standard***
Charge Return Factor (CRF)	100 percent, 80 percent Depth of discharge	CRF≤ 1.10
	40 percent Depth of discharge	CRF ≤ 1.15
Power Conversion Efficiency		Greater than or equal to: 89 percent
Power Factor		Greater than or equal to: 0.90
Maintenance Mode Power (E_b = battery capacity of tested battery)		Less than or equal to: 10 + 0.0012E_b W
No Battery Mode Power		Less than or equal to: 10 W

(2) Energy Efficiency Standards for Small Battery Charger Systems. Except as provided in sections 1605.3(w)(3), 1605.3(w)(4), and 1605.3(w)(5) of this Article, the following small battery charger systems shall meet the applicable performance values in Table W-2:

(A) consumer products that are manufactured on or after February 1, 2013 and before June 13, 2018; and

(B) those that are not consumer products and are manufactured on or after January 1, 2017.

EXCEPTION to Section 1605.3(w)(2) of this Article: An à la carte charger that is:

a. provided separately from and subsequent to the sale of small battery charger system manufactured before the effective date of the applicable standard in section 1605.3(w)(2) of this Article;

b. necessary as a replacement for, or as a replacement component of, such small battery charger system;

c. is provided by a manufacturer directly to a consumer or to a service or repair facility; and

d. is manufactured no more than five years after the effective date in section 1605.3(w)(2) of this Article applicable to the particular small battery charger system for which the à la carte charger is intended as a replacement or replacement component,

shall not be required to meet the applicable standard in section 1605.3(w)(2) and Table W-3 of this Article.

Table W-3
Standards for Small Battery Charger Systems

Performance Parameter	***Standard***
Maximum 24 hour charge and maintenance energy (Wh) (E_b = capacity of all batteries in ports and N = number of charger ports)	For E_b of 2.5 Wh or less: 16 × N
	For E_b greater than 2.5 Wh and less than or equal to 100 Wh: 12 x N +1.6E_b
	For E_b greater than 100 Wh and less than or equal to 1000 Wh: 22 x N+1.5E_b
	For E_b greater than 1000 Wh: 36.4 x N +1.486E_b
Maintenance Mode Power and No Battery Mode Power (W) (E_b = capacity of all batteries in ports and N = number of charger ports)	The sum of maintenance mode power and no battery mode power must be less than or equal to: 1x N+0.0021xE_b Watts

(3) Inductive Charger Systems. Inductive charger systems manufactured on or after February 1, 2013 and before June 13, 2018 and inductive charger systems that are not federally regulated battery chargers and manufactured on or after February 1, 2013, shall meet either the applicable performance standards in Table W-2 or shall use less than 1 watt in maintenance mode, less than 1 watt in no battery mode, and an average of 1 watt or less over the duration of the charge and maintenance mode test.

(4) Battery Backup and Non-Federally Regulated Uninterruptible Power Supplies. Battery backup and non-federally regulated uninterruptible power supplies that are manufactured on or after:

(A) February 1, 2013, for consumer products; and

(B) January 1, 2017, for products that are not consumer products

shall consume no more than 0.8+0.0021 x E_b watts in maintenance mode where E_b is the battery capacity in watt-hours.

(5) Standards for Federally Regulated Battery Chargers Manufactured on or After June 13, 2018. See section 1605.1(w) of this Article for standards for federally regulated battery chargers manufactured on or after June 13, 2018.

The following documents are incorporated by reference in section 1605.3.

Number	*Title*

FEDERAL REQUIREMENTS

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI C78.377-2015	American National Standard for Electric Lamps – Specifications for the Chromaticity of Solid State Lighting (SSL) Products
Copies available from:	American National Standards Institute 1819 L Street, NW, 6th Floor Washington, DC 20036 www.ansi.org Phone: (202) 293-8020 FAX: (202) 293-9287

THE ASSOCIATION OF POOL AND SPA PROFESSIONALS (APSP)

ANSI/APSP/ICC-14 2014	American National Standard for Portable Electric Spa Energy Efficiency
Copies available from:	The Association of Pool and Spa Professionals 2111 Eisenhower Avenue, Suite 500 Alexandria, VA 22314-4695 www.apsp.org Phone: (703) 838-0083

AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)

ASME A112.19.2/CSA B45.1-2013 Waste Extraction Test (Section 7.10)	Ceramic Plumbing Fixtures
Copies available from:	ASME Headquarters Two Park Avenue New York, NY 10016-5990 www.asme.org Phone: 800-843-2762 (U.S./Canada) 001-800-843-2763 (Mexico) 973-882-1170 (outside North America) Email: CustomerCare@asme.org

CANADIAN STANDARDS ASSOCIATION (CSA)

CSA B45.1-2013	Ceramic Plumbing Fixtures
Copies available from:	Canadian Standards Association 178 Rexdale Blvd. Toronto, Ontario, Canada, M9W 1R3 Phone: (416) 747-4044 http:/shop.csa.ca/

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA)

EPA ENERGY STAR® Program Requirements Product Specification for Lamps (Light Bulbs) Version 1.1 (August 2014)
EPA ENERGY STAR® Program Requirements Product Specification for Lamps (Light Bulbs) Version 2.0 (December 2015)

EPA ENERGY STAR® Program Requirements for CFLs (December 2008)

Copies available from: US EPA
Climate Protection Partnership
ENERGY STAR® Programs Hotline & Distribution
(MS-6202J)
1200 Pennsylvania Ave NW
Washington, DC 20460
www.energystar.gov

UNDERWRITERS LABS (UL)

UL 153 Portable Luminaires

UL 1029-2001 Standard for High-Intensity-Discharge Lamp Ballasts

Copies available from: Underwriters Laboratories, Inc.
333 Pfingsten Road
Northbrook, IL 60062-2096
www.ul.com
Phone: (847) 272-8800
FAX: (847) 272-8129

UNITED STATES DEPARTMENT OF ENERGY

International Efficiency Marking Protocol for External Power Supplies Version 3.0
(September 2013)

Copies available from: US Department of Energy
Office of Energy Efficiency and
Renewable Energy,
Forrestal Building, Mail Station EE-2J
1000 Independence Ave SW
Washington, DC 20585-0121
202-586-5000
www.energy.gov

Note: Authority cited: Sections 25213, 25218(e), 25402(a)-25402(c) and 25960, Public Resources Code; and sections 16, 26 and 30, Governor's Exec. Order No. B-29-15 (April 1, 2015). Reference: Sections 25216.5(d), 25402(a)-25402(c) and 25960, Public Resources Code; and section 16, Governor's Exec. Order No. B-29-15 (April 1, 2015).

§ 1606. Filing by Manufacturers; Listing of Appliances in the MAEDbS.

(a) Filing of Statements.

Each manufacturer shall electronically file with the Executive Director through the MAEDbS a statement for each appliance that is sold or offered for sale in California. The

statement shall contain all of the information described in paragraphs (2) through (4) of this subsection and shall meet all of the requirements of paragraph (1) of this subsection and all other applicable requirements in this Article.

The effective dates of this section shall be the same as the effective dates shown in section 1605.1, 1605.2 or 1605.3 of this Article for appliances for which there is an energy efficiency, energy consumption, energy design, water efficiency, water consumption, or water design standard in section 1605.1, 1605.2, or 1605.3 of this Article. For appliances with no energy efficiency, energy consumption, energy design, water efficiency, water consumption, or water design standard in section 1605.1, 1605.2, or 1605.3 of this Article, the effective date of this section shall be one year after they are added to section 1601 of this Article, unless a different effective date is specified.

Exceptions to Section 1606(a) of this Article: Section 1606(a) of this Article is not applicable to:

1. external power supplies,

2. compressors,

3. portable air conditioners (except for spot air conditioners),

4. small electric motors, or

5. à la carte chargers meeting the EXCEPTION noted in section 1605.3(w)(2) of this Article.

(1) General Rules.

(A) Format and Categories. Each statement shall be in a format (including but not limited to computer formats) and in categories specified by the Executive Director.

(B) When Different Statements are Required. The Executive Director may establish, modify, and enforce schedules for the submittal of statements where it is reasonably necessary for orderly processing of submittals, for example when manufacturers or third parties often submit many statements simultaneously.

(C) Asterisks in Model Numbers. In filing any statement, the manufacturer may use asterisks as a substitute for letters, numbers, blanks, or other characters in the model number, provided that an asterisk (i) shall be used only for a part of the model number that does not indicate energy consumption, energy efficiency, water consumption, or water efficiency, or a design or feature affecting such efficiency or consumption; (ii) shall represent a single letter, number, blank, or other character at the asterisk's location in the model number; and (iii) shall not be used for any of the first four letters, numbers, blanks, or other characters in the model number.

(D) Different Functions. Except as provided in section 1606(a)(1)(G) of this Article, if the same appliance is sold or offered for sale as more than one type of appliance shown in Table X (for example, if the appliance can serve both water heating and pool heating functions), the manufacturer shall submit a separate statement for each model of that appliance type. Each appliance type for which a statement is submitted must match all the common identifiers shown in Table X.

(E) Multiple Statements. A manufacturer may electronically file statements through the MAEDbS for more than one appliance in a single submittal to the Executive Director. If a submittal contains statements for more than one appliance, there shall be only one statement for each appliance, except as provided in sections 1606(a)(1)(D) and 1606(a)(1)(G) of this Article. The Executive Director shall allow multiple statements to be submitted in the same electronic file under conditions she or he determines are reasonably necessary to ensure accuracy and compatibility with the MAEDbS.

(F) Split System Central Air Conditioners. The statement for split system air conditioners shall be for the combination of the compressor-containing unit and the non-compressor-containing unit tested under section 1604(c) of this Article.

(G) Combination Space-Heating and Water-Heating Appliances. Manufacturers of combination space-heating and water-heating appliances shall file two statements for each such appliance. The first statement shall contain the information listed in Table X for combination space-heating and water-heating appliances, and all other information shown in Table X for "all appliances;" and the second statement shall contain the information listed in Table X for the primary function of the appliance according to the determination required by sections 1605(e) and 1605(f) of this Article, and containing all other information shown in Table X for "all appliances." Each appliance type for which a statement is submitted must match all the common identifiers shown in Table X.

(2) Manufacturer Information.

(A) The name, address, telephone number, e-mail address, and, if available, fax number and URL (web site) address of the manufacturer; provided, however, that if a parent entity is filing on behalf of a subsidiary entity, if a subsidiary entity is filing on behalf of a parent entity, or if an affiliate entity is filing on behalf of an affiliate entity, then each entity shall be clearly identified and the information shall be provided for both entities.

(B) The name, address, telephone number, e-mail address, and, if available, fax number of the individual to contact concerning the statement pursuant to section 1606(a)(4) of this Article. There shall be only one individual to contact for each category (box) in the "Appliance" column of Table X, except that the individual may, during his or her absence, delegate his or her duties in this regard.

(C) The name, address, telephone number, e-mail address, and, if available, fax number of the person signing the declaration pursuant to section 1606(a)(4) of this Article.

(3) Testing and Performance Information.

(A) A statement that the appliance has been tested in accordance with all applicable requirements of sections 1603 and 1604 of this Article. If section 1604 of this Article provides more than one test method that may be used, the manufacturer shall identify which method was used.

(B) The name and address and, if available, telephone number, fax number, URL (web site) address, and e-mail address of the laboratory or other institution where the testing required by sections 1603 and 1604 of this Article was performed.

(C) The applicable information listed in Table X; provided, however, that submittal of information marked with "[1]" is voluntary for federally regulated appliances, and that submittal of information marked with "[2]" is voluntary for state-regulated appliances. Where there is text in the "Permissible Answers" column, the information provided must be one of the answers shown. If the text in the "Permissible Answers" column states "other (specify)," the information provided must be a specific response for the "Required Information" category (e.g., a response of "other" is not acceptable).

Exception 1. to Section 1606(a)(3)(C) of this Article:

If an appliance has an alternative test procedure pursuant to section 1603(c)(1) of this Article, or an alternative assessment method specified pursuant to section 1603(c)(2)(A) of this Article, then the statement shall include:

(1) the following information from Table X: Manufacturer's Name, Brand Name, Model Number, and Regulatory Status; and

(2) all information from Table X that is applicable to the appliance and that is produced during the alternative test procedure or the alternative assessment method; and

(3) all other energy performance information produced during the alternative test procedure or the alternative assessment method.

Exception 2. to Section 1606(a)(3)(C) of this Article:

If the Executive Director has specified that there is no test method for an appliance pursuant to section 1603(c)(2)(B) of this Article, then the statement shall include the following information from Table X: Manufacturer's Name, Brand Name, Model Number, and Regulatory Status.

EXCEPTION 3. to Section 1606(a)(3)(C):

Manufacturers of state-regulated LED lamps and LED versions of state-regulated small-diameter directional lamps may certify estimated values for rated lifetime until testing per section 1604 is complete. When reporting estimated values, the certification report shall describe the prediction method, which must be generally representative of the methods specified in 10 C.F.R. Appendix BB to subpart B of part 430, “Uniform Test Method for Measuring the Input Power, Lumen Output, Lamp Efficacy, Correlated Color Temperature (CCT), Color Rendering Index (CRI), Power Factor, Time to Failure, and Standby Mode Power of Integrated Light-Emitting Diode (LED) Lamps.” Manufacturers shall maintain records of the development of all estimated values and any associated initial test data. Manufacturers shall update the certification in the MAEDBS upon completion of the required test procedures for rated lifetime.

(D) How Tested Data Must Be Reported.

1. For any numerical value required by Table X that is produced by a test specified in section 1604 of this Article, the reported value shall be no higher for the value for which the consumer would prefer a high number, and no lower for the value for which the consumer would prefer a low number, than the values obtained by testing; unless different specific instructions are specified in the test method specified in section 1604 of this Article.

2. For any numerical value required by Table X that is produced by calculation from measured numerical test results, the reported value shall be no higher for the values where the consumer would prefer a high number than the exact result of the calculation, and no lower than the exact result of the calculation where the consumer would prefer a low number, than the values obtained by calculating, unless different specific instructions are specified in the test method specified in section 1604 of this Article.

3. Manufacturers may report:

a. numbers higher than tested values, where the consumer would, all other things being equal, prefer lower values (or is indifferent); and

b. numbers lower than tested values, where the consumer would, all other things being equal, prefer higher values (or is indifferent).

Example: An air conditioner is tested using the appropriate test method specified in section 1604 of this Article, and the test method does not include specific instructions about the precision of reporting.

- Cooling capacity is measured as: 36,014 Btu per hour.
- For cooling capacity, consumers prefer higher values.
- The manufacturer may not report any value over 36,014 Btu per hour.
- The manufacturer chooses to report 36,000 Btu per hour.
- Electrical energy use is measured at 3,487 watts.
- For electrical energy use, consumers prefer lower values.
- The manufacturer may not report any value under 3,487 watts.
- The manufacturer chooses to report 3,500 watts.
- Using the data the manufacturer chooses to report, EER = 36,000/3,500 = 10.285714.
- For EER, consumers prefer higher values.
- The manufacturer may not report any value of EER over 10.285714 (if EER is reported with only one decimal place, the maximum value would be 10.2).
- The manufacturer chooses to report EER = 10.2 Btu per watt hour.
- If the manufacturer had chosen to report the cooling capacity as 36,014 Btu per hour, and the electrical energy use as 3,487 watts, the calculated EER would have been 36,014/3,487 = 10.328076. In this case the manufacturer could not report any value of EER over 10.328076 (if EER is reported with only one decimal place, the maximum value would be 10.3).

Table X
Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
	All Appliances	* Manufacturer's Name	
		* Brand Name	
		* Model Number	
		Date model to be displayed	
		Regulatory Status	Federally regulated consumer product, federally regulated commercial and industrial equipment, non-federally regulated
A	Non-Commercial Refrigerators, Non-Commercial Refrigerator-Freezers, Non-Commercial Freezers	*Product Class	Category in Table A-2 or Table A-3 (specify)
		Access[1, 2]	Door, drawer, both door and drawer
		Kitchen Unit[1, 2]	True, False
		Refrigerator Volume	
		Freezer Volume	
		Total Volume	
		Adjusted Total Volume	
		Height	
		Width	
		Depth	
		Annual Energy Use (low)	
		Annual Energy Use (high)	
		Annual Energy Use (mean)	
		Anti-sweat Heater Switch	True, False
		Refrigerant Type[1, 2]	Ozone-depleting, non-ozone-depleting
		Insulation Type[1, 2]	Ozone-depleting, non-ozone-depleting

* "Identifier" information as described in section 1602(a) of this Article.
1 = Voluntary for federally regulated appliances
2 = Voluntary for state-regulated appliances

Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
A	Self-contained Commercial Refrigerators with or without doors, Self-contained Commercial Refrigerator-Freezers with or without doors, Self-contained Commercial Freezers with or without doors, Self-contained Commercial Refrigerators specifically designed for display and sale of bottled or canned beverages with or without doors, Remote Condensing Commercial Refrigerators, Remote Condensing Commercial Freezers, Commercial Ice Cream Freezers (Note: units with multiple compartments must certify data for each compartment)	*Cabinet Style	Ice cream cabinet; milk or beverage cabinet; milk, beverage, or ice cream cabinet; undercounter cabinet; other reach-in cabinet; pass-through cabinet; roll-in or roll-through cabinet; preparation table; buffet table; wedge case; work top table
		*Defrost System	Automatic, manual, partial-automatic
		*Type	Ice-cream application, low-temperature application, medium-temperature application, pull-down application
		Total Compartments (for hybrid models and refrigerator-freezers)	
		Equipment Family	Vertical open, semivertical open, horizontal open, vertical closed transparent, horizontal closed transparent, vertical closed solid, horizontal closed solid, service over counter
		Condensing Unit Configuration	Remote, self-contained
		Multiple Compartments Product Code	
		Total Display Area (TDA)	
		Total Volume	
		Height	
		Width	
		Depth	
		Anti-condensate Energy Consumption (AEC) (for hybrid models and refrigerator-freezers)	
		Condensate Evaporator Pan Energy Consumption (PEC) (for hybrid models and refrigerator-freezers)	
		Defrost Energy Consumption (DEC) (for hybrid models and refrigerator-freezers)	
		Fan Energy Consumption (FEC) (for hybrid models and refrigerator-freezers)	
		Compressor Energy Consumption (CEC) (for hybrid models and refrigerator-freezers)	
		Lighting Energy Consumption (LEC) (for hybrid models and refrigerator-freezers)	
		Other Energy Consumption (OEC) (for hybrid models and refrigerator-freezers)	
		Daily Energy Consumption	
		Calculated Daily Energy Consumption (CDEC)	
		Total Daily Energy Consumption (TDEC)	

* “Identifier” information as described in section 1602(a) of this Article.
1 = Voluntary for federally regulated appliances
2 = Voluntary for state-regulated appliances

Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
A		Refrigerant Type	Ozone-depleting, non-ozone-depleting
		Insulation Type	Ozone-depleting, non-ozone-depleting
	Automatic Commercial Ice-Makers	*Equipment Type	Ice-making head, remote-condensing, self-contained, both remote-condensing and remote-compressor
		*Cooling Type	Air, water
		*Ice Maker Process Type	Batch, continuous, cube, other (specify)
		Harvest Rate	
		Energy Consumption	
		Water Consumption	
		Ice Hardness Adjustment Factor (for continuous type models)	
	Water Dispensers	*Type	Bottle type; Bottle type with compartment; Pressure type, bubbler; Pressure type with compartment, bubbler; Pressure type, faucet; Pressure type with compartment, faucet, Point-of-Use
		*Condenser Cooling Medium	Air-cooled; Water-cooled
		*Style	Free-standing; Flush-to-Wall; Wall Hung; Wall Hung semi-recessed; Remote; Recessed
		*Refrigerated Compartment	
		Temperatures delivered	Cold only, cook (ambient) and cold, hot and cold
		Cooling Capacity (gallons/hour)	
		Heating Capacity (6-oz. cup per hour)	
		Standby Energy Consumption (kWh/day)	

* “Identifier” information as described in section 1602(a) of this Article.
1 = Voluntary for federally regulated appliances
2 = Voluntary for state-regulated appliances

Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
A	Walk-in Coolers, and Walk-in Freezers: Doors	Door Type	Passage door (medium temperature), passage door (low temperature), freight door (medium temperature), freight door (low temperature), display door (medium temperature), display door (low temperature)
		Door surface area (ft²)	
		Transparent reach-in?	Door, window, both
		Glass Type of Doors and Door Windows (if applicable)	1" triple pane insulated, 1" triple pane tempered, 2-pane Low-E Gas Fill, 3-pane gas fill, 3-pane heat reflective, 3-pane Low-E gas fill, 3-pane reflective gas fill, 3-pane heated, 3-pane unheated, none
		Anti-sweat heater power draw (W per ft² of door opening) (if applicable)	
		Door insulation R-value (if applicable)	
		All applicable design standards incorporated?	True, False
		Daily energy consumption (kWh/day)	
		Equipped with a timer, control system, or other demand-based control reducing lighting power and/or heater wire and/or other electricity-consuming device?	Lighting, heater wire, other electricity-consuming device, lighting + heater wire, lighting + other electricity-consuming device, heater wire + other electricity-consuming device, all, none
		Total rated lighting power (W) (if applicable)	
		Total rated heater wire power (W) (if applicable)	
		Total rated other electricity-consuming device power (W) (if applicable)	
	Walk-in Coolers, and Walk-in Freezers: Panels	Panel Type	Wall panels for walk-in coolers, ceiling panels for walk-in coolers, wall panels for walk-in freezers, ceiling panels for walk-in freezers, floor panels for walk-in freezers
		R-value of wall insulation (if applicable)	
		R-value of ceiling insulation (if applicable)	
		R-value of floor insulation (if applicable)	

* “Identifier” information as described in section 1602(a) of this Article.
1 = Voluntary for federally regulated appliances
2 = Voluntary for state-regulated appliances

Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
A	Walk-in Coolers, and Walk-in Freezers: Refrigeration Systems	Refrigeration System Type	Dedicated condensing system medium temperature indoor; dedicated condensing system medium temperature outdoor; dedicated condensing system low temperature indoor; dedicated condensing system low temperature outdoor; unit cooler medium temperature, unit cooler low temperature
		Is outdoor dedicated condensing system also certified (for indoor dedicated condensing systems only)?	True, False
		Model number for outdoor dedicated condensing system (only applicable for indoor dedicated condensing systems where outdoor dedicated condensing system is also certified)	
		Refrigeration system net capacity (BTU/hr) (if applicable)	
		Evaporator fan motor horsepower (if applicable)	
		Condenser fan motor horsepower (if applicable)	
		All applicable design requirements incorporated?	True, False
		Process cooling refrigeration system?	True, False
		Annual Walk-in Energy Factor (AWEF)	
		Configuration tested for certification (if applicable)	Condensing unit only, unit cooler only, single package dedicated system, matched pair

* “Identifier” information as described in section 1602(a) of this Article.
1 = Voluntary for federally regulated appliances
2 = Voluntary for state-regulated appliances

Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
A	Refrigerated Bottled or Canned Beverage Vending Machines	Equipment Class (reporting of Combination A or Combination B for models manufactured on or after January 8, 2019)	Class A, Class B, Combination A, Combination B
		Door Type	Glass front, closed front
		Machine use designation	Indoor, indoor/outdoor
		Maximum Daily Energy Consumption at 75°F. Ambient Temperature	
		Standard Vendible Capacity	
		Low Power State – lighting	True, false
		Low Power State – refrigeration	True, false
		Low Power State – whole machine	True, false
		On-Site Adjustable by Operator or Owner	True, false
		Refrigerant Type	Ozone-depleting, non-ozone-depleting
		Insulation Type	Ozone-depleting, non-ozone-depleting
		Internal volume	
B	Room Air Conditioners and Room Air-Conditioning Heat Pumps	*Voltage	
		*Electrical Phase	1, 3
		*Type	Room air conditioner, room air conditioning heat pump, casement-only room air conditioner, casement-slider room air conditioner.
		*Louvered Sides	True, False
		Cooling Capacity at 95°F	
		Electrical Input at 95°F	
		Combined Energy Efficiency Ratio at 95°F	
		Standby and Off Mode Annual Energy Consumption	
		Heating Capability	Heat pump, electric resistance heating, heat pump and electric resistance heating, no heating capability
		Refrigerant Type[1]	Ozone-depleting, non-ozone-depleting

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
B	Packaged Terminal Air Conditioners and Packaged Terminal Heat Pumps	*Voltage	
		*Electrical Phase	1, 3
		*Type	PTAC, PTHP
		Size	Standard, non-standard
		Cooling Capacity at 95°F	
		Electrical Input at 95°F	
		Energy Efficiency Ratio (EER) at 95°F	
		Heating Capability	Heat pump, electric resistance heating, heat pump and electric resistance heating, no heating capability
		Heating Capacity (for models with heating capability only)	
		Electrical Input (for models with heating capability only)	
		Coefficient of Performance (for models with heating capability only)	
		Refrigerant Type[1]	Ozone-depleting, non-ozone-depleting
		Compressor Power[1]	
C	Air Filters manufactured on or after April 1, 2019	Air filter sizes tested	Small, medium, and large
		Minimum Efficiency Reporting Value (MERV) (reportable for models tested to ASHRAE 52.2-2012 only)	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, N/A
		Particle Size Efficiency for 0.3 to 1.0 µm particle size	
		Particle Size Efficiency for 1.0 to 3.0 µm particle size	
		Particle Size Efficiency for 3.0 to 10.0 µm particle size	
		Test Procedure used to determine air filter efficiency performance	AHRI 680-2009, or ASHRAE 52.2-2012
		Air Filter Length	
		Air Filter Width	
		Air Filter Depth	
		Air Filter Face Area	
		Face Velocity Utilized for the test procedure	Value in feet per minute
		Airflow Rate value 1	
		Airflow Rate value 2	
		Airflow Rate value 3	
		Airflow Rate value 4	
		Airflow Rate value 5-Maximum Rated Airflow Rate	
		Initial Resistance at air flow rate value 1	Test results to one-hundredths of an Inch of Water Column
		Initial Resistance at air flow rate value 2	Test results to one-hundredths of an Inch of Water Column
		Initial Resistance at air flow rate value 3	Test results to one-hundredths of an Inch of Water Column
		Initial Resistance at air flow rate value 4	Test results to one-hundredths of an Inch of Water Column
		Initial Resistance at air flow rate value 5	Test results to one-hundredths of an Inch of Water Column

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
C	Air Filters (cont'd)	Final Resistance at the point where test is terminated and results determined	Test results to one-hundredths of an Inch of Water Column
		Dust Holding Capacity at the maximum rated airflow rate as published by the manufacturer	Test results in multiples of one gram
		Airflow Rate value determined at an Initial Resistance of 0.1 Inch of Water Column	
C	All Central Air Conditioners and Central Air-Conditioning Heat Pumps	*Coil Model Number with which Compressor was Tested (for split systems only)	
		*Type	Air conditioner, heat pump (heating and cooling), heat pump (heating only), heat pump (cooling only)
		*Energy Source for Cooling	Electricity, natural gas
		*Energy Source for Heating	Gas, oil, electric heat pump, electric resistance, heat pump and electric resistance, none
		*AHRI Classification	
		*Voltage	
		*Electrical Phase	1, 3
		Variable Refrigerant Flow	True, False
		Heat Recovery (for Variable Refrigerant Flow models only)	True, False
		Vertical Air Conditioner (for single package models only) (required on or after January 1, 2010)	True, False
		Refrigerant Type[1, 2]	Ozone-depleting, non-ozone-depleting
		Thermostatic Expansion Valve (for air-source or air-cooled models only)	True, False
		Compressor Motor Design	Single-speed, dual-speed, multiple-speed, variable-speed
	Air-Cooled, Single Package CAC < 65,000 Btu/hour and Air-Cooled, Split System CAC < 65,000 Btu/hour	Seasonal Energy Efficiency Ratio (SEER)[3]	
		Cooling Capacity at 82°F[3]	
		Electrical Input at 82°F[3]	
		Degradation Coefficient at 82°F[3]	
		Cooling Capacity at 95°F	
		Electrical Input at 95°F	
		Energy Efficiency Ratio (EER) at 95°F	
		Average Off Mode Power Consumption (Watts)	
		Space-constrained Product	Space-constrained; variable speed mini-split; small duct, high velocity; not space-constrained

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3 = Voluntary for single package vertical air conditioners and single package vertical heat pumps only.

Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
C	Air-Source, Single Package Heat Pumps < 65,000 Btu/hour and Air-Source Split System Heat Pumps < 65,000 Btu/hour	Seasonal Energy Efficiency Ratio (SEER)	
		Cooling Capacity at 82°F[3]	
		Electrical Input at 82°F[3]	
		Degradation Coefficient at 82°F[3]	
		Cooling Capacity at 95°F	
		Electrical Input at 95°F	
		Energy Efficiency Ratio (EER) at 95°F	
		Average Off Mode Power Consumption (Watts) (for models manufactured on or after January 1, 2015 only)	
		Heating Seasonal Performance Factor (HSPF) [3]	
		Heating Capacity	
		Electrical Input	
		Coefficient of Performance (COP) at 47°F (single package vertical heat pumps only)	
		Space-constrained Product	Space-constrained; variable speed mini-split; small duct, high velocity; not space-constrained
	Air-Cooled, Single Package CAC ≥ 65,000 and < 760,000 Btu/hour and Air-Cooled, Split System CAC ≥ 65,000 and < 760,000 Btu/hour	Cooling Capacity at 95°F	
		Electrical Input at 95°F	
		Energy Efficiency Ratio (EER) at 95°F (effective for models manufactured before January 1, 2018)	
		Integrated Energy Efficiency Ratio (IEER) (effective for models manufactured on or after January 1, 2018)	
		Integrated Part Load Value (IPLV) If Applicable	
		Heating System Type[1, 2]	Gas, oil, electric resistance, none
	Air-Source, Single Package Heat Pumps ≥ 65,000 Btu/hour and < 760,000 Btu/hour; and Air-Source, Split-System Heat Pumps ≥ 65,000 and < 760,000 Btu/hour	Cooling Capacity at 95°F	
		Electrical Input at 95°F	
		Energy Efficiency Ratio (EER) at 95°F (effective for models manufactured before January 1, 2018)	
		Integrated Energy Efficiency Ratio (IEER) (effective for models manufactured on or after January 1, 2018)	
		Integrated Part Load Value (IPLV) If Applicable	
		Heating Capacity at 47°F	
		Electrical Input at 47°F	
		Coefficient of Performance (COP) at 47°F	
		Heating Capacity at 17°F	
		Electrical Input at 17°F	
		Coefficient of Performance (COP) at 17°F	
	Evaporatively Cooled Single Package CAC < 760,000 Btu/hour and Evaporatively Cooled Split System CAC < 760,000 Btu/hour	Cooling Capacity at 95°F	
		Electrical Input at 95°F	
		Energy Efficiency Ratio (EER) at 95°F	
		Integrated Part Load Value (IPLV) If Applicable	
		Heating System Type[1, 2]	Gas, oil, electric resistance, none

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
C	Water-Cooled Single-Package CAC < 760,000 Btu/hour and Water-Cooled, Split System CAC < 760,000 Btu/hour	Compressor Electrical Input (for models ≥ 65,000 Btu/hour only)	
		Indoor Fan Electrical Input (for models ≥ 65,000 Btu/hour only)[3]	
		Outdoor Fan Electrical Input (for models ≥ 65,000 Btu/hour only)[3]	
		Cooling Capacity at 85°F Entering Water Temperature	
		Electrical Input at 85°F Entering Water Temperature	
		Energy Efficiency Ratio (EER) at 85°F Entering Water Temperature	
		Low Temperature EER at 70°F Entering Water Temperature (for models < 65,000 Btu/hour only)	
		Heating System Type[1]	Gas, oil electric resistance, none
	Water-Source, Single Package Heat Pumps < 760,000 Btu/hour and Water-Source Split System Heat Pumps < 760,000 Btu/hour	Compressor Electrical Input (for models ≥ 65,000 Btu/hour only)	
		Indoor Fan Electrical Input (for models ≥ 65,000 Btu/hour only)[3]	
		Outdoor Fan Electrical Input (for models ≥ 65,000 Btu/hour only)[3]	
		Cooling Capacity at 86°F Entering Water Temperature	
		Electrical Input at 86°F Entering Water Temperature	
		Energy Efficiency Ratio (EER) at 86°F Entering Water Temperature	
		Heating Capacity at 68°F Entering Water Temperature	
		Electrical Input at 68°F Entering Water Temperature	
		Coefficient of Performance (COP) at 68°F Entering Water Temperature	
	Ground Water-Source, Single Package Heat Pumps and Ground Water-Source Split System Heat Pumps	Compressor Electrical Input (for models ≥ 65,000 Btu/hour only)	
		Indoor Fan Electrical Input (for models ≥ 65,000 Btu/hour only)[3]	
		Outdoor Fan Electrical Input (for models ≥ 65,000 Btu/hour only)[3]	
		Cooling Capacity at 59°F Entering Water Temperature (for all sizes, including but not limited to models ≥ 240,000 Btu/hour)	
		Electrical Input at 59°F Entering Water Temperature (for all sizes, including but not limited to models ≥ 240,000 Btu/hour)	
		Energy Efficiency Ratio (EER) at 59°F Entering Water Temperature (for all sizes, including but not limited to models ≥ 240,000 Btu/hour)	
		Heating Capacity at 50°F Entering Water Temperature (for all sizes, including but not limited to models ≥ 240,000 Btu/hour)	

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3= Report both fields for split systems; either indoor or outdoor fan electrical input (not both) for single package models.

Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
C	Ground Water-Source, Single Package Heat Pumps and Ground Water-Source Split System Heat Pumps cont'd.	Electrical Input at 50°F Entering Water Temperature (for all sizes, including but not limited to models ≥ 240,000 Btu/hour)	
		Coefficient of Performance (COP) at 50°F Entering Water Temperature (for all sizes, including but not limited to models ≥ 240,000 Btu/hour)	
	Ground-Source, Closed-Loop, Single Package Heat Pumps and Ground-Source, Closed-Loop, Split System Heat Pumps	Compressor Electrical Input (for models ≥ 65,000 Btu/hour only)	
		Indoor Fan Electrical Input (for models ≥ 65,000 Btu/hour only) [3]	
		Outdoor Fan Electrical Input (for models ≥ 65,000 Btu/hour only) [3]	
		Cooling Capacity at 77°F Entering Brine Temperature	
		Electrical Input at 77°F Entering Brine Temperature	
		Energy Efficiency Ratio (EER) at 77°F Entering Brine Temperature	
		Heating Capacity at 32°F Entering Brine Temperature	
		Electrical Input at 32°F Entering Brine Temperature	
		Coefficient of Performance (COP) at 32°F Entering Brine Temperature	
	Gas-Fired Air Conditioners and Gas-Fired Heat Pumps	Cooling Capacity – (cooling bin summary)	
		Gas Input While Cooling – (cooling bin summary)	
		Electric Input While Cooling – (cooling bin summary)	
		Cooling COP – Gas	
		Cooling COP – Electric	
		Heating Output – (heating bin summary)	
		Gas Input While Heating – (heating bin summary)	
		Electric Input While Heating – (heating bin summary)	
		Heating COP – Gas	
		Heating COP – Electric	

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
C	Computer Room Air Conditioners	Equipment Type	Air-cooled, water-cooled, water-cooled with a fluid economizer, glycol-cooled, glycol-cooled with a fluid economizer, evaporatively cooled; chilled-water-cooled
		Air Flow Direction	Downflow, horizontal flow, upflow
		Net Sensible Cooling Capacity (air-cooled, water-cooled, glycol-cooled, chilled-water-cooled models only)	
		Downflow Unit Power Input (watts) (air-cooled, water-cooled, glycol-cooled, chilled-water-cooled models only)	
		Downflow Unit SCOP (air-cooled, water-cooled, glycol-cooled, chilled-water-cooled models only)	
		Upflow Unit Power Input (watts) (air-cooled, water-cooled, glycol-cooled, chilled-water-cooled models only)	
		Upflow Unit SCOP(air-cooled, water-cooled, glycol-cooled, chilled-water-cooled models only)	
		Cooling Capacity at 95°F (evaporatively cooled models only)	
		Electrical Input at 95°F (evaporatively cooled models only)	
		Energy Efficiency Ratio (EER) at 95°F (evaporatively cooled models only)	
	Heat pump water-heating packages	Voltage*	
		Phase*	1, 3
		Refrigerant Type*	Ozone-depleting, non-ozone-depleting
		Compressor Motor Design*	Single-speed, dual-speed, multiple-speed, variable speed
		OD Fan Motor Design*	Single-speed, dual-speed, multiple-speed, variable speed
		Model number includes all components?	True, False
		Is the model designed for space cooling?	True, False
		Cooling Capacity (BTU per hour) if applicable	
		Cooing power input (watts) if applicable	
		Energy Efficiency Ratio (EER) if applicable	
		Integrated part load value (IPLV)	
		Heating Capacity (BTU per hour) at 47°F	
		Heating power input (watts) at 47°F	
		Coefficient of Performance (COP) at 47°F	
		Heating Capacity (BTU per hour) at 17°F	
		Heating power input (watts) at 17°F	
		Coefficient of Performance (COP) at 17°F	
		Heat Capacity (BTU per hour) of heat reclaim[2]	
		COPR of heat reclaim[2]	

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
D	Spot Air Conditioners	*Type	Single package, air-cooled; single package, evaporatively-cooled; split system: air-cooled condensing unit, coil with blower; split system: evaporatively-cooled condensing unit, coil alone; single package, air-cooled (FD); single package, evaporatively-cooled (FD); split system: air-cooled condensing unit, coil with blower (FD); split system: evaporatively-cooled condensing unit, coil alone (FD)
		Cooling Capacity	
		Total Electrical Input	
		Cooling Efficiency Ratio (CER)	
		Fan Electrical Input	
		Refrigerant Type	Ozone-depleting, non-ozone-depleting
	Evaporative Coolers	*Type	Direct, indirect, indirect/direct
		Evaporative Media Saturation Effectiveness (%) (for direct evaporative coolers only)	
		Media Type (for direct evaporative coolers only)	Expanded paper, woven plastic, aspen wood, rigid cellulose, other (specify).
		Cooling Effectiveness (for indirect evaporative coolers only)	
		Total Power (watts)	
		Airflow Rate (CFM)	
		ECER	
	Ceiling Fans	Ceiling fan type (required for models manufactured on or after January 21, 2020 only)	High-speed small-diameter (HSSD), hugger, large diameter, standard, very small-diameter (VSD)
		CFM (low, medium, high)	
		Watts (low, medium, high)	
		Efficacy (low, medium, high) [CFM/watt] (required for models manufactured before January 21, 2020 only)	
		Efficiency (CFM/Watt) (required for models manufactured on or after January 21, 2020 only)	
		Fan speed controls separate from light controls	True, false
		Adjustable Speed Controls	(Specify) speed, variable
		Reversible Fan Action Capable	True, False, Exception [See section 1605.1(d)(1)(A)3. of this Article]
		Light Source Type	Compact fluorescent, incandescent, other, None

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Table X Continued - Data Submittal Requirements

	Appliance	Required Information	Permissible Answers
D	Ceiling Fan Light Kits manufactured before January 21, 2020	Socket Type	Medium screw base, pin-based; other
		Packaged with all appropriate lamps to fill all sockets	True, False
		Screw-based Lamps Requirement (Screw-base only)	Meet 1605.1(d)(2)(A)1. or 2. of this Article (specify)
		Meet 1605.1(d)(2)(B) (pin-based sockets only)	True, False
		Operate with lamps totaling more than 190 watts (other socket types only)	True, False
	Ceiling Fan Light Kits manufactured on or after January 21, 2020	Socket Type	Medium screw base, pin-based. integrated SSL, other
		Packaged with lamps to fill all sockets	True, False
		Lumens for each basic model of lamp or each basic model of integrated SSL (lm)	
		Rated wattage (watts)	
		Efficacy (lm/W)	
		Medium screw base sockets packaged with compact fluorescent lamps	True, False
		Medium screw base compact fluorescent lamps meet section 1605.1(d)(2)(D)1. (medium screw base sockets packaged with compact fluorescent lamps only)	True, False
		Pin-based sockets for fluorescent lamps	True, False
		Uses an electronic ballast (pin-based sockets for fluorescent lamps only)	True, False
	Whole House Fans and Residential Exhaust Fans	*Residential Exhaust Fan Type	Inline single-port, Inline multi-port, Range hood, Bathroom and utility room
		*Whole-House Fan Type	Belt-drive single-fan, Belt-drive dual-fan, Direct-drive single-fan, Direct-drive dual-fan
		Fan Motor Power (watts)	
		Air Flow (CFM)	
		Air Flow Efficiency (CFM/watt)	
	Dehumidifiers	Product capacity (pints per day)	
		Energy Factor	
	Residential Furnace Fans	Furnace Fan Types	Non-weatherized, non-condensing gas (NWG-NC); Non-weatherized, condensing gas (NWG-C); Weatherized non-condensing gas (WG-NC); Non-weatherized , non-condensing oil (NWO-NC); Non-weatherized electric furnace/modular blower fan (NWEF/NWMB); Mobile home non-weatherized, non-condensing gas (MH-NWG-NC); Mobile home non-weatherized, condensing gas (MH-NWG-C); Mobile home electric furnace/modular blower fan (MH-EF/MB); Mobile home non-weatherized oil (MG-NOW); Mobile home weatherized gas
		Wattage	
		Airflow at the maximum airflow-control setting (in cfm) (Q_{Max})	
		Fan Energy Rating (FER)	

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
E	All Space Heaters	*Energy Source	Natural gas, LPG, oil, combination (natural gas and oil), electricity
		*Burner Type	Induced draft, luminous, injection type, power, pressure
		Constant burning pilot light, (for gas or oil models only)	True, False
		*Labeled for Outdoor Installation	True, False
		*Electrical Phase	1, 3, none
		Draft Equipment[1, 2]	Draft hood, draft diverter, barometric regulator, none
		Off-Cycle Devices	Stack damper, electro-mechanical inlet damper, electro-mechanical flue damper, none
		Flue Gas	Condensing, non-condensing
		Control	Single-stage, two-stage modulating, step modulating
		Fan Motor Design (furnaces only)[1, 2]	Single-speed, dual-speed, multiple-speed, variable speed
		Total Nominal Fan Motor Horsepower (furnaces only)	
		Fan Motor Type (furnaces only)	Premium, standard
		Fan Motor Power Factor (furnaces with variable-speed motors only) [1, 2]	
		Pump Motor Design (boilers only). Note: This information is not required for boilers that are not provided with a pump.	Single-speed, dual-speed, multiple-speed, variable speed
		Total Nominal Pump Motor Horsepower (boilers only). Note: This information is not required for boilers that are not provided with a pump.	
		Pump Motor Type (boilers only). Note: This information is not required for boilers that are not provided with a pump.	Premium, standard
		Pump Motor Power Factor (boilers with variable-speed motors only)[1, 2]	
		Nameplate Input Rating	
		Rated Output	

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
E	Central Furnaces	*Mobile Home	True, False
		*Air Flow Direction	Up, Down, Horizontal
		Weatherized (required for non mobile-home furnaces manufactured on or after November 19, 2015 only)	True, False
		Fan Blower Capacity, High, at 0.5" W.C. [1, 2]	
		Fan Blower Capacity, Low, at 0.5" W.C. [1, 2]	
		Thermal Efficiency (for models ≥ 225,000 Btu/hour input and for three-phase equipment < 225,000 Btu/hour input for which the manufacturer chooses to test using 10 C.F.R. sections 431.75 and 431.76)	
		Standby Watts [controls, not fan energy] (for models ≥ 225,000 Btu/hour input only) [1, 2]	
		Annual Fuel Energy Consumption (for models < 225,000 Btu/hour input only, except for three-phase equipment for which the manufacturer chooses to test using 10 C.F.R. sections 431.75 and 431.76)	
		Annual Fuel Utilization Efficiency [AFUE] (for models < 225,000 Btu/hour input only, except for three-phase equipment for which the manufacturer chooses to test using 10 C.F.R. sections 431.75 and 431.76)	
		Annual Auxiliary Electrical Energy Consumption (for models < 225,000 Btu/hour input only, except for three-phase equipment for which the manufacturer chooses to test using 10 C.F.R. sections 431.75 and 431.76)	
		Thermal Efficiency at Minimum Capacity Provided and Allowed by the Controls (for models ≥ 225,000 Btu/hour input only) [1, 2]	
		Maximum Standby Mode Electrical Power Consumption (Watts) (applies to models manufactured on or after May 1, 2013 only) [1, 2]	
		Maximum Off Mode Electrical Power Consumption (Watts) (applies to models manufactured on or after May 1, 2013 only) [1, 2]	
	Room Heaters, Floor Furnaces, and Wall Furnaces	*Type	Room heater (vented fan); room heater (gravity); floor furnace (fan); floor furnace (gravity); wall furnace (direct vent fan); wall furnace (direct vent gravity); wall furnace (vented fan); wall furnace (vented gravity)
		Annual Fuel Utilization Efficiency (AFUE)	
		Auxiliary Electric Power (for fan-type heaters only)	
		Average Annual Auxiliary Electrical Energy Consumption (for fan-type heaters only)[1]	

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
E	Duct Furnaces and Unit Heaters	*Type	Duct furnace; low static unit heater; high static unit heater; floor-mounted unit heater
		Thermal Efficiency at Maximum Rated Capacity (mandatory for duct furnaces, voluntary for unit heaters only)	
		Energy Consumption During Standby (mandatory for duct furnaces, voluntary for unit heaters only)	
		Thermal Efficiency at Minimum Rated Capacity (mandatory for duct furnaces, voluntary for unit heaters only)	
		Power-Venting	True, False
		Automatic Flue Damper	True, False
	Infrared Gas Space Heaters	*Type	Patio heater, non-patio heater
		Intensity	High, low
		Radiant Tube Type	True, False
		Portable	True, False
		Vented	True, False
		Physically Possible to Measure Radiant Coefficient	True, False
		Combustion Efficiency (for models using ANSI test method only)	
		Radiant Coefficient (for models using ANSI test method only; for models for which it is physically possible to measure radiant coefficient only)	
		Effective Heating Area (for patio heaters only)	
		Efficiency Index (for patio only)	
	Combination Space-Heating and Water-Heating Equipment	*Primary Function	Primary function is space heating, secondary function is domestic water heating; primary function is domestic water heating, secondary function is space heating
		Volume (measured)	
		Volume (rated)	
		Energy Factor (for those models whose primary function is water heating)	
		Effective Space-Heating Efficiency (CA_{AFUE}) (for those models whose primary function is water heating)	
		Annual Fuel Utilization Efficiency (AFUE) (for those models whose primary function is space heating)	
		Effective Water-Heating Efficiency (CA_{EF}) (for those models whose primary function is space heating)	
		Combined Annual Efficiency (CAE)	

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
E	Boilers	*Type	Steam, hot water
		Natural Draft (for gas-fired steam models manufactured on or after March 2, 2012 and ≥ 300,000 Btu/hour input only)	True, False
		Design	Copper, cast iron, other
		Automatic means for adjusting water temperature (small hot water boilers only)	True, False
		Input at Minimum Capacity[1]	
		Output at Minimum Capacity[1]	
		Combustion Efficiency (for models ≥ 300,000 Btu/hour input only)	
		Thermal Efficiency (for models ≥ 300,000 Btu/hour input and < 2,500,000 Btu/hour input only)	
		Thermal Efficiency (for models ≥ 2,500,000 Btu/hour input only)[1]	
		Standby Loss (for packaged boilers ≥ 300,000 Btu/hour input only) [1]	
		Standby Loss (for non-packaged boilers ≥ 300,000 Btu/hour input only) [2]	
		Thermal Efficiency at Minimum Capacity Rating (for non-packaged boilers ≥ 300,000 Btu/hour input only)	
		AFUE (for models < 300,000 Btu/hour input only)	
F	All Water Heaters	*Energy Source	Natural gas, LPG, oil, electric resistance, heat pump
		Rated Volume (except booster heaters, hot water dispensers, and large instantaneous water heaters < 10 gallons capacity)	
		Measured Volume (water heaters regulated under subpart G of 10 C.F.R. part 431 as of January 1, 2017 only)	
		Input Rating (if applicable)	
		Heat Traps (for storage models only)	True, False
		Ozone Depleting Substance in Insulation[1, 2]	True, False
		Ozone Depleting Substance in Refrigerant (for heat pump water heaters only) [1, 2]	True, False
		Constant burning pilot light (for large gas and oil models only)	True, False
		Mobile Home	True, False

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
F	Water Heaters Regulated Under 10 C.F.R. section 430.32(d)	Water Heater Type	Gas-fired storage, oil-fired storage, electric storage, tabletop, instantaneous gas-fired, instantaneous electric, grid-enabled
		First Hour Rating (for storage models only)	
		Maximum Gallons Per Minute (for instantaneous models only)	
		Recovery Efficiency	
		Annual Electrical Energy Consumption	
		Annual Fossil Fuel Energy Consumption (fossil-fuel-fired models only)	
		Draw Pattern	Very small, low, medium, high
		Uniform Energy Factor	
		Pilot Light Energy Consumption (for gas instantaneous models only)	
	Water Heaters Regulated Under 10 C.F.R. Section 431.110 (EXCEPT residential-duty commercial water heaters)	Water Heater Type	Electric storage; gas-fired storage; oil-fired storage; gas-fired instantaneous; oil-fired instantaneous;
		Thermal Efficiency	
		Standby Loss, %/hr (electric models only) (except for those models > 140 gallons for which exemption from standby loss standard is claimed). Note: This data requirement is mandatory for all models except instantaneous models in which the data requirement is voluntary.	
		Standby Loss, Btu/hr (fossil-fuel-fired models only) (except for those models > 140 gallons for which exemption from standby loss standard is claimed). Note: This data requirement is mandatory for all models except instantaneous models in which the data requirement is voluntary.	
		Electrical Power During Recovery While Appliance is Heating (for storage models only)	
		Electrical Power During Standby	
		R-value of Insulation (for models > 140 gallons only) for which exemption from standby loss is claimed	

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
F	Water Heaters Regulated Under 10 C.F.R. Section 431.110 (EXCEPT residential-duty commercial water heaters) (cont'd)	Flue Damper (for models > 140 gallons only)	True, False
		Fan Assisted Combustion (for models > 140 gallons only)	True, False
		Hot Water Supply Boiler (for instantaneous models with input => 300,000 Btu/hour and <= 12,500,000 Btu/hour only)	True, False
	Residential Duty Commercial Water Heaters	Water Heater Type	Gas-fired storage, oil-fired storage, electric instantaneous
		Volume	
		Input	
		Draw Pattern	Very small, low, medium, high
		Uniform Energy Factor	
G	Heat Pump Pool Heaters	Heating Capacity at Standard Temperature Rating	
		Readily-Accessible On-Off Switch	True, False
		Coefficient of Performance at Standard Temperature Rating	
		Heating Capacity at Low Temperature Rating	
		Coefficient of Performance at Low Temperature Rating	
		Average Coefficient of Performance (COP) at Standard Temperature Rating and Low Temperature Rating	
		Refrigerant Type[1, 2]	Ozone-depleting, non-ozone-depleting
	Other Pool Heaters	Energy Source	Natural gas, LPG, oil, electric resistance
		Constant Burning Pilot Light (for gas models)	True, False
		Input	
		Thermal Efficiency	

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
	Pumps (data collection required for models manufactured on or after January 27, 2020 only)	Equipment Class	Category in Table G-2
		Total Pump Head in feet at BEP	
		Total Pump Head in feet at nominal speed	
		Volume per unit time (flow rate) in gallons per minute (gpm) at BEP	
		Volume per unit time (flow rate) in gallons per minute (gpm) at nominal speed	
		Nominal speed of rotation (rpm)	
		Calculated driver power input at each load point *i* (P^{in}_i), corrected to nominal speed, in horsepower (hp)[3]	
		Driver power input at each load point *i* (P^{in}_i), corrected to nominal speed, in horsepower (hp)[4]	
		Driver power input (measured as the input power to the driver and controls) at each load point *i* (P^{in}_i), corrected to nominal speed, in horsepower (hp)[5]	
		Full impeller diameter in inches	
		PEI_{CL} calculated or tested[4]	
		PEI_{VL} calculated or tested[5]	
		Number of stages tested RSV and ST pumps only)	
		Pump efficiency at BEP in percent (%) [1,3,4]	
		Pump efficiency at BEP in PER_{CL}[1,3,4]	
		Pump efficiency at BEP in percent (%) [1,5]	
		Pump efficiency at BEP in PER_{VL}[1,5]	
		Pump configuration	
		Nominal motor efficiency in percent (%)[4,5,6]	
		Motor horsepower (hp) for the motor with which the pump is being rated[4,5,6]	
		Bowl diameter in inches (ST pumps only)[3,4,5]	
		PEI_{CL}	
		PEI_{VL}	
		C-value	

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3 = For pumps tested to the test methods prescribed in 10 C.F.R. section III of appendix A to subpart Y of part 431.
4 = For pumps tested to the test methods prescribed in 10 C.F.R. section IV or V of appendix A to subpart Y of part 431.
5 = For pumps tested to the test methods prescribed in 10 C.F.R. section VI or VII of appendix A to subpart Y of part 431.
6 = For pumps sold with electric motors regulated by DOE's energy conservation standards for electric motors at §431.25.

Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
G	Residential Pool Pump and Motor Combinations and Replacement Residential Pool Pump Motors	Motor Construction	PSC, Capacitor Start-Capacitor Run, ECM, Capacitor Start-induction run, split-phase Permanent Magnet Synchronous
		Motor Design	Single-speed, dual-speed, multi-speed, variable-speed
		Frame	
		Speed (in RPM)	
		Motor has Capability of Operating at Two or More Speeds with the Low Speed having a Rotation Rate that is No More than One-Half of the Motor's Maximum Rotation Rate	True, False
		Unit Type	Residential Pool Pump and Motor Combination, Replacement Residential Pool Pump Motor
		Pool Pump Motor Capacity	
		Motor Service Factor	
		Motor Efficiency (%)	
		Nameplate Horsepower	
		Pump Control Speed (compliance with section 1605.3(g)(5)(B)2. of this Article)	True, False
		Flow for Curve 'A' (in gpm)	
		Power for Curve 'A' (in watts)	
		Energy Factor for Curve 'A' (in gallons per watt-hour)	
		Flow for Curve 'B' (in gpm)	
		Power for Curve 'B' (in watts)	
		Energy Factor for Curve 'B' (in gallons per watt-hour)	
		Flow for Curve 'C' (in gpm)	
		Power for Curve 'C' (in watts)	
		Energy Factor for Curve 'C' (in gallons per watt-hour)	

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
G	Portable Electric Spas	*Spa Type	Combination Spa, Exercise Spa, Inflatable Spa, Standard Spa
		*Tested Spa Cover Model Number (applies to models manufactured on or after June 1, 2019 only)	
		Tested Spa Cover Manufacturer (applies to models manufactured on or after June 1, 2019 only)	
		Rated Capacity (number of people)	
		Rated Voltage (volts)	
		Tested Spa Cover Is Insulated (applies to models manufactured on or after June 1, 2019 only)	True, False
		Spa Enclosure is Fully Insulated	True, False
		Spa Includes a Skimmer	True, False
		Maximum water temperature setting is less than 100°F (for exercise spas and the exercise spa portion of combination spas only) (applies to models manufactured on or after June 1, 2019 only)	True, False
		Portable Electric Spa Rated Volume (gallons) (for standard spas, inflatable spas, and the standard spa portion of combination spas only)	
		Exercise Spa Rated Volume (gallons) (for exercise spas and the exercise spa portion of combination spas only)	
		Portable Electric Spa Fill Volume (gallons) (for standard spas, inflatable spas, and the standard spa portion of combination spas only)	
		Exercise Spa Fill Volume (gallons) (for exercise spas and the exercise spa portion of combination spas only)	
		Portable Electric Spa Normalized Standby Power (watts) (for standard spas, inflatable spas, and the standard spa portion of combination spas only)	
		Exercise Spa Normalized Standby Power (watts) (for exercise spas and the exercise spa portion of combination spas only)	

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
H	Plumbing Fittings	*Type	Showerhead, lavatory faucet (independent or collective), public lavatory faucet, kitchen faucet, metering faucet (independent or collective), lavatory replacement aerator, kitchen replacement aerator, wash fountain, lift-type tub spout diverter, turn-type tub spout diverter, pull-type tub spout diverter, push-type tub spout diverter
		Flow Rate	
		Pulsating (for showerheads only)	True, False
		Minimum Flow rate at 45 psi and 80 psi (for showerheads manufactured on or after July 1, 2016)	
		Minimum Flow rate at 20 psi (for showerheads manufactured on or after July 1, 2016)	
		Rim Space (for wash fountains only)	
		Tub Spout Leakage Rate When New	
		Tub Spout Leakage Rate After 15,000 Cycles	
	Commercial Pre-rinse Spray Valves	Product Class (required for models manufactured on or after January 28, 2019)	Product Class 1, Product Class 2, Product Class 3
		Flow Rate (gpm)	
		Spray force (ounce-force (ozf))	
I	Plumbing Fixtures	*Type	Blowout water closet, gravity tank type water closet, duel-flush water closet, electromechanical hydraulic water closet, flushometer tank water closet, prison-type urinal, prison-type water closet, flushometer valve water closet, trough-type urinal, wall-mounted urinal, waterless urinal, other type urinal, vacuum type water closet
		Water Consumption (dual-flush effective volume for dual-flush water closet)	
		Passes waste extraction test	True, False
		Waste extraction value	grams
		Trough Length (trough-type urinals only)	

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
J	Fluorescent Lamp Ballasts	*Ballast Input Voltage	120, 277, between 120 and 277, other (specify)
		*Number of Lamps	
		*Type of Fluorescent Lamp	F34T12, F96T12/ES, F96T12HO/ES, (2-foot U-shaped, 4-foot medium bipin, 4-foot miniature bipin high output, 4-foot miniature bipin standard output, 8-foot high output, 8-foot slim line
		Product Class (from U.S. DOE CCMS product template)	
		Designed for Dimming to 50% or Less of Maximum Output	True, False
		Power Factor	
		*Building Application	Commercial, designed (not classified as sign ballasts) to operate 8-foot high output lamps, designed and labeled as sign ballasts to operate 8-foot high output lamps, residential; not classified as residential, other
		Sign Ballasts	True, False
		Input Power Watts	
		Ballast Luminous Efficiency	
		Circuit Design	Cathode cut-out, electronic, magnetic
		*Start	Instant, programmed, rapid
		Ballast Frequency	High frequency, low frequency, other
		Average Total Lamp Arc Power	
	Deep-Dimming Fluorescent Lamp Ballasts	*Ballast Input Voltage	120, 277, other (specify)
		*Number of Lamps	
		*Lamp type	T5, T8, other (specify)
		*Dimming Type	Continuous, stepped, individual lamp control, other (specify)
		*Control Type	3-wire, 0-10 volts, digital communication, phase, other (specify)
		*Start Type	Instant start, rapid start, program start, other (specify)
		P_{100}	
		Arc Power 100	
		P_{80}	
		Arc Power 80	
		P_{50}	
		Arc Power 50	
		BLE 100	
		BLE 80	
		BLE 50	
		P_0 (standby mode power)	
		Weighted Ballast Luminous Efficacy	
		Power Factor	

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Table X Continued - Data Submittal Requirements

	Appliance	Required Information	Permissible Answers
K	Federally- regulated general service fluorescent lamps	*Type	4-foot medium bipin general service fluorescent lamp, 2-foot U-shaped general service fluorescent lamp, 8-foot slim line general service fluorescent lamp, 8-foot high output general service fluorescent lamp, 4-foot miniature bipin standard output general service fluorescent lamp, 4-foot miniature bipin high output general service fluorescent lamp
		Rated Color Rendering Index	
		Correlated Color Temperature (for lamps manufactured on or after July 15, 2012)	
		Minimum Average Lamp Efficacy (LPW)	
	Federally regulated incandescent reflector lamps	Minimum Average Lamp Efficacy	
	Federally regulated Medium Screw Base Compact Fluorescent Lamps	Lamp Power (Watts)	
		Minimum Efficacy (LPW)	
		Lamp Configuration	Bare or Covered (no reflector)
		1,000 Hour Lumen Maintenance	True, False
		Lumen Maintenance Requirements	True, False
		Rapid Cycle Stress Test	True, False
		Average Rated Lamp Life	True, False
	Federally regulated Medium Screw Base General Service Incandescent Lamps; OLEDs	Type	General Service Incandescent, LED, OLED
		Voltage Range	
		Rated Lumen Range	
		Maximum Rate Wattage	
		Minimum Rate Lifetime	
		Color Rendering Index	
		Minimum Efficacy (LPW) (required on or after January 1, 2018)	
		Modified Spectrum	True, False
		Bulb Finish (incandescent only)	Clear, frost, soft white
		ANSI-designated Bulb Shape	A15, A19, A21, A23, A25, PS25, PS30, BT14.5, BT15, CP19, TB19, CA22
	Federally regulated Candelabra Base and Intermediate Base Incandescent Lamps	Base Type	Candelabra, intermediate
		Maximum Rated Wattage	
	Medium Screw Base Modified Spectrum General Service Incandescent Lamp	Type	
		Rated Voltage	
		Rated Lumen Range	
		Maximum Rate Wattage	
		Minimum Rate Lifetime	
		Color Rendering Index	

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
	State-regulated medium screw base general service Compact Fluorescent lamps	Rated lumens	
		Rated lamp wattage	
		Average lamp efficacy	
	State-regulated small diameter directional lamps	Base Type	
		Lamp Type (examples PAR16, MR11, MR16, R)	
		Lamp Power (Watts)	
		Lamp Output (Lumens)	
		Beam Angle	
		Center Beam Candle Power (CBCP)	
		Efficacy (Lumens per watt)	
		Color Rendering Index (CRI)	
		Combined CRI + Efficacy (only applies where efficacy < 80 LPW)	
		Correlated Color Temperature	
		Rated Lifetime Test Completed	True, False
		Estimated Rated Lifetime (hours) (when “Rated Lifetime Test Completed = False)	
		Rated Lifetime (hours) (when “Rated Lifetime Test Completed = True)	

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
K	State-regulated Light Emitting Diode (LED) lamps	*Base Type	E12, E17, E26, GU24, retrofit kit
		Lamp Shape	A, B, BA, C, CA, F, G, Other
		Dimmable	True, False
		Minimum Dimming Level (%) (if Dimmable equals True)	
		Reduced Flicker Operation (if Dimmable equals True)	True, False
		Correlated Color Temperature	
		Duv	
		Rated Lifetime Test Completed	True, False
		Estimated Rated Lifetime (hours) (when "Rated Lifetime Test Completed = False)	
		Rated Lifetime (hours) (when "Rated Lifetime Test Completed = True)	
		Lifetime test environment temperature[2]	Ambient, Elevated
		Lamp Power (Watts)	
		Lumen Output (Lumens)	
		Efficacy (Lumens per watt)	
		Color Rendering Index (Ra)	
		Compliance Score	
		Power Factor	
		Standby Mode	True, False
		Standby Power (watts) (if applicable)	
		Connected network type (if applicable)	Wi-Fi, ZigBee, ANT, Bluetooth, RF, Wired, Other (specify)
		R_1	
		R_2	
		R_3	
		R_4	
		R_5	
		R_6	
		R_7	
		R_8	
		R_9 [2]	
		Meets applicable luminous intensity distribution requirements	ENERGY STAR Omnidirectional, ENERGY STAR Decorative, none.
		Audible Noise at 100% output (decibels) (if Dimmable equals True)	
		Audible Noise at 20% output (decibels) (if Dimmable equals True)	
		Start Time [2]	
		6000 hour lumen maintenance [2]	
		6000 hour survival rate [2]	

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
K	State-regulated Light Emitting Diode (LED) lamps (cont'd)	Projected time to L70 [2]	
		Dimming Control Compatibility (if Dimmable equals True)	Forward, Phase cut control, reverse phase cut, powerline carrier, digital, 0-10 VDC, other.
		NEMA SSL 7A Compatible [2] (If compatible with forward phase cut dimmer control answer "True," If not answer "False.")	True, False
L	Emergency Lighting	Light Source Type	LED, electroluminescent, fluorescent, incandescent, other (specify)
		Height of Letters "E, X, T"	
		Width of Letters "E, X, T"	
		Height of Letter "I"	
		Width of Letter "I"	
		Battery Backup	True, False
		Number of Faces	
		Input Power Watts	
		Ballast Luminous Efficiency	
		Circuit Design	Cathode cut-out, electronic, magnetic
		*Start	Instant, programmed, rapid
		Ballast Frequency	High frequency, low frequency, other
		Average Total Lamp Arc Power	
		Sign Format	Edge-lit, panel, matrix, stencil, other (specify)
		Input Power	
		Minimum Luminance of Face	
		Maximum Luminance of Face	
		Average Luminance of Face	
		Maximum to Minimum Luminance Ratio	
		Luminance Contrast	

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
L	Self-Contained Lighting Controls	Includes installation and calibration instructions	True, False
		Includes indicator lights which consume one watt or more	True, False
		Meets the requirements of a residential automatic time-switch control	True, False
		Meets the requirements of a commercial automatic time-switch control	True, False
		Meets the requirements of an astronomical time-switch control	True, False
		Meets the requirements of an motion sensor	True, False
		Meets the requirements of an automatic daylight control	True, False
		Is integrated with a photo-control	True, False
		Meets the lighting photo-control requirements	True, False
		Meets the dimmer control requirements	True, False
		Meets general occupancy sensor requirements	True, False
		Is rated for outdoor use	True, False
		Meets partial on requirements	True, False
		Meets partial off requirements	True, False
		Meets vacancy sensor requirements	True, False
		Uses ultrasonic occupancy detection	True, False
		If uses ultrasonic occupancy detection, meets ultrasound requirements	True, False, N/A
		Uses electromagnetic radiation for occupancy detection	True, False
		If uses electromagnetic radiation for occupancy detection, meets electromagnetic irradiance at 5cm from emitter (mW/cm^2)	True, False, N/A
M	Traffic Signal Modules for Vehicle control	Module Color	Green, amber, red
		Module Type	Circular, arrow, lane control-arrow, lane control-X, pedestrian, other (specify)
		Modular Size (circular, arrow only)	
		Nominal Wattage at 25° C	
		Maximum Wattage at 74° C	
	Traffic Signal Modules for Pedestrian Control	Module Type	Hand, Walking Person, walk, don't walk, countdown (Specify)
		Power Consumption at 25° C	
		Power Consumption at 74° C	

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
N	Torchieres	*Lamp Type of Upward-Facing Lamp(s)	Screw-based Incandescent, Halogen, Fluorescent Pin-based, Other (specify)
		*Lamp Type of Side Lamp(s)	Screw-based Incandescent, Halogen, Fluorescent Pin-based, Other, None (specify)
		Total Number of Lamp Sockets	
		Maximum Possible Power Demand, All Sockets (watts)	
		Method of Insuring 190 Watt Maximum Power Consumption	Current-limiting Device, Thermal Switch, Other (specify)
	Portable Luminaires	Type of Portable Luminaire	Floor, table, other (specify)
		Total Number of lamp sockets	
		Base type	Candelabra base, intermediate base, medium screw-base, pin-base; other (specify)
		Compliance method used	Dedicated fluorescent lamp socket; GU24 line-voltage socket; LED luminaire or light engine; E12, E17, or E26 screw-based socket w/ prepackaged lamp; Halogen lamp socket w/ controls
		Zero standby power (for luminaires with internal power supplies only)	True, False
		GU24 sockets rated (for use with incandescent lamps for luminaires with GU24 sockets only)	True, False
		LED Light Output (for LED luminaires only)	
		LED Efficacy (for LED luminaires only)	
		Nominal Correlated Color Temperature (for LED luminaires only)	
		Color Rendering Index (for LED luminaires only)	
		Power Factor (for LED luminaires labeled or sold for residential use only)	

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
N	Metal Halide Luminaires	*Lamp Position (orientation)	Vertical Base-Up, Vertical Base-Down, Horizontal, Universal, Other (specify)
		Lamp Rating, low (watts)	
		Lamp Rating, high (watts)	
		Outdoor Luminaire	True, False
		Compliance Option Used	≥ 90/92% efficient ballast, ≥ 88% efficient ballast with integral control (Occupancy Sensor), ≥ 88% efficient ballast with integral control (Automatic Daylight Control), ≥ 88% efficient ballast labeled for relamping with only 150-160 watt, 200-215 watt, 290-335 watt, or 336-500 watt lamps
		Ballast Type [only applies to models manufactured on or after January 1, 2006]	Probe-start electronic, probe-start magnetic, pulse-start electronic, pulse-start magnetic, other (specify)
		Minimum Ballast Efficiency (percent)	
		Lamp Exceptions[2]	Exception(s) met, no exceptions met
		Integral Control Type (for integral control compliance method only)	Occupancy sensor, Automatic daylight control
		Integral Control Method (for integral control compliance method only)	Directly into luminaire housing Packaged and sold pre-wired Integrated wireless radio controlled sensor
		Maximum relamping rated wattage on a factory-installed label (watts) (for relamping wattage compliance method only)	
		Packaged with efficient lamps (for relamping wattage compliance method only)	True, False
	Under-Cabinet Fluorescent Fixtures (Luminaires)	Lamp Length (inches)	
		Number of Lamps for which Fixture (Luminaire) is Designed	
		Ballast Efficacy Factor	
O	Dishwashers	*Type	Compact, standard
		* Number of Place Settings	
		Water Heating Dishwasher	True, False
		Truncated Normal Cycle Capable	True, False
		Soil Sensing	True, False
		Maximum Energy Use	
		Maximum Water Use	

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
P	Clothes Washers that are consumer products	*Type	Front-loading, top loading
		*Controls	Automatic, semi-automatic, other (specify)
		*Axis	Horizontal, vertical
		Suds-Saving	True, False
		Combination Washer/Dryer[1]	True, False
		Clothes Container Compartment Capacity	
		Power Consumption Per Cycle[1]	
		Water Consumption Per Cycle	
		Integrated Modified Energy Factor	
		Integrated Water Factor	
		Remaining Moisture Content	
	Commercial Clothes Washers	*Type	Front-loading, top loading
		*Controls	Automatic, semi-automatic, other (specify)
		*Axis	Horizontal, vertical
		Suds-Saving	True, False
		Combination Washer/Dryer	True, False
		Clothes Container Compartment Capacity	
		Power Consumption Per Cycle	
		Water Consumption Per Cycle	
		Modified Energy Factor	
		Water Factor (effective for models manufactured before January 1, 2018)	
		Integrated Water Factor (effective for models manufactured on or after January 1, 2018)	
		Remaining Moisture Content (required only on and after January 1, 2004)	
Q	Clothes Dryers	*Energy Source	Gas, electric
		*Drum Capacity	
		*Voltage	120, 240, other (specify)
		Combination Washer/Dryer[1]	True, False
		Venting	Vented, ventless
		Combined Energy Factor	
		Constant Burning Pilot Light (Gas models only)	True, False

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
R	Consumer Product Cooking Products	*Type	Conventional range, conventional cooking top, conventional oven, microwave-only oven, countertop convection microwave oven, built-in microwave oven, over-the-range convection microwave oven, combined cooking products, other (specify)
		*Energy Source	Gas, electric, microwave
		Electrical Supply Cord (for gas models only)	True, False
		*Constant Burning Pilot Light	True, False
		Annual Cooking Energy Consumption	
		Clock Power Consumption (for gas conventional ovens only)	
		Pilot Light Consumption (for gas conventional ovens only)	
		Annual Secondary Energy Consumption (for gas conventional ovens only)	
		Average Standby Power (data required for various microwave ovens manu-factured on or after June 17, 2016 only)	
		Off Mode Power[1]	
		On Mode Power[1]	
	Commercial Convection Ovens	Energy Input Rate	
		Idle Energy Consumption Rate	
	Commercial Hot Food Holding Cabinets	Measured Interior Volume (cu. ft.)	
		Energy Input Rate	
		Idle Energy Consumption Rate	
	Commercial Range Tops	Energy Input Rate	
		Cooking Energy Efficiency	
		Test Cooking Vessel Diameter	
S	Electric Motors	Type	NEMA Design A, NEMA Design B, NEMA Design C, IEC Design H, IEC Design N, Fire pump electric motor
		Voltage (V)	
		Speed[1] (RPM)	
		Rated Horsepower (hp)	
		Input Power (kW)	

* "Identifier" information as described in section 1602(a) of this Article.
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Table X Continued - Data Submittal Requirements

	Appliance		Required Information	Permissible Answers
S	Electric Motors (cont'd)		Air Exchange	Open, enclosed
			Number of Poles	2, 4, 6, 8
			Nominal Full Load Efficiency (%)	
T	Distribution Transformers		Distribution Transformer type (Data required for liquid-immersed and medium-voltage dry-type on or after January 1, 2010 only)	Low-voltage dry-type; liquid-immersed; medium-voltage dry-type
			*Phase	1, 3
			kVa (BIL kV for medium-voltage dry-type)	
			Rated Output Power	
			Total Loss Power	
			Efficiency (for medium-voltage models, this will be the Efficiency at 20-45 kV)	
			Efficiency 2 (medium voltage models only, Efficiency at 46-95 kV)	
			Efficiency 3 (medium voltage models only, Efficiency at ≥ 96 kV)	
U	External Power Supplies		None	
V	Televisions		Type*	CRT, Plasma, LCD, DLP, Rear Projection, Laser, OLED, LCOS
			Viewable Screen Area	
			Screen Size	
			Automatic Brightness Control	True, False
			Automatic Brightness Control enabled	True, False
			Forced Menu	True, False
			Native Vertical Resolution	
			Aspect Ratio	
			Integrated Occupancy Sensor	True, False
			L_{home}	
			L_{high}	
			Luminance Ratio	
			TV Standby-Passive Mode Power (watts)	
			On Mode Power (watts)	
			Retail On Mode Power (watts)	
			Power Factor	
	Consumer Audio and Video Equipment	Compact Audio Products	Power Usage in Audio Standby-Passive Mode for Models Without a Permanently-Illuminated Clock Display (watts)	
			Power Usage in Audio Standby-Passive Mode for Models With a Permanently-Illuminated Clock Display (watts)	
		Digital Versatile Disc Players and Digital Versatile Disc Recorders	Power Usage in Video Standby-Passive Mode (watts)	

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
V	Computer Monitors	Backlight Type	CCFL, LED, Quantum Dots, None
		EPD	True, False
		OLED	True, False
		Gaming Monitor w/ Incremental Hardware	True, False
		Gaming Monitor w/o Incremental Hardware	True, False
		KMM KVM	True, False
		Very High Performance	True, False
		Curved Monitor	True, False
		Viewable Screen area (square inches)	
		Screen size (diagonal inches)	
		Automatic Brightness Control	True, False
		Automatic Brightness Control Enabled when Shipped	True, False
		Screen Luminance (Candelas Per Square Meter)	
		Native Resolution (megapixels)	
		Power Draw in On Mode (watts)	
		Power Draw in Computer Monitor Sleep Mode (watts)	
		Power Draw in Computer Monitor Off Mode (watts)	
		Touch Screen Capability	True, False
		Touch Screen Enabled in On Mode	True, False
		Touch Screen Enabled in Computer Monitor Sleep Mode	True, False
		Touch Screen Enabled in Computer Monitor Off Mode	True, False
		Color Gamut	>32.9% of CIELUV (99% or more of defined sRGB colors), >38.4% of CIELUV (99% or more of defined Adobe RGB colors), <32.9% of CIELUV
	Medical Computer Monitors	(Other than the identifier information shown under “All Appliances” (e.g., manufacturer name, brand name, model number), no other data is required for medical computer monitors at this time.)	

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
V	Computers	Computer Type	Desktop, Notebook, Small-Scale Server, Workstation, Thin Client, Portable All-In-One, Mobile Gaming System, Mobile Workstation, High Expandability Computer, Rack-mounted Workstation
		Operating System Type	None, Limited Capability Operating System, Other
		Operating System (Provide the operating system used during testing to calculate energy consumption.)	
		Core Speed (gigahertz)	
		Number of CPU Cores	
		CPU support for 4 or more channels of memory or a 256 bit or greater memory interface	True, False
		Number of 3.5” hard-disk drives and Others (other than main storage)	
		Number of 2.5” hard-disk drives (other than main storage)	
		Number of solid-state drives (other than main storage)	
		Number of hybrid solid-state drives (other than main storage)	
		Nameplate output power of the external power supply (watts) (notebook computers and mobile gaming systems only)	
		Total Battery Capacity (watt-hours) (notebook computers, portable all-in-one, and mobile gaming systems only)	
		Discrete GPU(s) present in system	True, False
		First Discrete GPU is packaged on the same substrate as the CPU	True, False
		First Discrete GPU Frame Buffer Bandwidth (rounded to nearest gigabyte per second)	
		Total Number of Discrete GPUs	
		Integrated Display	True, False
		Color Gamut (if computer has integrated display)	>32.9% of CIELUV (99% or more of defined sRGB colors), >38.4% of CIELUV (99% or more of defined Adobe RGB colors), <32.9% of CIELUV
		Diagonal screen size (inches) (if computer has integrated display)	
		Viewable screen area (square inches) (if computer has integrated display)	
		Resolution (megapixels) (if computer has integrated display)	

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
V	Computers (cont'd.)	Enhanced Performance (if computer has integrated display)	True, False
		Length of time of user inactivity before computer entering sleep (minutes). Do not report a number if the model does not enter sleep.	
		Length of time of user inactivity before placing display into sleep (minutes). Do not report a number if the model does not enter sleep.	
		Energy Efficient Ethernet Capability	True, False
		Total Number of Add-in Cards	
		Total Number of Video Surveillance Cards	
		Total Number of Wired Ethernet or Fiber Cards with a transmit rate of 10 GB/s or greater	
		System memory bandwidth (gigabytes/second)	
		8 gigabytes or more of system memory with a bandwidth of 632 GB/s or more	True, False
		8 gigabytes or more of system memory with a bandwidth of 432 GB/s or more	True, False
		4 gigabytes or more of system memory with a bandwidth of 146 GB/s or more	True, False
		4 gigabytes or more of system memory with a bandwidth of 134 GB/s or more	True, False
		Total Number of System Memory Channels Used	
		First channel system memory type	DDR, GDDR, HBM, Other
		First channel system memory bandwidth (GB/s)	
		First channel system memory (GB)	
		Second channel system memory type	DDR, GDDR, HBM, Other, None
		Second channel system memory bandwidth (GB/s)	
		Second channel system memory (GB)	
		Third channel system memory type	DDR, GDDR, HBM, Other, None
		Third channel system memory bandwidth (GB/s)	
		Third channel system memory (GB)	
		Fourth channel system memory type	DDR, GDDR, HBM, Other, None
		Fourth channel system memory bandwidth (GB/s)	
		Fourth channel system memory (GB)	
		Fifth channel system memory type	DDR, GDDR, HBM, Other, None
		Fifth channel system memory bandwidth (GB/s)	
		Fifth channel system memory (GB)	
		Sixth channel system memory type	DDR, GDDR, HBM, Other, None
		Sixth channel system memory bandwidth (GB/s)	
		Sixth channel system memory (GB)	
		Seventh channel system memory type	DDR, GDDR, HBM, Other, None

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
V	Computers (cont'd.)	Seventh channel system memory bandwidth (GB/s)	
		Seventh channel system memory (GB)	
		Eighth channel system memory type	DDR, GDDR, HBM, Other, None
		Eighth channel system memory bandwidth (GB/s)	
		Eighth channel system memory (GB)	
		Computer sleep mode type	ACPI S3, Other
		Computer off mode power (watts)	
		Computer sleep mode power (watts)	
		Long-idle power (watts)	
		Short-idle power (watts)	
		Expandability Score	
		Meets full capability mode weighting criteria	True, False
		Meets remote wake mode weighting criteria	True, False
		Total Annual Energy Consumption (kilowatt hours per year)	
		Power Supply Meets Table V-9 or Level VI	True, False
		Small Volume Manufacturer	True, False
		Motherboard model number	
		Power supply type	Internal, External
		Internal power supply size (watts)	
		Power factor at full load of the computer's power supply that is not a federally regulated external power supply	
		Median power factor during short-idle of the computer's power supply that is not a federally regulated external power supply	
		Power supply model number	

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
W	Small Battery Charger Systems	*Consumer Product Model Number	End use product model number (specify)
		Product Type	
		24-hour charge and maintenance energy	
		Battery maintenance mode power	
		No battery mode power	
		Battery capacity of tested battery (if more than 1 charger port report the total of all battery capacities connected during test)	
		Inductive charger systems	True, False
		Number of charger ports	
		Compatible battery chemistries	
		Battery backup or uninterruptible power supply	True, False
		Á la carte charger	True, False
		USB charger system	True, False
		Location of marking or labeling	Packaging, Product
		Battery Test Procedure Used	
		Consumer Product (T/F)	True, False
	Large Battery Charger Systems	Product Type	
		Charge return factor 100	
		Charge return factor 80	
		Charge return factor 40	
		Power conversion efficiency	
		Power factor	
		Maintenance mode power	
		No battery mode power	
		Battery capacity of tested battery	
		Compatible battery chemistries	
		Location of marking or labeling	Packaging, Product

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Table X Continued - Data Submittal Requirements

	Appliance	*Required Information*	*Permissible Answers*
W	Federally Regulated Battery Chargers (manufactured on or after June 13, 2018)	Product Group Code	1, 2, 3, 4, 5, 6, 7
		Nameplate Battery Voltage of Test Battery in Volts (V)	
		Nameplate Battery Charge Capacity of Test Battery in Ampere-Hours (Ah)	
		Nameplate Battery Energy Capacity of Test Battery in Watt-Hours (Wh)	
		Maintenance Mode Power in Watts (Pm)	
		Standby Mode Power in Watts (Psb)	
		Off Mode Power in Watts (Poff)	
		Battery Discharge Energy in Watt-Hours (Ebatt)	
		24-Hour Energy Consumption in Watt-Hours (E24)	
		Duration of the Charge and Maintenance Mode Test in Hours (Tcd)	
		Unit Energy Consumption (UEC) (kWh/yr)	
		Manufacturer of Test Battery	
		Model of Test Battery	
		Manufacturer of External Power Supply (If Applicable)	
		Model of External Power Supply (If Applicable)	

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4) Declaration.

(A) Each statement shall include a declaration, executed under penalty of perjury of the laws of California, that

1. all the information provided in the statement is true, complete, accurate, and in compliance with all applicable provisions of this Article;

2. the requirements of section 1606(g) of this Article have been and are being complied with;

3. for appliances for which there is an energy efficiency, energy consumption, energy design, water efficiency, water consumption, or water design standard in section 1605.1, 1605.2, or 1605.3 of this Article, that the appliance complies with the applicable standards;

4. the appliance was tested under the applicable test method specified in section 1604 of this Article, and, for the following appliances, was tested as follows:

a. for other self-contained commercial refrigerators, refrigerator-freezers, and freezers with doors that are pass-through and roll-through refrigerators and freezers, that the back (loading) doors remained closed throughout the test;

b. for all refrigerators, refrigerator-freezers, and freezers were tested using alternating current electricity only;

c. for all split system central air conditioners and compressor-containing units, these models were tested with the combination of compressor-containing and non-compressor containing unit specified in 10 C.F.R. section 429.16(b)(2);

d. for all gas-fired air conditioners and gas-fired heat pumps, all appliances were tested to ANSI Z21.40.4-1996 as modified by CEC, Efficiency Calculation method for Gas-Fired Heat Pumps as a New Compliance Option (1996);

e. for evaporative coolers, all appliances were tested to the applicable test method referenced in Table D-3 with the modifications appearing in Table D-3;

f. for whole house fans, all appliances were tested to HVI-916, and if equipped with louvers were tested with manufacturer-provided louvers in place;

g. for battery charger systems for which certification is based on testing of representative battery charger system models, the models tested as representative are those known or expected to have the poorest performance characteristics such that the data generated meets the requirements of section 1606(a)(3)(D) of this Article for all associated models; and

h. for kitchen faucets that utilize an optional and temporary higher flow rate than 1.8 gpm, the higher flow rate has been tested utilizing the test procedure identified for kitchen faucets in section 1604(h) at 60 psi and verified to have a flow rate less than or equal to 2.2 gpm.

Exceptions to section 1606(a)(4)(A)4 of this Article: Section 1606(a)(4)(A)4 of this Article is not applicable to the following types of appliances that have no test methods found in section1604 of this Article:

(1) federally regulated organic light emitting diode (OLED) lamps,

(2) federally regulated candelabra base incandescent lamps,

(3) federally regulated intermediate base incandescent lamps,

(4) traffic signal lamps,

(5) torchieres,

(6) portable luminaires showing compliance with sections 1605.3(n)(3)(A)1., 1605.3(n)(3)(A)2., or 1605.3(n)(3)(A)5. of this Article, and

(7) self-contained lighting controls.

5. all units of the appliance are marked as required by section 1607 of this Article, and, for the following appliances, are marked as follows:

a. for all air conditioners, heat pumps, furnaces, boilers, and water heaters that are not subject to NAECA and that comply with the October 29, 2001 provisions in Tables 6.2.1 A through G of ASHRAE/IES Standard 90.1-1999, they are marked, permanently and legibly on an accessible and conspicuous place on the unit, with a statement that the equipment complies with the 2001 requirements of ASHRAE Standard 90.1;

b. for all other air conditioners, heat pumps, furnaces, boilers, and water heaters that are not subject to NAECA and that comply with the October 29, 1999 provisions (but not with the October 29, 2001 provisions) in Tables 6.2.1 A through G shall be marked, permanently and legibly on an accessible and conspicuous place on the unit, with a statement that the equipment complies with the 1999 requirements of ASHRAE Standard 90.1;

c. for all distribution transformers, each appliance has a label or nameplate which states “DOE Compliant” or equivalent;

d. for all illuminated exit signs meeting the criteria of section 1605.1(l) of this Article, each appliance is marked by the manufacturer with a block E inside a circle; the mark commonly referred to as “Circle E.” The size of the mark shall be commensurate with other markings on the sign, but not smaller than 1/4”;

e. for all torchieres, each unit of torchieres and each package containing a torchiere is marked, permanently and legibly on an accessible and conspicuous place on the unit, in characters no less than 1/8” on the inner surface of the reflector bowl of the torchiere, and 1/4” on the packaging, “LAMPS MUST TOTAL NO MORE THAN 190 WATTS-TORCHIERE IS NON-COMPLIANT IF IT IS ABLE TO DRAW MORE THAN 190 WATTS.”;

f. for commercial pre-rinse spray valves, each unit is marked, permanently and legibly on an accessible and conspicuous place on the unit, in characters no less than 1/8”, the flow rate of the unit, in gallons-per minute (gpm) at 60 psi;

g. for residential pool pumps, each pool pump is marked permanently and legibly on an accessible and conspicuous place on the unit, in characters no less than 1/4”, with the nameplate HP of the pump and, if manufactured on or after January 1, 2010, with the statement, “This pump must be installed with a two-, multi-, or variable-speed pump motor controller”;

h. for residential pool pump motors, each pool pump motor is marked permanently and legibly on an accessible and conspicuous place on the unit, in characters no less than 1/4”, with the pool pump motor capacity of the motor.

(B) If the manufacturer is a corporation, partnership, or other business entity, the declaration shall be electronically signed by an individual authorized to make the declaration and file the statement on behalf of the business entity, and the declaration shall contain an affirmation that the individual signing is so authorized.

(C) The declaration shall be submitted electronically through the MAEDbS and maintained by the Executive Director for a period of at least ten years, pursuant to the requirements in section 1606(i) of this Article.

(b) Review of Statements by the Executive Director.

In this subsection, “manufacturer” also includes a third party filing a statement under section 1606(f) of this Article.

(1) Determination. The Executive Director shall determine whether a statement is complete, accurate, and in compliance with all applicable provisions of this Article, and whether the appliance for which the statement was submitted complies with all applicable standards in sections 1605.1, 1605.2, and 1605.3 of this Article.

(2) Informing Manufacturer and Third Party of Determination.

(A) The Executive Director shall inform the manufacturer's MAEDbS-designated contact person or the third party's MAEDbS-designated contact person, as described in section 1606(f) of this Article, of the determination within 30 calendar days after receipt by the Executive Director.

(B) The Executive Director's determination shall be sent electronically through the MAEDbS to the manufacturer's MAEDbS-designated contact person.

(3) Nature of Determination.

(A) Statement is Incomplete. If the Executive Director determines that a statement is not complete, or that the statement does not contain enough information to determine whether it is accurate or whether the appliance complies with an applicable standard, the Executive Director shall return the statement through the MAEDbS to the manufacturer's MAEDbS-designated contact person with an explanation of its defects and a request for any necessary additional information. The manufacturer shall refile the statement through the MAEDbS with all information requested by the Executive Director. The Executive Director shall review the refiled statement according to the time limits in section 1606(b)(2) of this Article.

(B) Statement is Inaccurate or Appliance Does Not Comply. If the Executive Director determines that the statement is inaccurate or that the appliance does not comply with an applicable standard, the Executive Director shall reject the statement and return it through the MAEDbS to the manufacturer's MAEDbS-designated contact person with an explanation of its defects. The manufacturer may submit a revised statement through the MAEDbS for the appliance at any time.

(C) Statement is Complete and Accurate and Appliance Complies. If the Executive Director determines that the statement is complete and accurate and that the appliance complies with all applicable standards, the Executive Director shall immediately include the appliance in the MAEDbS and shall so inform the manufacturer's MAEDbS-designated contact person. (section 1608(a) of this Article states that no appliance within the scope of these regulations may be sold or offered for sale in California unless the appliance is in the MAEDbS.)

(c) Modernized Appliance Efficiency Database of Appliance Models.

(1) Creation of the MAEDbS. The Executive Director shall maintain a database known as the Modernized Appliance Efficiency Database (MAEDbS). The MAEDbS shall consist of two parts:

(A) "Approved MAEDbS." The Approved MAEDbS shall contain, at least, information on all appliances that are currently in production, for which complete and accurate statements have been received pursuant to section 1606(a) of this Article, and that have not been removed from the MAEDbS pursuant to sections 1606(c)(3), 1606(d)-(e), or 1608(c)-(e) of this Article.

If basic models are certified using an alternate test procedure established pursuant to section 1603(c)(1) of this Article or for which the Executive Director has made a specification under either section 1603(c)(2)(A) or section 1603(c)(2)(B) of this Article, the Approved MAEDbS shall contain a second section which shall contain only those basic models for which certification to an applicable alternate test procedure is made.

(B) “Archived MAEDbS.” The Archived MAEDbS shall contain, at least, information on all appliances that:

1. are no longer in production, for which complete and accurate statements have been received pursuant to section 1606(a) of this Article or

2. have been removed from the Approved MAEDbS pursuant to sections 1606(e)(2) or 1608(c) of this Article.

(2) Status of the MAEDbS. The MAEDbS is the directory published by the Energy Commission within the meaning of Title 24, California Code of Regulations, part 6, Subchapter 1, Section 100(h). The MAEDbS in existence on the effective date of this paragraph is the directory referred to in this paragraph, until that existing MAEDbS is modified by the Executive Director pursuant to this Article.

(3) Confirmation of the MAEDbS Listings. The Executive Director may, by electronically writing (either via e-mail or directly through the MAEDbS) to the most recent electronic address filed pursuant to section 1606(a)(2)(B) of this Article, request each manufacturer of an appliance listed in the MAEDbS to confirm the validity, or to correct in compliance with this Article, all of the information in each of its MAEDbS listings. If within 30 calendar days of the electronic mailing there is no such reply, the appliance shall be removed from the Approved MAEDbS and moved into the Archived MAEDbS, and it may be presumed that the appliance is no longer in production.

(A) If the lack of compliance with any requirements of this Article is strictly limited to non-compliance with standards adopted since the most recent filing by the manufacturer, after initially notifying the manufacturer under the requirements found in section 1606(c)(3) of this Article, all affected models will be moved from the Approved MAEDbS to the Archived MAEDbS without providing any additional electronic notice to the manufacturer. The effective date for moving such affected models to the Archived MAEDbS will be the effective date of the new standard.

(d) Assessment of Completeness, Accuracy, and Compliance of Manufacturer Statements.

(1) Notwithstanding any other provision of these regulations, the Executive Director may at any time challenge the completeness, accuracy, and compliance with the requirements of this Article, of any statement or confirmation filed pursuant to this Section. If the statement is incomplete or inaccurate, or if the Executive Director determines that the statement otherwise fails to comply with any of the requirements of this Article then he or she shall, ten working days after providing electronic notice via e-mail or directly through the MAEDbS to the person designated in section 1606(a)(2)(B) of this Article, remove the appliance from the MAEDbS described in section 1606(c) of this Article.

(A) If the lack of compliance with any requirements of this Article is strictly limited to non-compliance with standards currently in effect, but not in effect when the statement was filed, all affected models will be moved from the Approved MAEDbS to the Archived MAEDbS without providing any advance electronic notice to the manufacturer. The effective date for moving such affected models to the Archived MAEDbS will be the effective date of the new standard.

(e) Modified and Discontinued Appliances.

(1) If any of the characteristics listed in Table X are changed, the manufacturer shall file a statement containing the identifiers and all the information for the appliance, including all the characteristics that have been changed for the appliance. Upon receipt of such a statement, the Executive Director shall review the statement under section 1606(b) of this Article. If the statement is complete, accurate, in compliance with all applicable standards, the Executive Director shall modify the MAEDbS accordingly.

(A) If no data currently certified for a specific appliance has changed, no notification of modification is necessary, nor will it be accepted in MAEDbS.

(2) After any appliance has ceased being sold or offered for sale in California the manufacturer shall file a statement so stating and only containing the identifiers shown in Table X for the appliance. Upon receipt of such a statement, the Executive Director shall review the statement under section 1606(b) of this Article. If the statement is complete, accurate, and in compliance with all applicable provisions of this Article, the Executive Director shall move the appliance from the Approved MAEDbS to the Archived MAEDbS.

(A) Section 1606(e)(2) of this Article applies either when:

1. a manufacturer or third-party certifier provides information about deleting a model, or

2. Energy Commission Appliance Efficiency Program staff independent of any manufacturer or third-party certifier determine that an appliance has ceased being sold or offered for sale in California.

(3) If a manufacturer of a computer fails to obtain two ISV certifications within 60 days of certifying a computer model or loses ISV certifications such that the computer model no longer meets the definition of a workstation or mobile workstation, that manufacturer shall either file to remove the appliance from the database as described in Section 1606(e)(2) or shall modify the model certification as described in Section 1606(e)(1) to comply as a different computer type.

(f) Filing by Third Parties.

(1) A third party may file on behalf of a manufacturer the information required by sections 1606(a)(2), 1606(a)(3), 1606(a)(4), 1606(c)(3), or 1606(e) of this Article if:

(A) before or with its first submittal, the third party submits to the Executive Director through the MAEDbS a declaration, under penalty of perjury, that:

1. the third party has read and understood all the provisions of this Article, of federal law, and of all other documents applicable to each appliance category in sections 1601(a)-(w) of this Article for which the third party will file information, including but not limited to updated test procedures, standards and filing requirements; and

2. the third party is financially and technically capable of complying with the applicable provisions of this Article;

(B) before or with the first submittal made by the third party, the manufacturer submits to the third party and Executive Director through the MAEDbS:

1. a declaration under penalty of perjury,

a. that all information provided to the third party by the manufacturer is true, complete, accurate, and in compliance with all applicable provisions of this Article,

b. that no unmodified model data is being submitted,

c. that on behalf of the manufacturer, the third party is authorized to file information in compliance with the provisions of this Article, and

d. for appliances for which there is an energy efficiency, energy consumption, energy design, water consumption, water efficiency, or water design standard in section 1605.1, 1605.2, or 1605.3 of this Article, that the model complies with the current applicable standards.

(C) the third party submits to the Executive Director through the MAEDbS, in compliance with the requirements of this Article applicable to manufacturer-filed submittals:

1. the information that is required; and

2. a declaration under penalty of perjury that:

a. to the best of the third party's knowledge and belief, the information submitted to the Energy Commission is the same as the information submitted by the manufacturer to the third party;

b. the information is true, complete, accurate, and in compliance with all applicable provisions of this Article; and,

c. for appliances for which there is an energy efficiency, energy design, water consumption, or water efficiency standard in section 1605. 1, 1605.2, or 1605.3 of this Article, the appliance complies with the applicable standards.

(D) the third party provides, upon ten days' written notice from the Executive Director, all information provided by the manufacturer.

(2) Whether a manufacturer files information required by this Section by itself or via a third party, the manufacturer remains responsible for the truth, accuracy, completeness, and timeliness of all required filings.

(3) Upon a finding of noncompliance with an applicable provision of this Article, the Executive Director may suspend a third party from making filings, allow continued filings under specific conditions or remove affected appliances from the MAEDbS.

(4) If the Executive Director has suspended or revoked the approval of a trade association directory under section 1606(h)(2)(B) of this Article, that trade association is prohibited from being approved as a third party until it has obtained re-approval under section 1606(h)(2)(B) of this Article.

(5) The provisions of this Article are applicable to all submittals and filings, whether made by a manufacturer directly or by a third party on behalf of a manufacturer.

(g) Electronic Filing.

(1) Unless otherwise stated in this Article, the statements and other submittals required or allowed by this Article shall be filed electronically to the MAEDbS by all third parties acting under section 1606(f) of this Article so that the electronic filing to the MAEDbS uses a format and characteristics, including without limitation appropriate formatting, that are specified by the Executive Director, and includes a declaration that complies with section 1606(a)(4) of this Article.

(2) Any electronic filing to the MAEDbS constitutes a representation by the person making the filing that:

(A) all applicable requirements of this Article have been met;

(B) the person will electronically acknowledge receipt through the MAEDbS of all electronic communications concerning the filing from the Executive Director through the MAEDbS to the person;

(C) all electronic communications concerning the filing from the Executive Director through the MAEDbS to the person shall be deemed received by the person upon notification to the Executive Director, by the computer from which the Executive Director communication has been sent, that the communication has been sent; and

(D) all electronic communications concerning the filing from the person to the Executive Director shall be deemed received by the Executive Director only upon actual receipt.

(3) At any time the Executive Director may forbid electronic filings by any person, or generically, and may remove affected appliance models from the MAEDbS, if he or she finds that an applicable requirement of this Article is not being met.

(h) Trade Association Directories.

(1) A paper or electronic directory, or a part thereof, published by an appliance trade association may be used for any purpose that the MAEDbS established pursuant to section 1606(c) of this Article is used for, if the Executive Director approves the directory, or part thereof, by determining and confirming that:

(A) the trade association is an approved industry certification program within the MAEDbS and meets all requirements shown in section 1603(b) for each appliance listed in the directory;

(B) all of the applicable requirements of section 1606(f) of this Article for third party submittals are met for the directory;

(C) the entity submits to the Executive Director:

1. all of the information in the directory, within three working days of the approval of the directory;

2. all of the information in the directory that has changed since the previous submittal, at the end of each month during which there has been any change;

3. a declaration, signed under penalty of perjury of the laws of California, that to the best of the trade association's knowledge and belief:

a. the information in the directory is the same as the information submitted by manufacturers to the trade association;

b. the information is true, complete, accurate, and in compliance with all applicable provisions of this Article;

c. each appliance complies with the applicable standards in section 1605.1 of this Article; and

d. for any appliance for which there is a standard in section 1605.3 of this Article, that the appliance meets all applicable standards unless the directory states, in a format approved by the Executive Director (including without limitation font, type size, and placement in the directory), that it is illegal in California to sell the appliance or offer it for sale.

(D) for each appliance that is listed in a trade association directory, the directory includes all of the following information, where applicable to the appliance:

1. manufacturer

2. brand

3. model number as it appears on the appliance

4. type

5. fuel type

6. voltage

7. electrical phase

8. capacity or other size measurement

9. input

10. output

11. standby consumption, loss, or other similar measurement; and energy efficiency,

12. energy consumption, water efficiency, or water consumption;

(E) the directory contains no appliance in the following categories:

1. an appliance that fails to meet an applicable energy efficiency, energy consumption, energy design, water efficiency, or water consumption standard established in or pursuant to NAECA or EPAct;

2. an appliance for which the manufacturer has stated or certified that the appliance meets an energy efficiency, energy consumption, energy design, water efficiency, or water consumption standard not applicable to it; or

3. an appliance that does not, or an appliance whose manufacturer does not, meet an applicable requirement of this Article, unless the directory states, in a format approved by the Executive Director (including without limitation font, type size, and placement in the directory), that it is illegal in California to sell the appliance or offer it for sale; and

(F) each paper or electronic directory contains the following statement, in at least 20 point bolded type and on the front cover or first page, or in another format and with other characteristics as specified by the Executive Director:

"This directory [insert parts if appropriate] has been approved by the California Energy Commission (Energy Commission) for determining compliance with its appliance efficiency regulations (Title 20, California Code of Regulations, sections 1601-1609) and its building standards (Title 24, California Code of Regulations, part 6). UNLESS INDICATED OTHERWISE, any appliance listed in this directory [insert parts if appropriate] may be sold, offered for sale, or installed in new construction in California. For appliances manufactured by manufacturers participating in this directory, but who have not given authorization for data submittal to the Energy Commission, this directory cannot be used for determining compliance. For information about such appliances, appliances that are beyond the scope of this directory, or appliances produced by manufacturers who do not participate in this directory, please contact the Appliance Efficiency Program at: <appliances@energy.ca.gov>. Manufacturers not granting authorization for data submittal to the Energy Commission as of the publication date of this directory include [list all affected manufacturers]"; and

(G) at the end of each calendar quarter, the trade association provides, at no cost to recipients, an electronic copy of the current directory or supplement or part thereof to the Executive Director and to all California building officials as specified by the Executive Director, and provides to the Executive Director a list of the building officials to whom the directory or supplement was sent.

(2) If the Executive Director at any time determines that an approved trade association directory does not comply with an applicable provision of this Article, or that any information in a trade association directory is substantially incomplete, inaccurate, or not in compliance with an applicable provision of this Article, then:

(A) upon written notice from the Executive Director the trade association shall immediately indicate in the directory, in a format approved by the Executive Director (including without limitation font, type size, and placement in the directory), that it is illegal in California to sell the appliance. In addition, the Executive Director shall remove the appliance from the Energy Commission's MAEDbS established under section 1606(c) of this Article or indicate in the MAEDbS that the appliance cannot legally be sold or offered for sale in California. The appliance shall be removed from, or indicated in, the Energy Commission's MAEDbS and the trade association directory, for at least sixty days, until the end of a proceeding held to consider the matter pursuant to Sections 11445.10-11445.60 of the California Government Code (or, at the third party or affected manufacturer's option, pursuant to Sections 11425.10-11425.60 of the California Government Code); and

(B) the Executive Director may suspend or revoke the approval of the trade association directory; if approval is revoked, the trade association may not seek re-approval for two years after the revocation.

(3) If the Executive Director takes action under sections 1606(b)(3)(A) or (B), or 1608(c), (d), or (e) of this Article, he or she shall direct that all trade association directories be modified accordingly.

(4) There may be more than one third-party directory for the same appliance.

(i) Retention of Records.

Manufacturers, and third parties or trade associations acting under sections 1606(a), 1606(f), and 1606(g) of this Article, shall retain all data, forms, information, and all other records required by this Article concerning each appliance:

(1) for at least 2 years after the manufacturer informs the Executive Director, in writing, of the cessation of production of the appliance; and

(2) in a manner allowing ready access by the Executive Director on request.

The Executive Director shall retain all data, forms, information, and all other records required by this Article concerning each appliance for at least 10 years after the record is initially filed or reconfirmed.

(j) Small Volume Manufacturers.

(1) Entities seeking to be designated as a “small volume manufacturer” for purposes of Section 1605.3(v)(7) shall certify and retain records to demonstrate the following information:

(A) Gross revenues from the 12-month period preceding the certification from all of the entity's operations, including operations of any other person or business entity that controls, is controlled by, or is under common control of the entity, is $2,000,000 or less; and

(B) The manufacturer assembles and sells the computers at the same location.

(2) If a small volume manufacturer no longer meets one of the requirements to be a small volume manufacturer, the entity shall file to remove itself from the database as a small volume manufacturer within 90 days.

The following documents are incorporated by reference in section 1606.

Number	*Title*
	CALIFORNIA ENERGY COMMISSION
California Title 24, part 6, Joint Appendix 8 JA-8 -- 2015	Qualification Requirements for High Efficacy Light Sources
Copies available from:	California Energy Commission Energy Hotline 1516 Ninth Street, MS-25 Sacramento, California 95814 Phone: (916) 654-5106 FAX: (916) 654-4304
	FEDERAL STATUTES AND REGULATIONS
C.F.R., Title 10, section 430.23(ee) (Appendix BB to subpart B of part 430) (Jan. 1, 2017)	Uniform Test Method for Measuring the Input Power, Lumen Output, Lamp Efficacy, Correlated Color Temperature (CCT), Color Rendering Index (CRI), Power Factor, Time to Failure, and Standby Mode Power of Integrated Light-Emitting Diode (LED) Lamps
Copies available from:	Superintendent of Documents U.S. Government Printing Office Washington, DC 20402 http://www.gpo.gov
	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION (NEMA)
NEMA SSL 7A (2013)	Qualification Requirements for High Efficacy Light Sources
Copies available from:	National Electric Manufacturers Association 1300 N. 17th Street, Suite 1847 Rosslyn, VA 22209 www.nema.org Phone: (703) 841-3200 Fax: (703) 841-3300

Note: Authority cited: Sections 25213, 25218(e), 25402(a)-25402(c) and 25960, Public Resources Code; and sections 16, 26 and 30, Governor's Exec. Order No. B-29-15 (April 1, 2015). Reference: Sections 25216.5(d), 25402(a)-25402(c), 25402.5.4 and 25960, Public Resources Code; and section 16, Governor's Exec. Order No. B-29-15 (April 1, 2015)

§ 1607. Marking of Appliances.

(a) Scope of Section 1607.

Every unit of every appliance within the scope of section 1601 of this Article shall comply with the applicable provisions of this section. The effective dates of this section shall be the same as the effective dates shown in section 1605.1, 1605.2 or 1605.3 of this Article for appliances for which there is an energy efficiency, energy consumption, energy design, water efficiency, water consumption, or water design standard in section 1605.1, 1605.2, or 1605.3 of this Article. For appliances with no energy efficiency, energy consumption, energy design, water efficiency, water consumption, or water design standard in section 1605.1, 1605.2, or 1605.3 of this Article, the effective date of this section shall be January 1, 2006.

(b) Name, Model Number, and Date.

Except as provided in section 1607(c) of this Article, the following information shall be permanently, legibly, and conspicuously displayed on an accessible place on each unit;

(1) manufacturer's name or brand name or trademark (which shall be either the name, brand, or trademark of the listed manufacturer specified pursuant to section 1606(a)(2)(A) of this Article;

(2) model number; and

(3) date of manufacture, indicating (i) year and (ii) month or smaller (e.g. week) increment. If the date is in a code that is not readily understandable to the layperson, the manufacturer shall immediately, on request, provide the code to the Energy Commission.

(c) Exceptions to Section 1607(b).

(1) For plumbing fixtures and plumbing fittings, the information required by section 1607(b) of this Article shall be permanently, legibly, and conspicuously displayed on an accessible place on each unit or on the unit's packaging.

(2) For lamps, the information required by section 1607(b) of this Article shall be permanently, legibly, and conspicuously displayed on an accessible place on each unit, on the unit's packaging, or, where the unit is contained in a group of several units in a single package, on the packaging of the group.

(3) For fluorescent lamp ballasts, the date of manufacture information required by section 1607(b)(3) of this Article shall indicate (i) year and (ii) three-month or smaller increment. If the date is in a code that is not readily understandable to the layperson, the manufacturer shall immediately, on request, provide the code to the Energy Commission.

(d) Energy Performance Information.

(1) Federally Regulated Consumer Products.

The marking required by 16 C.F.R. part 305 shall be displayed as required for all federally-regulated consumer products of the following classes:

Refrigerators
Refrigerator-freezers
Freezers
Central air conditioners
Heat pumps
Dishwashers
Water heaters
Room air conditioners
Warm air furnaces
Boilers
Pool heaters
Clothes washers
Fluorescent lamp ballasts
Showerheads
Faucets
Water closets
Urinals
General service incandescent reflector lamps
General service fluorescent lamps
General service incandescent (other than reflector) lamps
Medium-base compact fluorescent lamps
Metal halide lamp fixtures
Televisions
Ceiling fans.

(2) Federally Regulated Commercial and Industrial Equipment.

Unless otherwise specified in Table Y, each unit of an appliance listed in Table Y that is federally regulated commercial and industrial equipment shall be marked, permanently and legibly on an accessible and conspicuous place on the unit, with the applicable energy performance information shown in Table Y, and such information shall also be included on all printed material that is displayed or distributed at the point of sale.

Table Y
Requirements for Marking of Federally- Regulated Commercial and Industrial Equipment

Class	***Energy Performance Information***
Split system central air conditioners (on printed material only)	Cooling capacity, SEER, EER
Single package central air conditioners	Cooling capacity, SEER, EER
Split system heat pumps (on printed material only)	Cooling capacity, heating capacity, SEER, EER, HSPF, COP
Single package heat pumps	Cooling capacity, heating capacity, SEER, EER, HSPF, COP
Package terminal air conditioners	Cooling capacity, EER
Package terminal heat pumps	Cooling capacity, heating capacity, EER, COP
Warm air furnaces	Input rating, thermal efficiency
Packaged boilers	Input rating, thermal efficiency, combustion efficiency (combustion efficiency marking requirement applies only to boilers with input ratings greater than 2,500,000 Btu/h.)
Water heaters	Input rating, rated storage volume, measured storage volume, thermal efficiency, standby loss (%/hr), standby loss (Btu/hr)
Hot water supply boilers	Rated input, rated storage volume, measured storage volume, thermal efficiency, standby loss

(3) Air Conditioners, Heat Pumps, Furnaces, Boilers, and Water Heaters. Each unit of air conditioners, heat pumps, furnaces, boilers, and water heaters that are not subject to NAECA and that comply with the provisions in Tables 6.8.1 A through F of ANSI/ASHRAE/IES Standard 90.1-2007 shall be marked, permanently and legibly on an accessible and conspicuous place on the unit, with a statement that the equipment complies with the requirements of ASHRAE Standard 90.1.

(4) Distribution Transformers. Each unit of distribution transformers shall have a label or nameplate which states “DOE Compliant” or equivalent.

(5) Illuminated Exit Signs. Each unit of illuminated exit signs meeting the criteria of section 1605.1(l) of this Article that are sold in California (subject to the limitations of section 1601 of this Article) shall be marked by the manufacturer with a block E inside a circle; the mark commonly referred to as “Circle E.” The size of the mark shall be commensurate with other markings on the sign, but not smaller than 1/4 inch. Signs not meeting section 1605.1(l) of this Article shall not be so marked.

(6) Luminaires. Each unit of torchieres and each package containing a torchiere shall be marked, permanently and legibly on an accessible and conspicuous place on the unit, in characters no less than 1/8 inch on the inner surface of the reflector bowl of the torchiere, and 1/4” on the packaging, “LAMPS MUST TOTAL NO MORE THAN 190 WATTS - TORCHIERE IS NON-COMPLIANT IF IT IS ABLE TO DRAW MORE THAN 190 WATTS.”

(7) Commercial Pre-Rinse Spray Valves. Each unit of commercial pre-rinse spray valve shall be marked, permanently and legibly on an accessible and conspicuous place on the unit, in characters no less than 1/8 inch, the flow rate of the unit, in gallons-per minute (gpm) at 60 psi.

(8) External Power Supplies.

(A) Federally Regulated External Power Supplies. Any external power supply subject to the standards in section 1605.1(u)(1) of this Article shall be clearly and permanently marked in accordance with 10 C.F.R. section 430.32(w)(4).

(B) State-Regulated External Power Supplies. Any state-regulated external power supply complying with the requirements of section 1605.3(u) shall be clearly and permanently marked in accordance with the International Efficiency Marking Protocol for External Power Supplies, Version 3.0, September 2013.

(9) Residential Pool Pumps.

(A) Each residential pool pump shall be marked, permanently and legibly on an accessible and conspicuous place on the unit, in characters no less than 1/4", the nameplate HP of the pump.

(B) Each residential pool pump motor shall be marked, permanently and legibly on an accessible and conspicuous place on the unit, in characters no less than 1/4", the pool pump motor capacity of the motor.

(C) Two-, multi-, or variable-speed residential pool pumps certified under section 1606 of this Article on or after January 1, 2010 shall be marked, permanently and legibly on an accessible and conspicuous place on the unit, in characters no less than 1/4", "This pump must be installed with a two-, multi-, or variable-speed pump motor controller."

(10) Battery Charger Systems. Each state-regulated battery charger system shall be marked with a "BC" inside a circle. The marking shall be legible and permanently affixed to:

(A) the product nameplate that houses the battery charging terminals or;

(B) the retail packaging and, if included, the cover page of the instructions.

(11) Emergency Lighting and Self-Contained Lighting Controls. All occupant sensing devices which utilize microwave radiation for detection of occupants shall be marked with an approved Federal Communications Commission identifier. In addition, such devices must have permanently affixed installation instructions recommending that the device be installed at least 12 inches from any area normally used by room occupants.

(12) Air Filters. Each unit of air filters manufactured on or after April 1, 2019 shall be marked, permanently and legibly, on an accessible and conspicuous place on the edge of the filter itself or on the pleats, in characters of font size 12, with the information specified in either section (A) or (B) below as applicable to the air filter model:

(A) Air filters for which the reported information is determined in accordance with the AHRI standard 680-2009 shall be marked with the following information:

1. Particle size efficiency (PSE) of the unit in three particle size ranges: 0.3-1.0, 1.0-3.0, 3.0-10 micrometers (μm).

2. Initial resistance for the range of airflow rates as published by the manufacturer, including the maximum rated airflow rate. The selected airflow rates shall be in multiples of 400

cfm. If the maximum rated airflow rate is not a multiple of 400 cfm, then report initial resistance at multiples of 400 cfm, and any fraction thereof, to include the maximum rated airflow rate as described in subsections a, b, c, d, e below.

a. Airflow Rate Value 1 (val 1) = 400 cubic-feet-per-minute (cfm). If 400 cfm is not within the manufacturer's published range of airflow rates for the filter, value = N/A.

b. Airflow Rate Value 2 (val 2) = 800 cubic-feet-per-minute (cfm). If 800 cfm is not within the manufacturer's published range of airflow rates for the filter, value = N/A.

c. Airflow Rate Value 3 (val 3) = 1200 cubic-feet-per-minute (cfm). If 1200 cfm is not within the manufacturer's published range of airflow rates for the filter, value = N/A.

d. Airflow Rate Value 4 (val 4) = 1600 cubic-feet-per-minute (cfm). If 1600 cfm is not within the manufacturer's published range of airflow rates for the filter, value = N/A

e. Airflow Rate Value 5 (val 5) = Maximum Rated Airflow Rate (cfm).

3. Mark the non-reported MERV information field as “N/A.”

(B) Air filters for which reported information is determined in accordance with ASHRAE Standard 52.2-2012 shall be marked with the following information:

1. Particle size efficiency (PSE) of the unit in three particle size ranges: 0.3-1.0, 1.0-3.0, 3.0-10 micrometers (µm).

2. Initial resistance for the range of airflow rates as published by the manufacturer, including the maximum rated airflow rate. The airflow rate values shall be the maximum rated airflow rate, and the values for 50%, 75%, 100% and 125% of the test airflow rate value determined in accordance with ASHRAE 52.2-2012. as described in subsections a, b, c, d, e below.

a. Airflow Rate Value 1 (val 1) = 50% of the test airflow rate in cubic-feet-per-minute (50% of airflow rate value 3).

b. Airflow Rate Value 2 (val 2) = 75% of the test airflow rate in cubic-feet-per-minute (75% of airflow rate value 3).

c. Airflow Rate Value 3 (val 3) = 100% test airflow rate in cubic-feet-per-minute; determined as equal to selected test face velocity (feet per minute) multiplied by the air filter face area (square feet).

d. Airflow Rate Value 4 (val 4) = 125% of the test airflow rate in cubic-feet-per-minute (125% of airflow rate value 3.

e. Airflow Rate Value 5 (val 5) = Maximum Rated Airflow Rate (cfm).

3. Minimum Efficiency Reporting Value (MERV).

The information shall be disclosed in the format in Table Z.

Table Z
Sample Air Filter Marking

MERV	*(µm) PSE (%)*	*0.30-1.0*	*1.0-3.0*	*3.0-10*	*Airflow Rate (CFM)*	*[val 1]*	*[val 2]*	*[val 3]*	*[val 4]*	*[val 5]*	*Max Rated Airflow
[value]		[value]	[value]	[value]	Initial Resistance (IWC)	[value]	[value]	[value]	[value]	[value]	

If the marking on the air filter is not legible through its retail packaging, then the packaging shall also be labeled with the same information and in the same format as Table Z. The requirements of this section shall not preclude manufacturers from providing additional information.

(13) State-Regulated LED Lamps. State-regulated LED lamps shall meet the criteria below before making any of the relevant claims in marketing materials, including retail packaging or on the lamp itself.

(A) For lamps manufactured on or after January 1, 2018, the following shall be demonstrated before making a claim of being “dimmable.”

1. The lamp shall be dimmable to 10 percent of its full light output.

2. The lamp shall be reduced flicker operation;

3. Shall not produce noise in excess of 24 A-weighted decibels at 100 percent and 20 percent of full light output.

4. If the product cannot be reduced flicker operation using a standard phase-cut dimmer, but can be reduced flicker operation using another type of dimmer, references to dimmability shall be qualified with the phrase “dimmable with LED dimmer.” These lamps shall include instructions on or inside the retail packaging that describe, or contain an internet link to a description of, the type of dimmers that are compatible or recommended for use with the lamp.

(B) State-regulated LED lamps manufactured on or after January 1, 2018 shall meet all of the following requirements before including comparisons to incandescent lamps:

1. The lamp shall have a correlated color temperature of 3000K or less.

2. The lamp shall be “dimmable” as described in 1607(d)(13)(A) of this Article.

3. The lamp shall have a lumen output of 310 lumens or greater for medium-screw base lamps or 150 lumens or greater for intermediate and candelabra bases.

Exception to section 1607(d)(13)(B): Section 1607(d)(13)(B) does not apply to incandescent wattage equivalency claims.

(C) If the manufacturer makes incandescent wattage equivalency claims for medium screwbase and GU-24 base omnidirectional state-regulated LED lamps manufactured on or after January 1, 2018, the lamps shall have a minimum lumen output not less than the values shown in Table K-10.

Table K-10
Incandescent Wattage Equivalences for State-regulated LED Lamps

Incandescent wattage equivalence	***Minimum Lumen Output***
40 W	310
60 W	750
75 W	1050
100 W	1490
150 W	2500

(D) A lamp manufactured on or after January 1, 2018 that is certified with a lumen output of less than 150 lumens for candelabra bases, or less than 200 lumens for other bases, shall be labeled on the retail packaging as “for decorative purposes.”

(E) For lamps manufactured on or after February 1, 2017, if the manufacturer makes any marketing, label, or mark regarding a model’s qualification for the California Quality LED Lamp Specification, the manufacturer shall certify that the lamp model meets each and every portion of the California Quality LED Lamp Specification.

(14) Portable Electric Spas

(A) All portable electric spas manufactured on or after June 1, 2019, shall be marked by the manufacturer with the label specified in section 1607(d)(14)(B). The label shall be legible, conspicuously displayed to the consumer, and be removed only by the consumer.

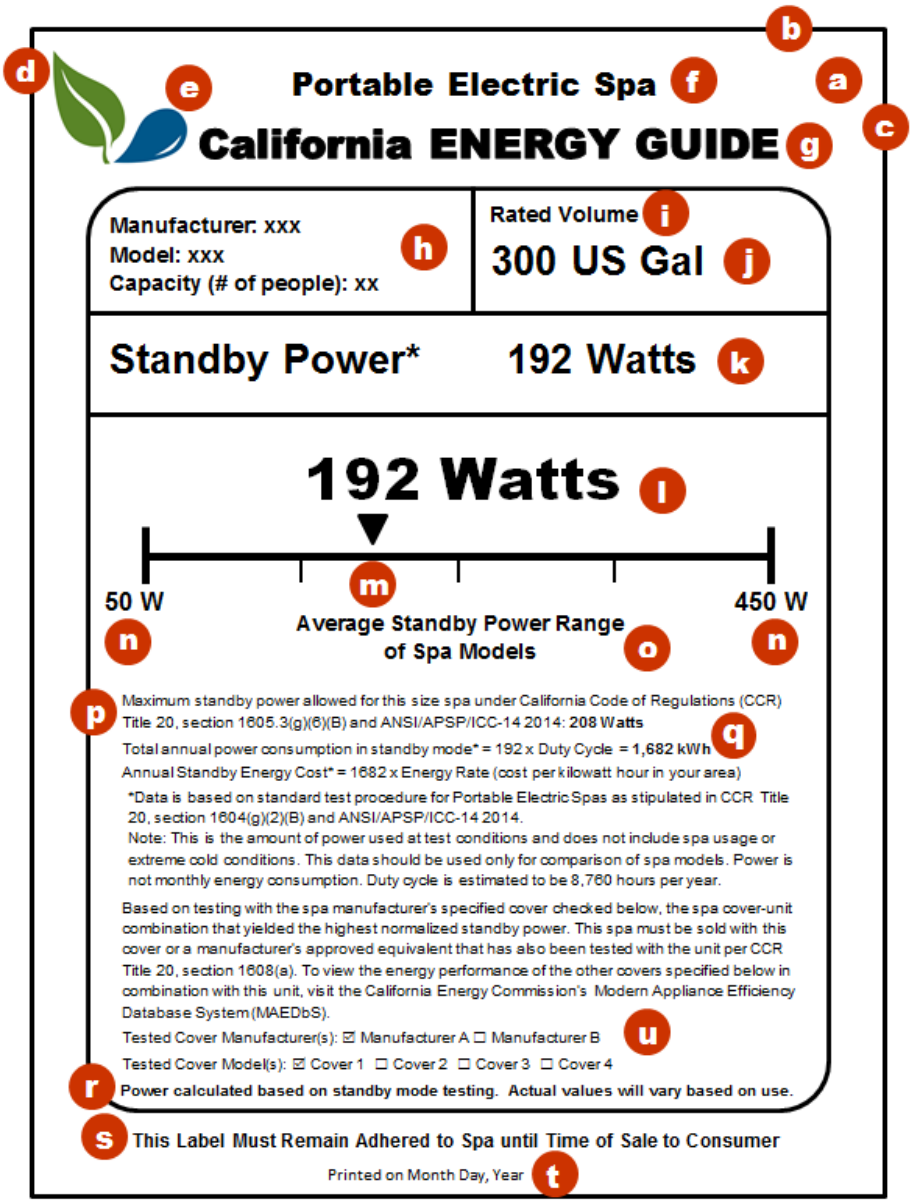
1. For standard, exercise, and combination spas, the label shall be affixed on a readily visible location on the shell or skirt panel of the unit.

2. For inflatable spas, the label shall be affixed on a readily visible location on the unit's retail packaging.

(B) The label for all portable electric spas shall conform to the design specifications listed in subdivisions (d)(14)(B)1. through (d)(14)(B)4. in this section (inclusive). If the spa has been tested with multiple spa covers, the label shall display the most recent performance data, the model number, and the manufacturer, as listed in MAEDbS, of the tested spa cover of the spa unit-cover combination that yielded the maximum normalized standby power test result obtained in accordance with section 1605.3(g)(6)(B). The label may display the most recent spa cover model number(s) and corresponding spa cover manufacturer(s) for other covers tested with the unit. If the label lists multiple spa covers, the label shall display the spa cover model number(s) and corresponding spa cover manufacturer(s) of the spa covers tested with the unit as listed in MAEDbS.

1. Label Specifications. The label shall be formatted as shown in Figure 1 and as directed in subdivision (d)(14)(B)2. of this section.

Figure 1. Label Design



2. Letter Codes for Figure 1 Label Design. Letter codes for Figure 1 above:

a. Shall be printed on a white label with black text.

b. Minimum label width: 5 inches.

c. Minimum label height: 6.25 inches.

d. Leaf color: equivalent to Pantone 363 green (also permitted to be black).

e. Water drop color: equivalent to Pantone 7691 blue (also permitted to be black).

f. Font: Helvetica Neue Black; character height shall not be less than 15 point type. For standard spas, inflatable spas, and the standard spa portion of combination spas the text shall state the following: Portable Electric Spa. For exercise spas and the exercise spa portion of combination spas, the text shall state the following: Exercise Spa.

g. Font: Helvetica Neue Black; character height shall not be less than 24 point type. Text shall state the following: California ENERGY GUIDE.

h. Font: Arial Bold; character height shall not be less than 9.5 point type. Text shall state the following:

Manufacturer: [insert name of manufacturer here]

Model: [insert model number here]

Capacity (# of people): [insert number of people here].

i. Font: Arial Bold; character height shall not be less than 9.5 point type. Text shall state the following: Rated Volume.

j. Font: Arial Bold; character height shall not be less than 16 point type. The text shall state the value of the rated volume in U.S. gallons and shall state the units of the rated volume as follows: US Gal.

k. Font: Arial Bold; character height shall not be less than 16 point type. The text shall state the following: Standby Power* [insert the normalized standby power value resulting from the test in watts here, rounded to a whole number] Watts.

l. Font: Helvetica Neue Black; character height shall not be less than 24 point type. The text shall state the normalized standby power value resulting from the test in Watts, rounded to a whole number, and shall state the units of the tested standby power.

m. The standby power chart arrow shall be scaled at the appropriate location between the minimum and maximum power range using the normalized standby power test result value for the spa which is being installed. The minimum standby power shall be 50 watts, and the maximum standby power shall be 450 watts for standard spas, inflatable spas, and the standard spa portion of combination spas. The minimum standby power shall be 100 watts and the maximum standby power shall be 750 watts for exercise spas and the exercise spa portion of combination spas. If the normalized standby power test result is outside the power range, add or subtract, in increments of 50 watts, from the minimum or maximum power range values, until the normalized standby power test result is within the power range and update the minimum or maximum power range values on the label.

n. Font: Arial Bold; character height shall not be less than 12 point type.

o. Font: Arial Bold; character height shall not be less than 9.5 point type. The text shall state the following: Average Standby Power Range of Spa Models.

p. Font: Arial; character height shall not be less than 8 point type, and may be horizontally scaled to no less than 85 percent. The text shall state the following:

Maximum standby power allowed for this size spa under California Code of Regulations (CCR) Title 20, section 1605.3(g)(6)(B) and ANSI/APSP/ICC-14 2014: [insert the allowed maximum normalized standby power value based on fill volume, rounded to a whole number] Watts.

Total annual power consumption in standby mode*: [insert the normalized standby power value resulting from the test in watts here, rounded to a whole number] x Duty Cycle = [insert calculated value of total annual power consumption in standby mode here in kilowatts per hour, rounded to a whole number] kWh.

Annual Standby Energy Cost* = [insert total annual power consumption value here, rounded to a whole number] x Energy Rate (cost per kilowatt hour in your area).

*Data is based on standard test procedure for Portable Electric Spas as stipulated in CCR Title 20, section 1604(g)(2)(B) and ANSI/APSP/ICC-14 2014. Note: This is the amount of power used during test conditions and does not include spa usage or extreme cold conditions. This data should be used only for comparison of spa models. Power is not monthly energy consumption. Duty cycle is estimated to be [insert duty cycle value in hours here. For standard spas, exercise spas, and combinations spas insert 8,760. For inflatable spas, insert 5,040] hours per year.

Based on testing with the spa manufacturer's specified cover checked below, the spa cover-unit combination that yielded the highest normalized standby power. This spa must be sold with this cover or a manufacturer's approved equivalent that has also been tested with the unit per CCR Title 20, section 1608(a). To view the energy performance of the other covers specified below in combination with this unit, visit the California Energy Commission's Modern Appliance Efficiency Database System (MAEDbS).

Tested Cover Manufacturer(s): ☐ [insert name of manufacturer(s) here, names shall be preceded by a checkbox].

Tested Cover Model(s): ☐ [insert cover model number(s) here, model numbers shall be preceded by a checkbox].

q. The format for the maximum standby power value and total annual power consumption value is the following: Font: Arial Bold. Character height shall not be less than 8 point type and may be horizontally scaled to no less than 85 percent.

r. Font: Arial Bold; character height shall not be less than 8 point type, and may be horizontally scaled to no less than 85 percent. The text shall state the following: Power calculated based on standby mode testing. Actual values will vary based on use.

s. Font: Arial Bold; character height shall not be less than 8 point type, and may be horizontally scaled to no less than 85 percent. The text shall state the following: This Label Must Remain Adhered to Spa until Time of Sale to Consumer.

t. Font Arial; character height shall not be less than 8 point type, and may be horizontally scaled to no less than 85 percent. The text shall state the following: Printed on [insert the month, day, and year the label was printed on].

u. The checkbox of the tested spa cover model number and corresponding spa cover manufacturer coinciding with the performance data shall be marked on the label.

3. The label shall be printed:

a. on a removable adhesive-backed white polymer label or the equivalent for standard, exercise, and combination spas.

b. as specified in subdivision (d)(14)(B)3.a. or integrated as part of the unit's retail packaging design for inflatable spas.

4. All adhesive labels shall be applied so they can be easily removed without the use of tools or liquids, other than water, but shall be applied with an adhesive with an adhesion capacity sufficient to prevent dislodgment during normal handling throughout the chain of distribution to the consumer.

The following documents are incorporated by reference in section 1607.

Number *Title*

CALIFORNIA ENERGY COMMISSION

California Energy Commission Voluntary California Quality Light Emitting Diode (LED) Lamp Specification (December 2017)

Copies available from: California Energy Commission
Energy Hotline
1516 Ninth Street, MS-25
Sacramento, California 95814
Phone: (916) 654-5106
FAX: (916) 654-4304

FEDERAL MARKING REQUIREMENTS

C.F.R., Title 16, part 305
C.F.R., Title 10, section 430.32(w)(4)

Copies available from: Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
www.ecfr.gov

International Efficiency Marking Protocol for External Power Supplies, Version 3.0, September 2013

Copies available from: U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Forrestal Building,
Mail Station EE-2J,
1000 Independence Avenue, SW.,
Washington, DC 20585-0121
http://www.regulations.gov/contentStreamer?documentId=EERE-2008-BT-STD-0005-0218&disposition=attachment&contentType=pdf

[CEC note: The official duplicate text intentionally omitted]

AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS (ASHRAE)

ANSI/ASHRAE/IES 90.1-2007	Energy Standard for Buildings Except Low-Rise Residential Buildings
Copies available from:	American Society of Heating, Refrigerating and Air-Conditioning Engineers 1791 Tullie Circle N.E. Atlanta, GA 30329 www.ashrae.org Phone: (800) 527-4723 (U.S./Canada) or (404) 636-8400 FAX: (404) 321-5478

Note: Authority cited: Sections 25213, 25218(e), 25402(a)-25402(c) and 25960, Public Resources Code. Reference: Sections 25216.5(d), 25402(a)-25402(c) and 25960, Public Resources Code.

§ 1608. Compliance, Enforcement, and General Administrative Matters.

(a) General Requirements for the Sale or Installation of All Appliances.

Any unit of any appliance within the scope of section 1601 of this Article may be sold or offered for sale in California only if:

(1) the appliance appears in the most recent MAEDbS established pursuant to section 1606(c) of this Article, unless the only reason for the appliance's absence from the MAEDbS is its failure to comply with an applicable standard in section 1605.1 of this Article;

(2) the manufacturer has:

(A) tested the appliance as required by sections 1603 and 1604 of this Article;

(B) marked the unit as required by section 1607 of this Article;

(C) for any appliance for which there is an applicable standard in section 1605.2 or 1605.3 of this Article, certified under section 1606(a) of this Article that the appliance complies with the standard;

(3) the unit has the same components, design characteristics, and all other features that affect energy or water consumption or energy or water efficiency, as applicable, as the units that were tested under sections 1603 and 1604 of this Article and for which information was submitted under section 1606(a) of this Article; and

(4) for any appliance for which there is an applicable standard in section 1605.2 or 1605.3 of this Article, the unit complies with the standard.

Exceptions to Sections 1608(a)(1) and 1608(a)(2)(C) of this Article. Sections 1608(a)(1) and 1608(a)(2)(C) of this Article are not applicable to:

1. external power supplies,

2. compressors,

3. portable air conditioners (except for spot air conditioners),

4. small electric motors, or

5. à la carte chargers meeting the EXCEPTION noted in section 1605.3(w)(2) of this Article.

(b) Appliances Not in the MAEDbS.

If the Executive Director determines that an appliance requiring certification that is not in the MAEDbS is being sold or offered for sale in California, he or she shall take appropriate legal action to restrain and discourage such sale or offering, including, but not limited to testing units of the appliance at the manufacturer's cost and seeking appropriate judicial action.

(c) All Appliances: Submittal of Reports of Manufacturers' Certification Testing.

(1) For any appliance, the Executive Director may at any time request from a manufacturer a copy of the test report that describes the results of the testing that was performed pursuant to section 1604 of this Article and that provides the basis for the information submitted under section 1606(a)(3)(C) of this Article. The request shall be sent to the e-mail address designated in section 1606(a)(2)(B) of this Article. If the Executive Director includes with the request information that, in his or her opinion, constitutes substantial evidence that the appliance or the manufacturer is not in compliance with an applicable provision of this Article, or that the energy or water performance of the appliance is not as certified under section 1606(a)(3)(C) of this Article or is not as required by an applicable standard in section 1605.1, 1605.2, or 1605.3 of this Article, then the manufacturer shall provide a copy of the applicable test report to the Executive Director within 5 days of the manufacturer's receipt of the request.

(2) If the Executive Director does not receive the test report within the required time, the Executive Director shall remove the appliance from the MAEDbS.

(3) If the test report indicates that the energy or water consumption of the appliance is greater than, or the energy or water efficiency of the appliance is less than, the consumption or efficiency certified by the manufacturer pursuant to section 1606(a)(3)(C) of this Article, the Executive Director shall, after providing electronic notice via e-mail or directly through the MAEDbS to the person designated in section 1606(a)(2)(B) of this Article, modify the listing of the appliance in the MAEDbS to reflect accurately the test report.

(4) If the test report indicates that the appliance model does not comply with an applicable standard in section 1605.1, 1605.2, or 1605.3 of this Article, the Executive Director shall, ten days after providing electronic notice via e-mail or directly through the MAEDbS to the person designated in section 1606(a)(2)(B) of this Article, remove the model from the MAEDbS.

(d) Inspection by the Executive Director of Appliances Subject to Energy Design and Water Design Standards, and Marking Requirements.

(1) The Executive Director shall periodically inspect appliances sold or offered for sale in the state, to determine whether they conform with the applicable energy design and water design standards of sections 1605.1, 1605.2, and 1605.3 of this Article, and with the applicable marking requirements of section 1607 of this Article.

(2) Inspection of an appliance shall consist of inspection of one unit.

(A) If the inspection indicates that the unit complies with the applicable energy or water design standards and marking requirements, the matter shall be closed.

(B) If the inspection indicates that the unit does not comply with an applicable energy or water design standard or as applicable marking requirement, the Energy Commission shall undertake a proceeding pursuant to Sections 11445.10-11445.60 of the California Government Code (or, at the manufacturer's option, pursuant to Sections 11425.10-11425.60 of the California Government Code). If the Energy Commission confirms the Executive Director's determination, then he or she shall remove the appliance from the MAEDbS.

(e) Executive Director's Enforcement Testing of Appliances Subject to Energy Efficiency, Energy Consumption, Water Efficiency, and Water Consumption Standards.

The Executive Director shall periodically cause, at laboratories meeting the criteria of section 1603(a) of this Article, the testing of appliance units sold or offered for sale in the state, to determine whether the appliances conform with the applicable standards in sections 1605.1, 1605.2, and 1605.3 of this Article, and to determine whether their performance is as reported or certified by the manufacturer pursuant to section 1606(a) of this Article. Testing shall be performed as follows:

(1) Initial Test. The Executive Director shall perform an initial test on one unit, using the applicable test procedure specified in section 1604 of this Article. Upon completion of the initial test, the Executive Director shall make a determination as follows:

(A) Performance Is No Worse Than Required by Standards and Is No Worse Than as Certified by Manufacturer or Third-Party Certifier. If the initial test result indicates that the energy and water consumption of the unit is no greater than, and the energy and water efficiency of the unit is no less than, the consumption or efficiency that is permitted and required by all applicable standards in section 1605.1, 1605.2, or 1605.3 of this Article, and that was certified by the manufacturer or third-party certifier pursuant to section 1606(a) of this Article, the matter shall be closed.

(B) Performance Is Worse Than Required by Standard or Is Worse Than as Certified by Manufacturer or Third-Party Certifier. If the initial test result indicates that the energy or water consumption of the unit is greater, or the energy or water efficiency of the unit is less, than the consumption or efficiency that is permitted or required by any applicable standard in section 1605.1, 1605.2, or 1605.3 of this Article, or that was certified by the manufacturer or third-party certifier pursuant to section 1606(a) of this Article, the Executive Director shall perform a second test on a second unit, using the applicable test procedure specified in section 1604 of this Article.

(2) Second Test; Mean of Results. If a second test is performed, the Executive Director shall calculate the mean of the results of the initial test and the second test. Upon

completion of the second test, the Executive Director shall inform the manufacturer of the results and shall make a determination as follows:

(A) Performance Is No Worse Than Required by Standards and Is No Worse Than as Certified by Manufacturer or Third-Party Certifier. If the two test results indicate that the mean energy and water consumption of the two units is no greater than, and the mean energy and water efficiency of the two units is no less than, the consumption and efficiency permitted or required by all applicable standards in section 1605.1, 1605.2, or 1605.3 of this Article, and that was certified by the manufacturer or third-party certifier pursuant to section 1606(a) of this Article, the matter shall be closed.

(B) Performance is As Required by Standard but is Worse Than as Certified by Manufacturer or Third-Party Certifier. If the two test results indicate that the mean energy or water consumption of the two units is greater than, or the mean energy or water efficiency of the two units is less than, the consumption or efficiency that was certified by the manufacturer or third-party certifier pursuant to section 1606(a) of this Article, but that the mean result nevertheless complies with all applicable standards in section 1605.1, 1605.2, or 1605.3 of this Article, the Energy Commission shall undertake a proceeding pursuant to Sections 11445.10-11445.60 of the California Government Code (or, at the manufacturer's option, pursuant to Sections 11425.10-11425.60 of the California Government Code). If the Energy Commission determines that the two test results indicate that (1) the mean energy or water consumption of the two units is greater than, or the mean energy or water efficiency of the two units is less than, the consumption or efficiency as reported or certified by the manufacturer pursuant to section 1606(a) of this Article, and (2) the mean result nevertheless complies with all applicable standards in section 1605.1, 1605.2, or 1605.3 of this Article, then the Executive Director shall modify the listing of the appliance in the MAEDbS to reflect accurately the Energy Commission's determination.

(C) Performance is Not As Required by Standard. If the two test results indicate that the mean energy or water consumption of the two units is greater than, or the mean energy or water efficiency of the two units is less than, any applicable standard in section 1605.1, 1605.2, or 1605.3 of this Article, the Energy Commission shall undertake a proceeding pursuant to Sections 11445.10-11445.60 of the California Government Code (or, at the manufacturer's option, Sections 11425.10-11425.60 of the California Government Code). If the Energy Commission determines that the mean energy or water consumption of the two units is greater than, or the mean energy or water efficiency of the two units is less than any applicable standard, the Executive Director shall remove the appliance from the MAEDbS established pursuant to section 1606(c) of this Article.

(3) Optional Method of Determining Energy or Water Performance. If, at any time before an Energy Commission determination under section 1608(e)(2)(B) or 1608(e)(2)(C) of this Article, the manufacturer so chooses, instead of using the mean-of-two-units approach set forth in sections 1608(e)(1) and 1608(e)(2) of this Article, the Executive Director shall test the appliance using the sampling method set forth in 10 C.F.R. part 429 Appendix A (for consumer products and certain high-volume commercial equipment), Appendix B (for covered equipment and certain low-volume covered products), or Appendix C (for distribution transformers) to subpart C of part 429 and shall make the determinations under sections 1608(e)(1) and 1608(e)(2) of this Article based on those test results. The manufacturer shall pay for all such testing.

(f) Costs.

Except as otherwise provided in this Article, all costs of initial tests showing results as described in section 1608(e)(1)(A) or section 1608(e)(2)(A) of this Article shall be borne by the Energy Commission. All costs of all other tests shall be paid by the manufacturer.

(g) Federally Regulated Appliances.

If:

(1) the appliance tested is a federally regulated consumer product or federally regulated commercial and industrial equipment; and

(2) either:

(A) the test results show that the appliance does not comply with an applicable federal standard or other applicable federal requirement; or

(B) the test results are at variance with the results reported by the manufacturer to the U.S. Department of Energy or the U.S. Federal Trade Commission; then, in addition to taking the applicable actions described in sections 1608(e)(1) and 1608(e)(2) of this Article, the Executive Director shall inform the appropriate federal agency.

(h) Forms and Formats Specified by Executive Director.

The Executive Director may specify, and require the use of, any particular form or format for the submittal of any data, reports, or other information required by this Article, including but not limited to computer programs or formats.

(i) Executive Director Determinations.

Whenever this Article refers to a finding, conclusion, or other determination by the Executive Director, any person seeking such a determination shall submit to the Executive Director a written request. Within 10 days of receipt of a request, the Executive Director shall either find the request is complete and so inform the applicant, or return the request to the applicant with a statement of what additional information is necessary to make it complete. Within 21 days of receipt of a complete request, the Executive Director shall make a determination, which shall be within the discretion of the Executive Director acting on the basis of the entire record, which shall be assembled and made publicly available by the Executive Director. Within 10 days of a determination, whether made in response to a request or made on the Executive Director's own initiative, any affected person, including but not limited to the person, if any, who made a request for the determination, may appeal the determination to the Energy Commission in writing. At the same time that the appeal is filed, the appellant shall file all the evidence the appellant wishes the Energy Commission to consider. The Energy Commission staff and any affected person shall file all the evidence they wish the Energy Commission to consider within 20 days after the appeal is filed. The Energy Commission shall hear and decide the appeal at the next regularly scheduled business meeting that is at least 30 days after the appeal is filed. At the hearing the Energy Commission may require the filed evidence to be presented under oath and may allow questions and cross-examination from participants.

The following document is incorporated by reference in section 1608.

Number	*Title*
	FEDERAL ENFORCEMENT SAMPLING METHOD
	C.F.R., Title 10, part 429, Appendices A, B, and C

Copies available from: Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402
www.ecfr.gov

Note: Authority cited: Sections 25213, 25218(e), 25402(a)-(c) and 25960, Public Resources Code. Reference: Sections 25216.5(d), 25402(a)-(c) and 25960, Public Resources Code.

§ 1609. Administrative Civil Penalties.

(a) Violations Subject to Administrative Civil Penalties.

(1) Any person, including a retailer, manufacturer, contractor, importer or distributor, that sells or offers for sale an appliance, which is not listed in the MAEDbS, is in violation of section 1608(a)(1) of this Article and may be subject to an administrative civil penalty for each unit of the appliance that was sold or is offered for sale.

(2) Any person who manufactures, imports or distributes an appliance that is subsequently sold or offered for sale by another person for end use in California, when the manufacturer has not tested, marked or certified the appliance, in violation of sections 1608(a)(2)(A), 1608(a)(2)(B), or 1608(a)(2)(C) of this Article, or when the appliance does not meet the efficiency standards referred to in sections 1608(a)(3) and 1608(a)(4) of this Article, may be subject to an administrative civil penalty for each unit of the appliance that was sold or is offered for sale, unless the manufacturer, distributor or importer can demonstrate both that the appliance was intended for shipment and use outside of California, and that the manufacturer, distributor or importer took reasonably prudent precautions to assure that the appliance would not be sold or offered for sale in California.

(3) Any person who knowingly provides materially false information to the Energy Commission in a statement made pursuant to any provision of this Article that includes a declaration, executed under penalty of perjury, may be subject to an administrative civil penalty. This may be in addition to any administrative civil penalty assessed pursuant to sections 1609(a)(1) or 1609(a)(2) of this Article. The Energy Commission may consider the making of a false statement in a declaration submitted under penalty of perjury to be evidence of willfulness under section 1609(b)(3)(E) of this Article.

(b) Assessment of Administrative Civil Penalties.

(1) An administrative civil penalty of up to the maximum amount provided by Section 25402.11 of the Public Resources Code may be assessed for each unit of the appliance that was sold or is offered for sale in California in violation of section 1608(a) of this Article, pursuant to sections 1609(a)(1) or 1609(a)(2) of this Article, or for each false statement, pursuant to section 1609(a)(3) of this Article.

(2) If more than one person is responsible for a sale or offer for sale in violation of section 1608(a) of this Article, the Energy Commission may apportion liability amongst the persons responsible for the violation.

(3) In determining the amount of an administrative civil penalty for each violation, the Energy Commission shall consider the following factors:

(A) The nature and seriousness of the violation.

(B) The persistence of the violation, meaning a responsible person's history of past violations of this Article over the previous seven years.

(C) The number of violations arising from the course of conduct that is the subject of the enforcement proceeding.

(D) The length of time over which the violation occurred.

(E) The willfulness of the persons responsible for the violation.

(F) The harm to consumers and to the state that resulted from the amount of energy wasted due to the violation.

(G) The number of persons responsible for the violation.

(H) The efforts of the persons responsible for the violation to correct the violation prior to initiation of an enforcement action by the Energy Commission.

(I) The cooperation, by persons responsible for the violation, with the Energy Commission during its investigation.

(J) The assets, liabilities, and net worth of the persons responsible for the violation. This information will be considered to reduce the administrative civil penalty amount, should a responsible person or persons elect to provide asset, liability, and net worth documentation to the Executive Director to demonstrate that a reduction in a penalty amount is necessary to avoid an undue burden.

(c) Notices of Violation.

The Executive Director, or his or her designee, shall send a written Notice of Violation by certified mail (registered mail to non-U.S. destinations) or other means that provide actual notice to the person in violation of this Article. The Notice of Violation shall contain the following information:

(1) The name and address of the person responsible for the violation;

(2) A statement indicating the statute, regulation, order, or decision upon which the Notice of Violation is based, including any provisions relating to the assessment of administrative civil penalties;

(3) A statement of facts upon which the Notice of Violation is based, including a description of the appliances or units of appliances at issue and a reference to model numbers.

(d) Settlement.

Consistent with California Government Code Section 11415.60, the Energy Commission may at any time issue a decision by settlement with a responsible person. The settlement agreement may include appropriate sanctions and remedies to address violations and promote compliance.

(e) Administrative Proceedings.

(1) No earlier than 30 days after issuing a Notice of Violation, the Executive Director may initiate an adjudicative proceeding to impose administrative civil penalties if the Executive Director determines that the responsible person has not made sufficient progress in addressing the violations identified in the Notice of Violation.

(2) The proceeding shall be initiated by filing and serving an accusation as specified in California Government Code Section 11505. The accusation shall include an assessment of penalties based on the factors set forth in subsection (b)(3), and may include other information from the Notice of Violation.

(3) The proceeding shall be conducted in a manner consistent with Chapter 4.5 (commencing with Section 11400) and Chapter 5 (commencing with Section 11500) of part 1 of Division 3 of Title 2 of the California Government Code.

(4) The proceeding shall be heard by an administrative law judge pursuant to Government Code Section 11517(c), unless the Chair orders that the proceeding be heard directly by the Energy Commission with the assistance of an Administrative Law Judge pursuant to California Government Code Section 11517(b).

(5) After the hearing referenced in section 1609(e)(4) of this Article, the Energy Commission shall issue or adopt a decision on whether a violation of this article has been committed, and assess appropriate penalties based on application of the factors set forth in section 1609(b)(3) of this Article.

(f) Other Enforcement Procedures.

The Executive Director and Energy Commission may take other such actions as are authorized by statute and Energy Commission regulations to address or prevent any act or omission addressed under this Article.

(g) Judicial Review.

An order of the Energy Commission imposing an administrative civil penalty shall be subject to judicial review pursuant to Public Resources Code Sections 25534.2(a) and 25534.2(b).

Note: Authority cited: Sections 25213, 25218 and 25402.11, Public Resources Code. Reference: Sections 25402 and 25402.11, Public Resources Code.

Article 5. Load Management Standards

§ 1621. General Provisions.

(a) Purpose. This article establishes electric load management standards pursuant to Section 25403.5 of the Public Resources Code.

These standards establish cost-effective programs which will result in improved utility system efficiency, will lessen or delay the need for new electrical capacity, reduce fuel consumption, and will thereby lower the long-term economic and environmental costs of meeting the State's electricity needs.

(b) Application. Each of the standards in this article applies to the following electric utilities: Los Angeles Department of Water and Power, San Diego Gas and Electric Company, Southern California Edison Company, Pacific Gas and Electric Company, and Sacramento Municipal Utility District.

The California Energy Commission has found these standards to be technologically feasible and cost effective when compared with the costs for new electrical capacity for the above-named electric utilities.

(c) Definitions. In this article, the following definitions apply:

(1) "Utility" means those electric utilities to which the sections of this article apply, as specified in subsection (b).

(2) "Service area" is the geographic area in which the utility supplies electricity to retail customers.

(3) "Rate-approving body" means the California Public Utilities Commission in the case of investor-owned utilities, such as the San Diego Gas and Electric Company, the Southern California Edison Company, and the Pacific Gas and Electric Company. It means the governing body of publicly owned utilities such as the Los Angeles Department of Water and Power, and the Sacramento Municipal Utility District.

(4) "Residential" means any family dwelling within the utility's service area which uses electricity for noncommercial purposes as defined in the utility's terms and conditions of service.

(5) "Water heater" means any residential electric water heater except those which provide hot water to heat space or those which operate within electric dishwashers.

(6) "Central air conditioner" means any residential electric air conditioner which delivers cooled air through ducts to rooms.

(7) "Marginal cost" is the change in current and committed future utility cost that is caused by a customer initiated change in electricity usage. Total marginal cost may be divided into the commonly known categories of marginal energy, marginal capacity, and marginal customer costs, or any other appropriate categories.

(8) "Commercial customers" means those customers of a utility who run any business described in Standard Industrial Classification Groups 40 through 86, and 89 through 99, and which do not treat sewage or manufacture goods or provide other process-oriented services.

(i) "Large commercial customers" are those businesses whose demand for electricity equals or exceeds 500 kilowatts.

(ii) "Small commercial customers" are those businesses whose demand for electricity is less than 500 kilowatts.

(9) "Building type" means the classification of a non-residential building in accordance with the following table:

Building Type	*Description*
1	Office
1.1	*Small (0-30,000 sq. ft.)*
1.2	*Med (30,000-200,000 sq. ft.)*
1.3	*Large (200,000 + sq. ft.)*
1.3.1	*Lowrise (two or less stories)*
1.3.2	*Highrise (three or more stories)*
2	*Retail*
2.1	*Retail -General*
2.1.1	*Small (1-9,000 sq. ft.), detached*
2.1.2	*Small (1-9,000 sq. ft.), attached*
2.1.3	*Med(9,000-20,000 sq.ft.), detached*
2.1.4	*Med (9,000-20,000 sq. ft.),attached*
2.1.5	*Med (9,000-20,000 sq. ft.), enclosed mall*
2.1.6	*Large (20,000 + sq. ft.), detached*
2.1.7	*Large (20,000 + sq. ft.), attached*
2.1.8	*Large (20,000 + sq. ft.), enclosed mall*
2.1.9	*Highrise department store (three or more stories)*
2.2	*Retail -Food*
2.2.1	*Small (1-5,000 sq. ft.)*
2.2.2	*Large (5,000 + sq. ft.)*
3	*Restaurants*
3.1	*Fast Food*
3.2	*Sit-down*
4	*Storage Buildings*
4.1	*Conditioned*
4.2	*Unconditioned*
5	*Hotels and Motels*
5.1	*Large (50,000 + sq. ft.)*
5.2	*Small (less than 50,000 sq. ft.)*
6	*Schools*
6.1	*Elementary/pre-schools*
6.2	*Jr. high/high schools*
6.3	*Jr. colleges/trade schools*
6.4	*Colleges/universities*
7	*Public assembly buildings*
7.1	*Auditoriums*
7.2	*Theaters*
7.3	*Sports arenas*

8		*Health care facilities*
	8.1	*General hospitals*
	8.2	*Research hospitals*
	8.3	*Mental hospitals*
	8.4	*Convalescent hospitals/homes*
9		*Computer facilities*
10		*Auto repair and service stations*
11		*Miscellaneous*

(10) "Conditioned Space" means the space, within a building which is provided with a positive heat supply or positive method of cooling.

(d) Review and Approval of Utility Submittals. These load management standards require utilities to submit various plans to the Executive Director. All such submittals shall be reviewed by the Executive Director, and shall be subject to approval by the full Commission. The Executive Director shall complete his review of such submittals and shall report to the Commission within thirty calendar days after receipt as to whether the submittal is consistent with the provisions of this article. Within thirty calendar days after the Executive Director renders his report, the Commission shall, following a public hearing, approve or disapprove the submittal. The Commission may also approve a submittal on condition that the utility make specified changes or additions to the submittal, within a reasonable period of time set by the Commission. A conditional approval shall not take effect until the utility makes the specified changes or additions to the submittal under review. The Commission shall approve submittals which are consistent with these regulations and which show a good faith effort to plan to meet program goals for the standards.

If the Commission disapproves a submittal, the utility shall be notified of the specific reasons for such disapproval, and the utility shall submit a revised submittal for review by the Executive Director in accordance with the provisions of this subsection.

(e) Information Requests. In order to facilitate his review of a utility's compliance with the provisions of this article, the Executive Director may request a utility to furnish copies of any information in the utility's possession which is relevant to its implementation of these standards, including any tariff proposals and associated information which it submits to its rate-approving body. The Executive Director may set a reasonable period of time within which the utility must supply the requested information.

If any document which is requested by the Executive Director contains proprietary information or trade secrets, the utility shall only be required to furnish the document to the Executive Director, if the Commission has established procedures, after a public hearing, for the protection of such proprietary information or trade secrets.

(f) Revisions of Approved Plans. Each time a utility significantly revises any plan or part of a plan required by this article, that was previously approved by the Commission, it shall submit this revised plan for review and approval pursuant to subsection (d) above. Such revised plan shall not be valid until it is approved by the Commission.

If the Executive Director believes that new technologies, the state of the economy or other new information warrant revisions to plans which have already been approved, he shall request the utilities to make the appropriate revisions as part of their next annual report or within 90 days, whichever comes later. If the Executive Director issues such a request, the utility shall submit a revised plan for review and approval pursuant to subsection (d) above.

(g) Modifications to Program Goals. If, during the planning or execution of any program required by this article, a utility, despite its best good faith efforts, believes that it cannot achieve one or more of the program goals set forth in the various sections of this article or that a program is not cost-effective, the utility may submit a report to the Commission explaining the reasons therefore, and indicating when the utility believes that it could achieve the program goal or goals, or suggesting alternative goals. If based upon the utility report, or its own studies, the Commission finds that there are good and sufficient reasons for the utility not being able to achieve the goal or goals, the Commission shall modify any previously approved goal for that utility to one that is feasible and cost-effective for the utility to achieve.

(h) Utility Request for Exemptions.

(1) A utility may, at any time after the effective date of this article, apply to the Commission for an exemption from the obligation to comply with any or all of these standards. Any such application shall set forth in detail the reasons why a denial of the application by the Commission would result in extreme hardship to the utility, or in reduced system reliability and efficiency, or why the standard or standards from which the exemption is sought would not be technologically feasible or cost-effective for the utility to implement. The application shall also set forth the period of time during which the exemption would apply, and shall indicate when the utility reasonably believes the exemption will no longer be needed.

(2) Within 30 days after receipt of any such application, the Commission shall hold a hearing to consider whether there is sufficient information contained in the application to justify further hearings on the merits. If the Commission finds that the application does not contain sufficient information, it shall dismiss the application, and notify the utility f the specific reasons for the dismissal. The utility may thereafter submit a revised application in good faith.

(3) If the Commission finds that the application does contain sufficient information, it shall schedule such further hearings as may be necessary to fully evaluate the application.

(4) If, after holding hearings, the Commission decides to grant an exemption to a utility, the Commission shall issue an order granting exemption. The order shall set forth findings and specific reasons why the exemption is being granted.

(i) Noncompliance. The Executive Director may, after a review of the matter with the utility, file a complaint with the Commission, alleging that the utility is not in compliance with the provisions of this article:

(1) If the utility is not conducting a program in conformance with the provisions of its approved plan;

(2) If the utility fails to provide a required submittal in a timely manner; or

(3) If the utility fails to make requested changes or additions to any such submittal within a reasonable time.

(j) Recovery of Program Costs. In its rate applications, each utility shall seek to recover the full costs associated with conducting each program required by this article from the class of customers which the program most directly affects. The utility shall not be required to commence implementation of any program required by this article until the utility's rate-approving body has approved the tariffs which are a part of any such program and a method for recovering the costs of the program.

(k) Notwithstanding Section 2231 of the Revenue and Taxation Code, there shall be no reimbursement to local government entities (i.e., the Los Angeles Department of Water and Power and the Sacramento Municipal Utility District) for the costs of carrying out the programs mandated by these standards, because the Commission has found these standards to be cost-effective. The savings which these entities will realize as a result of carrying out these programs will outweigh the costs associated with implementing these programs.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Section 25403.5, Public Resources Code.

§ 1622. Residential Load Management Standard.

(a) Application. The provisions of this section are applicable to residential electric water heaters and electric central air conditioners.

(b) Peak Load Cycling Program. The utility shall carry out a peak load cycling program, if such a program has been found to be cost effective for the utility. Under this program, the utility shall offer to install remote load switches in those identified residences in the utility's service area which contain electric water heaters or central air conditioners. The switches shall allow the utility to cycle any of these electric appliances.

(c) Program Implementation. The utility's peak load cycling program shall consist of three phases as follows:

(1) Peak Load Cycling Plan Development Phase. The purpose of this phase is to allow the utility to develop a Peak Load Cycling Plan which will accomplish the program goals set forth in subsection (d) below. The requirements for the plan are specified in subsection (e) below. The utility may conduct experimental Peak Load Cycling Programs prior to approval of its Peak Load Cycling Plan by the Commission. Any such program shall, to the maximum extent feasible, be consistent with the provisions of the Peak Load Cycling Plan which is being developed by the utility or which has been submitted pursuant to Section 1621(d). Any expenditure which the utility makes in connection with any such experimental program prior to the approval of its Peak Load Cycling Plan shall be subject to the approval of the utility's rate-approving body.

(2) Testing and Evaluation Phase. The purpose of this phase is to allow the utility to conduct detailed testing and evaluation of alternative technologies for peak load cycling, of customer acceptance of peak load cycling, and of the benefits of peak load cycling in terms of reduced peak demand, at a low level of implementation. The testing and evaluation phase shall commence as soon as the Commission has approved the utility's Peak Load Cycling Plan and the utility's rate-approving body has approved program-related tariffs and a method for recovering the cost of the program. Once this phase has commenced, it shall last for 28 months.

(3) Systemwide Implementation Phase. The purpose of this phase is to achieve the maximum feasible level of system load reduction in the utility's peak load cycling program. This phase shall commence after the Commission takes action pursuant to subsection (h) below.

While the utility is carrying out these phases of its peak load cycling program, it shall cooperate on an ongoing basis with the Commission Staff in evaluating the relative merits of alternative hardware systems, in determining the optimal approaches for obtaining maximum customer participation in peak load cycling programs, and in improving and refining

methodologies for calculating the cost-effectiveness of peak load cycling programs and other load management programs.

(d) Program Goal. The utility's peak load cycling program shall be designed and carried out to achieve the following goals:

(1) By the end of the testing and evaluation phase, the utility shall have installed remote load switches on approximately 8 percent of the total of all identified residential central air conditioners in the utility's service area, except that a utility may install switches on a greater or lesser percentage of those appliances, if, in its peak load cycling plan, the utility provides information which demonstrates that a program goal of more or less than eight percent will be more cost-effective for the utility to implement, and if the Commission approves the utility's plan. The utility shall maintain a level of implementation according to an approved Peak Load Cycling Plan.

(2) By the end of the testing and evaluation phase, the utility shall have installed remote load switches on a sufficient number of residential electric water heaters in the utility's service area to allow the Commission to determine whether it would be cost-effective for the utility to implement a peak load cycling program for residential electric water heaters on a system-wide basis. The utility shall indicate the number of residential electric water heaters which will be subject to this experimental program in its peak load cycling plan as well as the test program methodology for determining cost effectiveness. In carrying out its peak load cycling program for such appliances, the utility shall maintain the level of implementation set forth in its peak load cycling plan.

(e) Peak Load Cycling Plan. No later than eight months after this article becomes effective, the utility shall submit a Peak Load Cycling Plan. This Plan shall show how the utility intends to meet the goal set forth in subsection (d) above. This plan shall, as a minimum, include the following elements of a peak load cycling program.

(1) Objectives -The plan shall describe, in detail, the utility's objectives in pursuing the peak load cycling program. The Plan shall include an assessment of the impact of the peak load cycling program on system reliability, need for new capacity, fuel efficiency, and overall costs.

(2) Organization -The plan shall describe how the utility will organize and manage the peak load cycling program. It shall include organization charts, qualifications for each position and the reporting relationship of the effort to the President or General Manager of the utility. The plan shall describe how the utility intends to recruit and hire the personnel needed to staff the proposed organization.

(3) Schedule and Budget -The plan shall include a detailed schedule for each of the program elements during the testing and evaluation phase. The schedule shall indicate each task required to complete each element, the level of effort assigned to each task, and the beginning and ending dates of each task. The plan shall include the utility's detailed budget for carrying out all elements of the peak load cycling program. It shall display dollars budgeted over time, by task, for personnel, equipment, and outside contractors.

(4) Customer Identification -The plan shall describe how the utility intends to identify those residences in its service area which are equipped with electric water heaters and central air-conditioners. The plan shall also set forth the utility's determinations as to which segment or segments of its customers, and which locations will be selected for inclusion in the testing and

evaluation phase of the utility's peak load cycling program. Such determinations shall be based on an analysis of the mix of appliances and those locations for which the peak load cycling program carried out during the testing and evaluation phase will provide the most cost-effective reductions in peak system load. This analysis shall utilize a sampling technique which assumes that the results of the testing and evaluation phase will serve as an adequate basis for identifying the probable effects of systemwide implementation. The results of this analysis shall be submitted with the plan.

(5) Customer Acceptance -The plan shall describe how the utility intends to assess customer attitudes toward participation in the peak load cycling program. It shall describe how the utility will use this information to tailor both the peak load cycling program and the public education element to encourage customer participation. The plan shall describe how the utility intends to estimate the various levels of customer participation that will occur with various levels of interruptible tariff. This element of the plan shall draw upon the experiences of other utilities in similar programs as well as any primary research that the utility may propose.

(6) Interruptible Tariffs -The plan shall describe how the utility intends to develop and propose interruptible tariffs which will encourage its residential customers to participate in the peak load cycling program. The value of the customer incentives contained in such tariffs shall not exceed the et cost savings to the utility from the customer's participation in the program. These tariffs shall prescribe alternative rates which correspond to different cycling schedules. In addition, the plan shall indicate how the utility, during the testing and evaluation phase, intends to investigate and evaluate alternative methods for recovering the costs associated with the installation of remote load switches on a systemwide basis. Interruptible tariffs which are offered to customers who participate in the program should reflect the differences, in terms of costs to the utility, of any such alternative methods. When the utility submits its Peak Load Cycling Plan, it shall also include its proposed interruptible tariff schedule.

(7) Public Education -The plan shall describe how the utility will inform the public about the peak load cycling program.

(8) Equipment Selection - The plan shall describe how the utility intends to select the equipment needed to carry out the peak load cycling program. It shall describe how the utility will review and evaluate the various types of equipment that are available and how a selection will be made. It shall describe how the utility intends to stay abreast of the state-of-the-art and incorporate technological improvements and cost reductions into its equipment system as these become available. The plan shall describe the steps that the utility will take to assure that the selected equipment is delivered in time to meet specified program goals.

(9) Customer Sign-Up -The plan shall describe the procedures which the utility intends to utilize to solicit customer participation in the peak load cycling program. The plan shall describe how these procedures are reasonably related to the specified program goals.

(10) Equipment Installation and Maintenance -The plan shall describe how the utility intends to install and maintain equipment (including remote load switches) in an economical and professional manner that causes minimum inconvenience and disruption to customers.

(11) Program Operations - The plan shall describe how the utility intends to use remote load switches to meet the purposes in Section 1621(a). It shall describe how the switches will coordinate with system dispatching procedures and equipment. The plan shall describe how the utility intends to respond to customer questions, problems, or complaints about the program.

(12) Program Evaluation - The plan shall describe how the utility intends to evaluate, on an ongoing basis, the quality and performance of each element of the peak load cycling program. It shall describe how evaluations will be made and the results fed back into each element to improve the program on a regular basis. The plan shall include an outline of the reporting formats that the utility intends to use for progress reports to the Commission, and it shall show how the Commission will be notified, in a timely manner, of unexpected delays or difficulties in implementing the program.

(13) Other Information - The plan shall include any other information that the utility deems appropriate for Commission consideration in relation to the peak load cycling program.

Review and approval of Peak Load Cycling Plans shall be carried out in accordance with the provisions of Section 1621(d).

The utility's peak load cycling program shall be carried out in accordance with the provisions of an approved Peak Load Cycling Plan. No later than one month after the Commission has approved a utility's Peak Load Cycling Plan, the utility shall ask its rate-approving body to grant the proposed interruptible tariffs and to approve a method for recovering the costs of the program.

(f) Progress Reports. Within 18 months and within 30 months after the testing and evaluation phase commences pursuant to Section 1622(c)(2), the utility shall submit Progress Reports to the Executive Director. These Reports shall specify the number of appliances subject to this standard, the number of appliances with remote load switches, and the number of appliances on each peak load cycling schedule, and it shall include an evaluation of the technical performance of the remote load switches, an evaluation of the observed impacts, if any, of the use of these switches on utility system operations and on the appliances to which they are connected. These Reports shall indicate the impact of this program on the utility's load duration curve for the previous 12-month period. For each day of the previous year, these reports shall also indicate at what times, how often, and for how long the utility used remote load switches. The second of the two Progress Reports shall recommend to the Commission how the utility's peak load cycling program should be modified, for the purposes of systemwide implementation, in terms of hardware systems, alternative tariff schedules, the mix of appliances subject to this standard, the implementation schedule, long-term program goals, and any other appropriate considerations. The second Progress Report shall also analyze the anticipated impact of systemwide implementation of peak load cycling on the utility's resource plan.

(g) Executive Director's Report. Within two months of receipt of the utility's second Progress Report, the Executive Director shall submit to the Commission a Report on that utility's peak load cycling program, which contains the following information:

(1) His evaluation of the information contained in the utility's two Progress Reports, including the recommendations set forth in the second Progress Report; and

(2) His recommendations with respect to the expanded implementation or termination of remote load switching for each of the two kinds of appliances which are subject to this standard.

(h) Long Range Programs. Within two months after it receives the Executive Director's Report on a utility's peak load cycling program, the Commission shall hold a public hearing to review the utility's two Progress Reports and the Executive Director's Report. Following this hearing, the Commission shall undertake one or more of the following actions:

(1) Expand the level of implementation of remote load switching for one or both of the kinds of appliances subject to this standard to a level which the Commission determines to be feasible and cost-effective;

(2) Terminate the remote load switching program for one or both of these kinds of appliances; or

(3) Undertake such additional actions which the Commission determines to be necessary and practical to implement the utility's peak load cycling program.

(i) Compliance. A utility shall be in compliance with this standard if:

(1) The Commission has approved the utility's Peak Load Cycling Plan;

(2) The utility is conducting a peak load cycling program in conformance with the provisions of its approved Peak Load Cycling Plan and the provisions of subsection (d) above; and

(3) The utility submits all reports required by this section in a timely manner.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Section 25403.5, Public Resources Code.

§ 1623. Load Management Tariff Standard.

(a) This standard requires that a utility develop marginal cost rates, using a recommended methodology or the methodology approved by its rate-approving body, when it prepares rate applications for retail services, and that the utility submit such rates to its rate-approving body.

(b) Marginal Cost Methodologies and Rates. Within six months after the Marginal Cost Pricing Project Task Force (which is jointly sponsored by the CEC and CPUC under an agreement with the Federal Department of Energy) makes its final report available to the public, and the Commission approves it by resolution, a utility submitting a general rate filing to its rate-approving body shall include marginal cost based rates in such filing which have been developed by using at least one methodology recommended by the Task Force, except that if a utility's rate-approving body has approved a marginal cost methodology, a utility may substitute the approved methodology for one recommended by the Task Force.

If at any time subsequent to the Commission's approval of the Task Force report, the utility's rate-approving body approves a marginal cost methodology which is substantially different from any of the methodologies recommended by the Task Force, the utility shall so inform the Commission, and shall explain the nature of and the reasons for these differences.

In addition to marginal cost based rates which it develops using a methodology recommended by the Task Force report for that utility or approved by its rate-approving body, the utility may also submit marginal cost based rates which it develops using any alternative methodology that it deems appropriate.

The utility may also submit other rates or tariffs which it deems appropriate.

Nothing in this section shall prevent the Commission from recommending the approval of marginal cost methodologies different from those used by a utility to any rate-approving body.

(c) Public Information Program. As soon as a utility's rate-approving body has adopted a tariff in accordance with a recommended or approved marginal cost methodology, the utility shall conduct a public information program which shall inform the affected customers why marginal cost based tariffs are needed, exactly how they will be used and how these tariffs can save the customer money. (d) Compliance. A utility shall be in compliance with this standard if all of the utility's rate applications are prepared in accordance with the provisions of subsection (b) above, and the utility provides informational copies of its applications to the Commission.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Section 25403.5, Public Resources Code.

§ 1624. Swimming Pool Filter Pump Load Management Standard.

(a) Application. The provisions of this section are applicable to electric filter pumps which routinely circulate water through private residential inground or aboveground swimming pools within the utility's service area. It does not apply to pumps used to circulate swimming pool water heated by active solar collectors.

(b) Program. The utility shall undertake a program to encourage its customers to restrict the use of swimming pool filter pumps as follows:

(1) Off-Peak Hours. Customers should operate filter pumps during off-peak hours as determined by the utility for its service area. Customers should run their filter pumps outside of the suggested hours only if the noise from their pumps violates a local noise ordinance, or because their pumps cannot circulate enough water within the suggested hours to properly filter or heat the pool.

(2) Operating Time. Customers should restrict filter pump operation to only two hours daily in winter and four hours daily in summer. However, if the pool water does not remain clear or in proper chemical balance, the customer may increase filter operation time by successive half-hour periods until the water remains clear and properly balanced chemically.

(3) Time Clock. The utility shall encourage its customers to buy time clocks if they do not already have them. The utility may provide time clocks to those of its customers who do not already have them. The utility shall offer its assistance to any customer who seeks aid in setting time clocks.

(c) Program Goals. Within 12 months after the Commission approves a utility's Swimming Pool Filter Pump Plan and the utility's rate-approving body approves a method for recovering the costs of the program, the utility shall have contacted 100 percent of those identified customers to whom the standard applies.

(d) Swimming Pool Filter Pump Plan. No later than six months after this article becomes effective, the utility shall submit a Swimming Pool Filter Pump Plan. This plan shall indicate how the utility intends to contact, within 12 months after the Commission approves the plan and the rate-approving body approves the program-related expenditures, 100 percent of those identified customers to whom the standard applies and the measures to be undertaken for system wide implementation following the contact period. This plan shall, as a minimum, include the following elements of a filter pump program:

(1) Objectives -The plan shall describe, in detail, the utility's objectives in pursuing the swimming pool filter pump time clock reset program. It shall also include an assessment of the impact of the program on system reliability, need for new capacity, fuel efficiency, and overall costs.

(2) Organization -The plan shall describe how the utility will organize and manage the time clock reset program. It shall include organization charts, qualifications for each position and the reporting relationship of the effort to the President or General Manager of the utility. The plan shall describe how the utility intends to recruit and hire the personnel needed to staff the proposed organization.

(3) Schedule and Budget -The plan shall include a detailed schedule for each of the program elements. The schedule shall indicate each task required to complete each element, the level of effort assigned to each task, and the beginning and ending dates of each task. The plan shall include the utility's detailed budget for carrying out all elements of the time clock reset program. It shall display dollars budgeted over time, by task, for personnel, equipment, education and surveys.

(4) Customer Contact -The plan shall describe how the utility intends to identify those residences in its service area which have in-ground or above-ground pools subject to this standard. The plan shall also describe how the utility intends to contact 100 percent of its identified swimming pool customers, within 12 months after the Commission approves the plan and the utility's rate-approving body approves a method for recovering the costs of the program, in order to solicit their participation in the time clock reset program. In its initial contact with each customer, the utility will provide all pertinent information on the timing and duration of swimming pool filter pump use as well as the benefits of using an automatic time clock to run the pump. The plan shall show how the activities of this element are reasonably related to the program goal.

(5) Public Education -The plan shall describe how the utility expects to inform the public regarding the use of filter pumps and the cost-effectiveness of purchasing or resetting time clocks.

(6) Program Operations -The plan shall describe how the utility intends to cause time clocks to be reset, how resetting will be recorded, and how the utility will provide assistance to any customer who seeks aid in setting or resetting time clocks. If the utility plans personal visits, it shall describe what information will be obtained from each visit. The plan shall describe how the utility expects to determine and demonstrate the cost-effectiveness of purchasing time clocks by pool owners who do not have time clocks. In addition, the plan may describe how the utility will provide time clocks to those of its customers who do not already have them. The plan shall describe how the utility intends to respond to customer questions, problems, or complaints about the program.

(7) Program Evaluation and Reporting -The plan shall describe how the utility intends to conduct annual surveys which will enable the utility to determine when and for how long its customers actually use their swimming pool filter pumps. Surveys must use generally accepted and statistically valid survey methods. These surveys shall indicate the percentage of the utility's customers to whom the standard applies that are taking part in the filter pump program. The plan shall show how evaluations, including the program's impact on the load duration curve, will be made and the results fed back into each element to improve the program on a regular basis. The plan shall describe how the utility will report progress in implementing the time clock reset program to the Commission. It shall show how the Commission will be notified, in a timely

manner, of unexpected delays or difficulties. The plan shall include an outline of the reporting formats that the utility intends to use for annual reports.

(8) Other Information -The plan shall include any other information that the utility deems appropriate for Commission consideration in relation to the time clock reset program.

Review and approval of Swimming Pool Filter Pump Plans shall be carried out in accordance with the provisions of Section 1621(d).

As soon as the Commission has approved a utility's Swimming Pool Filter Pump Plan and the utility's rate-approving body has approved a method for recovering the cost of the program, the utility shall begin its swimming pool filter pump program.

(e) Progress Report. Within 15 months after commencing the program, the utility shall submit a Progress Report to the Commission. This Report shall describe how the utility has conducted its program of 100 percent customer contact. This Report shall also specify the level of voluntary customer participation which the utility has been able to achieve as a result of this program, the extent to which the utility has conducted follow-up contacts with its customers, and shall provide any other relevant information which the utility has obtained as a result of its contact program.

In addition, the Report shall recommend whether this program should be continued or whether it should be discontinued. Within 60 days after its receipt of a utility's Progress Report, the Commission shall hold a public hearing to determine whether the program should be continued or whether it should be discontinued.

(f) Annual Reports. If the Commission determines that the program should be continued, the utility shall submit a report to the Executive Director within 12 months after such determination, and annually thereafter. These Reports shall describe the utility's ongoing program efforts, shall provide the results of annual surveys which will enable the utility to determine when and for how long its customers actually use their swimming pool filter pumps, and shall indicate the impact of this program on the previous year's load duration curve.

(g) Compliance. The utility shall be in compliance with this standard if:

(1) The utility is carrying out its program in accordance with the provisions of an approved Swimming Pool Filter Pump Plan;

(2) Within 12 months after the Commission has approved the utility's Swimming Pool Filter Pump Plan and the rate-approving body has approved a method for recovering the costs of the program, the utility shall have contacted 100 percent of those identified customers to whom the standard applies; and

(3) The utility submits all required reports on time.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Section 24503.5, Public Resources Code.

§ 1625. Non-Residential Load Management Standard.

(a) Program Goals. The utility's Nonresidential Load Management program shall be designed to achieve, by 1985, a twenty (20) percent improvement in energy efficiency in the following segments of the nonresidential sector and in the following manner:

(1) Large Commercial: The utility shall make its best good faith efforts to conduct energy conservation surveys of 100 percent of its large commercial customers within 36 months after the Commission has approved the utility's Plan for Large Commercial Customers and the utility's rate-approving body has approved a method for recovering the costs of the program.

(2) Small Commercial: Within 24 months after the Commission approves a utility's Plan for Small Commercial Customers, the utility shall have made its best good faith efforts to contact 100 percent of its small commercial customers individually or through trade and community organizations. The utility shall not be required to conduct energy conservation surveys of all such customers.

(b) Plans for Commercial Customers. No later than one year after this standard becomes effective, the utility shall submit an Energy Conservation Plan for Small Commercial Customers, and, no later than six months after this standard becomes effective, the utility shall submit an Energy Conservation Plan for Large Commercial Customers. In these plans, the utility shall describe in detail how it intends to implement commercial load management programs, shall provide a schedule for implementation of these programs, and shall indicate how it intends to report on the success of these programs. Review and approval of these Plans shall be carried out in accordance with the provisions of Section 1621(d). The utility shall implement its Plans in accordance with the schedules contained in the Plans, as soon as the Commission has approved the plans and the rate-approving body has approved a method for recovering the costs of these programs.

(1) Plan for Large Commercial Customers. With the exception of paragraphs (iv), (v) and (vi), which are optional, the plan shall contain all of the elements described below. It shall also contain the service area inventory, the service area energy index and a priority sequence, or it shall contain an alternative method for determining the order in which the utility will conduct Energy Conservation Surveys. Any such alternative method shall be described in detail in the Plan and shall indicate how either the least energy-efficient customers or the customers with the greatest energy-saving potential are surveyed first.

(i) Objectives - The plan shall describe, in detail, the utility's commercial load management program. It shall also include an assessment of the impact of the program on system reliability, need for new capacity, fuel efficiency, and overall costs.

(ii) Organization - The plan shall describe how the utility will organize and manage the commercial load management program. It shall include organization charts, qualifications for each position and the reporting relationship of the effort to the President or General Manager of the utility. The plan shall describe how the utility intends to recruit and hire the personnel needed to staff the proposed organization, and how the utility intends to coordinate its survey work with outside energy management consultants.

(iii) Schedule and Budget - The plan shall include a detailed schedule for each of the program elements. The schedule shall indicate each task required to complete each element, the level of effort assigned to each task, and the beginning and ending dates of each task. The plan shall include the utility's detailed budget for carrying out all elements of the commercial load

management program. It shall display dollars budgeted over time, by task, for personnel, equipment, and outside contractors.

(iv) Service Area Inventory - A service area inventory shall provide data on conditioned space, total energy use for all forms of energy supplied by the utility, building type, and SIC code. For each building, the inventory shall identify the area, in square feet, of conditioned space. For each building, the inventory shall identify annual total energy use, in British thermal units (at gross thermal value) per square foot of conditioned space, for all forms of energy which the utility provides the customer. The inventory shall identify each building according to the appropriate Standard Industrial Classification Groups and by building type.

(v) Service Area Energy Index - Using the data obtained in the service area inventory, the utility will calculate the service area energy index for each Standard Industrial Classification Group and building type. This index is the median annual total energy use for buildings of a given Standard Industrial Classification Group or building type.

(vi) Priority Sequence - The utility shall determine the order in which it will conduct Energy Conservation Surveys. It shall utilize a method that considers how efficiently a customer uses energy, or it shall multiply each large commercial customer's conditioned space (in square feet) by the number of Btu's per square foot (if any) by which the customer exceeds his service area energy index. The utility shall then rank, in descending order of excess, those customers which exceed the index. It shall rank customers whose energy use does not exceed the index in descending order of their gross energy use. This ranking establishes the priority sequence.

(vii) Public Education - The plan shall describe how the utility expects to inform commercial customers about the commercial load management program.

(viii) Program Operations - The plan shall describe how the utility intends to carry out the day-to-day operations of the commercial program in accordance with (d) and (e) below. It shall describe how the utility intends to make arrangements with commercial customers to make surveys.

(ix) Program Evaluation and Reporting - The plan shall describe how the utility intends to evaluate, on an ongoing basis, the quality and performance of each element of the commercial load management program. It shall describe how evaluations will be made and the results fed back into each element to improve the program on a regular basis. The plan shall also describe how the utility intends to report progress on implementing the commercial load management program to the Commission. It shall indicate how the Commission will be notified, in a timely manner, of unexpected delays or difficulties. The plan shall include an outline of the reporting formats that the utility intends to use for its annual reports.

(x) Other Information -The plan shall include any other information that the utility deems appropriate for Commission consideration in relation to the commercial load management program.

(2) Plan for Small Commercial Customers. The plan shall contain elements (i), (ii), (iii), (vii), (viii), (ix), and (x) referred to in Subsection (b)(1) above.

(c) Plan for Industrial Customers. The utility may, at its option, expand its commercial load management program to include its industrial customers. If it chooses to do this, the utility shall submit a Plan for Industrial Customers. This plan shall contain the utility's assessment of the potential energy and capacity savings in the industrial sector of its service area on an industry-

by-industry basis. This plan shall also describe the steps which the utility will take, by means of surveys or other programs, to achieve these savings, and the time frame in which these steps would be carried out. To the extent applicable, this plan shall contain information similar to that required by elements (i), (ii), (iii), (vii), (viii), (ix), and (x) referred to in subsection (b)(1) above. The Commission shall review any Plan for Industrial Customers to determine whether the proposals set forth in that plan will be cost-effective in achieving the estimated energy and/or capacity savings. If the Commission determines that the plan would be cost-effective to implement, it shall approve the plan.

(d) Energy Conservation Surveys for Large Commercial Customers. The utility or its contractor shall conduct Energy Conservation Surveys for large commercial customers cooperating in the program in descending order of priority sequence. The utility shall begin the surveys as soon as the Commission has approved its Plan for such customers and the utility's rate-approving body has approved a method for recovering the costs of the program. It shall complete these surveys within 36 months after it begins the surveys.

Each Survey shall review the end-uses of electricity at a specific site. It shall identify ways by which the customer can reduce both his total electricity use and his electricity demand during the peak period. Each survey shall as a minimum consider lighting, hot water, heating-ventilating, and cooling-ventilating.

(e) Survey Report. Within 30 days after it has completed an Energy Conservation Survey, the utility or its contractor shall provide the customer with a written report.

This report shall recommend ways in which the customer can shift loads to non-peak hours and save energy, and shall estimate how much money the customer would save should he implement the recommendations. The report shall indicate how the customer might take part in existing or potential utility-conducted load cycling programs, and how he may use solar energy techniques, cogeneration, or other load shifting or load diminishing measures. The report shall also show where further study by other experts might help him save still more energy and money.

The utility will retain a copy of the report, related papers and forms. It will keep these records available for review by the Executive Director, pursuant to Section 1621(e). The Executive Director shall conduct an annual review of quality of utility Surveys.

(f) Resurveys. Each year, the utility or its contractor shall recalculate annual total energy use for any large commercial customer surveyed during the previous year. It shall reenter into its priority sequence those customers which still exceed their service area energy index or it shall determine the order for resurveying its customers in accordance with an approved alternative method. In proper priority sequence, it shall resurvey such customers.

(g) Annual Report. On March 31 of each year, the utility shall submit to the Executive Director its annual report on Energy Conservation Surveys for customers affected by this section covering the previous calendar year. The Executive Director shall prescribe the format for these reports. In its first annual report, the utility shall describe how it initiated the surveys.

In each subsequent report, the utility shall provide the service area inventory or an update thereof, and the service area energy index and the priority sequence or their equivalent based on an approved alternative method. In addition, the report shall include, but need not be limited to, the following:

Number of customers surveyed;

Total energy used by the surveyed customers by Standard Industrial Classification Group and by building type in the 12 months covered by the annual report and 12 months prior to the period of the annual report;

Total kilowatt-hour, kilowatt demand, and coincident kilowatt demand by Standard Industrial Classification Group and by building type of the surveyed customers in the 12 months covered by the annual report and 12 months prior to the period of the annual report;

Net conditioned space of the surveyed customers at the time of the survey and 12 months prior to the survey; and

Expense data for all personnel, overhead, equipment and other items attributed to the survey program.

Each annual report shall describe the status of the utility's program for small commercial customers, and of any optional approved program for industrial customers.

Each annual report shall also indicate the impact of each program covered by this section on the utility's load duration curve for the previous 12 months.

(h) Compliance. The utility will be in compliance with this standard if:

(1) It submits all plans and reports required by this section in a timely manner;

(2) Within 36 months after the Commission has approved the utility's Plan for Large Commercial Customers and the rate-approving body has approved a method for recovering the costs of the program, the utility shall have made its best good faith efforts to conduct energy conservation surveys of 100 percent of its large commercial customers; and

(3) Within 24 months after the Commission has approved the utility's Plan for Small Commercial Customers and the rate-approving body has approved a method for recovering the costs of the program, the utility shall have made its best good faith efforts to contact 100 percent of its small commercial customers individually or through trade and community organizations.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 25403.5 and 25406, Public Resources Code.

Article 6. Energy Conservation Assistance Act Regulations

§ 1650. Purpose.

These regulations specify the eligibility criteria and allocation procedures to be followed by the Energy Commission in implementing the Energy Conservation Assistance Act (ECAA), Public Resources Code Sections 25410-25421.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25419, Public Resources Code.

§ 1651. Definitions.

As used in this article:

(a) “Certified energy auditor” is a person who has successfully completed an energy auditor training course cosponsored by the Commission and the California Community Colleges, or who is otherwise certified by the Commission. The Commission shall maintain a current list of such auditors. All energy audits for this program shall be conducted by certified energy auditors.

(b) “Construction completion” is the date of issuance of an occupancy permit.

(c) “ECAA” is the Energy Conservation Assistance Act, Public Resources Code Sections 25410-25421.

(d) “Energy cost savings” is the difference between the amount of a loan recipient's utility bill after an energy conservation project is implemented and the amount of the utility bill had the project not been implemented.

(e) “Energy Use Index” is the value obtained by dividing a building's total annual energy use in Btus by the gross square feet of the building.

(f) “Committee” is the committee of the Commission, designated pursuant to Section 25211 of the Public Resources Code, which shall review all loan applications submitted under the ECAA.

(g) “Gross square feet” is the sum of all heated and cooled floor areas enclosed in a building, calculated from the outside dimensions, or from the centerline of common walls.

(h) “Institutional Conservation Program” is the Energy Conservation Measures and Energy Audits Grant Program for Schools and Hospitals and Buildings Owned by Units of Local Government and Public Care Institutions, administered by the Department of Energy pursuant to 42 U.S.C. Sections 6371-6372i.

(i) “Long-term care institution” is a facility (including a skilled nursing or intermediate care facility) providing in-patient care for convalescent or chronic disease patients who require skilled nursing or intermediate care and related medical services:

(1) which is a hospital (other than a hospital primarily for the care and treatment of mentally ill or tuberculous patients) or is operated in connection with a hospital; or

(2) in which such care and medical services are prescribed by, or are performed under the general direction of, persons licensed to practice medicine or surgery in the state.

(j) “Rehabilitation institution” is a facility which is operated for the primary purpose of assisting in the rehabilitation of disabled persons through an integrated program of:

(1) medical evaluation and services; and

(2) psychological, social, or vocational evaluation and services, undercompetent professional supervision, and in the case of which the major portion of the required evaluation and services is furnished within the facility; and either the facility is operated in connection with

a hospital, or all medical and related health services are prescribed by, or are under the general direction of, persons licensed to practice medicine or surgery in the state.

(k) "Residential child care center" is an institution (other than a foster home) operated by a public or nonprofit institution, which is primarily intended to provide full-time residential care with an average length of stay of at least 30 days for at least 10 minor persons who are in the care of such institution as a result of a finding of abandonment or neglect or of being persons in need of treatment or supervision.

(l) "Simple payback" is the time it takes to recover the cost of an energy conservation project by the resulting energy cost savings. This payback is calculated by dividing the amount of the loan including the interest and other costs associated with the loan, by the estimated annual energy cost savings based upon utility rates in effect at the time of application.

(m) "Streetlight conversion project" is the whole of a proposal to convert a streetlighting system or portion thereof, as provided for by Section 25412.5 of the Public Resources Code.

(n) "Technical audit" is a "technical assistance program," as used in the ECAA.

(o) "Technical auditor" is a person eligible to perform technical audits fo this program. The technical auditor must:

(1) Be an engineer registered in the State of California;

(2) Be free from any financial interest which may conflict with the proper performance of the auditor's duties. This qualification includes, but is not limited to, the requirement that the auditor not have a financial interest in or be employed by a vendor or manufacturer of products which a technical audit could recommend.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Sections 25211, 25411(b), (m)(1), (m)(2), (m)(4), (r), 25413 and 25419, Public Resources Code.

§ 1652. Loan Cycles.

(a) Scheduling. A loan cycle shall take place when the Commission determines that there are sufficient funds in the Energy Conservation Assistance Account. The Commission shall provide potential applicants with a minimum of 90 days notice to submit applications, unless the purpose of the cycle is to make matching loan monies available to eligible institutions which have received Institutional Conservation Program energy conservation measure grants. In such case, the Commission shall give the maximum notice possible under the Institutional Conservation Program schedule.

(b) Loan Monies Available. When the Commission gives notice of a loan cycle it shall also announce the types of loans for which it will be accepting applications, loan minimums and maximums, cents per square foot limits for energy audit and energy audit/technical audit loans, and the total loan monies expected to be available for the cycle.

(c) Loan Approval. The committee shall review all loan applications and shall recommend to the Commission applications for approval.

(d) Loan Disapproval. If the committee proposes to recommend disapproval of any loan application, the committee shall advise the applicant in writing of the specific reasons why the application was disapproved.

(e) Appeals. An applicant may appeal a proposed disapproval by filing a petition for appeal with the Commission Docket Unit within 15 days of receiving notification of the proposed disapproval. All appeals shall explain the grounds therefor. All appellants shall be notified of the Commission business meeting at which the Commission shall consider the committee's recommendations for loan approvals and shall have an opportunity to make oral comments at that meeting.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Sections 25214 and 25419, Public Resources Code.

§ 1653. Energy Audit and Energy Audit/Technical Audit Loans.

(a) Application Requirements. Energy audit and energy audit/technical audit loan applications shall contain:

(1) A description of the building(s) to be audited, including the gross square feet and date of construction completion for each;

(2) A budget summary for the project(s), including funds budgeted for materials and contracts (including engineering consultant fees);

(3) A proposed project schedule, including dates for project commencement and completion;

(4) Copies of utility bills for the previous twelve consecutive months, or data supplied by the utility(ies) summarizing this information.

(b) Scoring of Applications. Loan applications with the highest Energy Use Index shall be given the highest ranking. Such ranking shall not include any project deemed to be unreasonable because of its cost, economic viability, or technical feasibility.

(c) Audit Report. Within 90 days of the conclusion of an energy audit or energy audit/technical audit financed in whole or in part by ECAA funds, the loan recipient shall submit to the Commission an energy or technical audit report for each building audited with ECAA funds. Such report(s) shall contain the information required by federal law for the Institutional Conservation Program, and an estimate of the energy and cost savings the recommended changes in maintenance and operating procedures will achieve.

(d) Implementation. Before receiving a loan for an energy audit or energy audit/technical audit, applicants shall promise in good faith to implement all feasible changes to existing maintenance and operating procedures as set forth in the energy audit, so that the loan will be repaid out of energy cost savings.

(e) Repayment. Energy audit and energy audit/technical audit loans shall be repaid within two years, unless the recipient can demonstrate to the Commission that it will not have recovered the amount of the loan through energy cost savings within that time. In such case, the repayment period shall be extended as necessary so that the recipient can repay the loan out of energy cost savings.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Sections 25412, 25413, 25417(a) and 25419, Public Resources Code.

§ 1654. Energy Conservation Measure Loans.

(a) Application Requirements. An application for an energy conservation measure loan shall contain:

(1) An energy audit and technical audit report for each building in the application, except that an energy audit report shall not be required for a loan not involving a building. If either report has been previously submitted, the applicant need only update relevant information;

(2) A budget for the project, including funds budgeted for

(A) labor;

(B) engineering;

(C) construction;

(D) material;

(E) equipment;

(F) inspection;

(G) demolition (if applicable); and

(H) removal (if applicable); less equipment salvage value (if applicable).

(3) A proposed project schedule, including dates for project commencement and completion.

(4) A statement that all energy conserving changes to maintenance and operating procedures which are identified in the energy audit or technical audit reports have been or will be implemented by a specified date, or a written justification for not implementing any procedures so identified;

(5) A statement that the applicant has no intention to close or otherwise dispose of the building within the simple payback of any energy conservation measure for which an ECAA loan is sought.

(b) Scoring of Applications. Energy conservation measure loan applications with the lowest simple paybacks shall be given the highest ranking. Such ranking shall not include any project deemed to be unreasonable because of its cost, economic viability, or technical feasibility.

(c) Central Plants. If an energy conservation measure loan is sought only for a building which is a central plant, separate energy audits must be done on the central plant and each building it serves, but the technical audit need only be conducted for the central plant building.

(d) Preferred Energy Conservation Measures. At the commencement of a loan cycle, the Commission may designate specific energy conservation measures for which, because of their proven energy savings, applicants need only submit an energy audit report for the building(s) involved and a breakdown of the estimated costs and savings for the proposed measures.

(e) Loans to Supplement Project Funding. The Commission may make energy conservation measure loan monies available to eligible institutions for the purpose of supplementing funds secured from other public and private sources.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Sections 25412, 25413 and 25419, Public Resources Code.

§ 1655. Streetlight Conversion Project Loans.

(a) Application Requirements. An application for a streetlight conversion loan shall contain the information necessary to demonstrate compliance with the criteria set forth in Public Resources Code Section 25412.5, including:

(1) Whether the applicant purchases its electricity from a utility or operates its own electrical system;

(2) The number, type, wattage, and ballast wattage, if applicable, of all luminaires proposed for conversion;

(3) Estimated conversion costs for each luminaire;

(4) Existing annual operating hours, kilowatt hours, and operating costs for each;

(5) Estimated annual operating hours, kilowatt hours, and operating costs for each, after conversion;

(6) The simple payback of the project;

(7) A budget for the project, including funds budgeted for

(A) labor;

(B) engineering;

(C) construction;

(D) material;

(E) equipment;

(F) inspection; and

(G) removal (if applicable); less equipment salvage value (if applicable).

(8) A proposed schedule including dates of project commencement and completion.

(b) Scoring of Applications. Loan applications with the lowest simple paybacks shall be given the highest ranking. Such ranking shall not include any project deemed to be unreasonable because of its cost, economic viability, or technical feasibility.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Sections 25412, 25412.5, 25413 and 25419, Public Resources Code.

Article 7. Regulations for the Geothermal Grant and Loan Program

§ 1660. Purpose.

This article specifies the criteria and procedures for the State Energy Resources Conservation and Development *Commission's ("Energy Commission's") Geothermal Grant and Loan Program.*

Note: Authority cited: Sections 3822, 25213 and 25218(e), Public Resources Code. Reference: Sections 3820, 3822, 3823 and 25216(c), Public Resources Code.

§ 1661. Definitions.

In this article:

(a) "Applicant" means (1) a local jurisdiction as defined in Public Resources Code Section 3807 that has geothermal resources or is impacted by geothermal development; or (2) a private entity as defined in Public Resources Code Section 3809.

(b) "GRDA" means the Geothermal Resources Development Account established by Public Resources Code Section 3820 that provides funding for the Energy Commission's Geothermal Grant and Loan Program. The Energy Commission's Geothermal Grant and Loan Program may also be called the "GRDA Program" after its funding source.

(c) "Resource development project" means a project that assesses, develops, or converts a geothermal resource for direct use or electrical generation.

(d) "Project" means an activity designed to carry out one or more of the purposes identified by Public Resources Code section 3823.

Note: Authority cited: Sections 3822, 25213 and 25218(e), Public Resources Code. Reference: Sections 3807, 3808, 3809, 3823 and 25216(c), Public Resources Code.

§ 1662. Types of Financial Assistance.

The Energy Commission shall distribute an award as a grant or a loan.

Note: Authority cited: Sections 3822, 25213 and 25218(e), Public Resources Code. Reference: Sections 3822 and 25216(c), Public Resources Code.

§ 1663. Terms for Loan Payment.

In approving a loan, the Enemy Commission shall specify the interest rate, consistent with subdivision (f) of section 3822 of the Public Resources Code, and shall specify the repayment term, the principal, and the number of installments.

Note: Authority cited: Sections 3822, 25213 and 25218(e), Public Resources Code. Reference: Sections 3822 and 25216(c), Public Resources Code.

§ 1664. Notice of Availability of Funds.

The Energy Commission shall announce the availability of funds for Geothermal Grant and Loan Program awards by posting a notice to the Energy Commission's website, mailing the notice to all persons who have requested notices about the Geothermal Grant and Loan Program by mail, and electronically sending the notice to all persons who have consented to receive notices about the Geothermal Grant and Loan Program by electronic service.

Note: Authority cited: Sections 3822, 25213 and 25218(e), Public Resources Code. Reference: Sections 25216(c), Public Resources Code.

§ 1665. Application and Award Procedures.

(a) Application Requirements. An applicant shall submit an application for each project proposed under this article. The application shall contain:

(1) a cover page with the project name; the applicant's name, mailing address, telephone number, and related Internet websites, if any; the names, mailing addresses, telephone numbers, and e-mail addresses of the project director, the budget officer, and the project manager; and an abstract of the project.

(2) a budget, including, but not limited to, estimates for labor costs, operating expenses, professional and consultant services, equipment, materials, and any construction expenses.

(3) a project narrative describing:

(A) the purpose or objective of the proposed project;

(B) the need for the project;

(C) related activities undertaken;

(D) benefits to the local community;

(E) other funding sources investigated or secured for the project; and

(F) anticipated effects of the project on geothermal energy development in the area; and

(G) the products that will result from the project.

(4) a detailed work statement listing and describing the tasks to be undertaken and all documents and products that will be submitted to the Energy Commission.

(5) a schedule showing personnel requirements and a timeline for completing the project tasks.

(6) a detailed description of the purpose for and benefits of each product.

(7) for local jurisdiction applicants: a resolution from the local jurisdiction's governing body authorizing submittal of the application.

(8) for private entity applicants: a discussion of how the applicant, if awarded a grant or loan, will obtain approval for the grant or loan from a representative of the city, county, or Indian reservation where the project is to be located, in accordance with Public Resources Code section 3822(g)(3).

(9) analyses, assessments, or other documents sufficient to support an Energy Commission determination that a decision approving an award for the project is in compliance with the California Environmental Quality Act; and

(10) for resource development projects that will directly result in revenue or energy savings, a feasibility study. The study shall include:

(A) a summary of conclusions;

(B) a description of the geothermal project;

(C) a discussion of the quality and availability of the geothermal resource, based on, but not limited to, technical evaluations such as water samplings, temperature and other logs, geophysical surveys, or flow tests;

(D) a schematic drawing including, but not limited to, well locations, distribution piping, structures, equipment, and controls;

(E) a table including, but not limited to a description of any new equipment, itemized capital costs in current dollars, annual operating costs for the new geothermal system, and annual energy savings in current dollars and energy units; and a cash flow analysis table including, but not limited to, year-by-year estimates in current dollars of the energy cost of any existing nongeothermal systems, the energy cost associated with the proposed geothermal system, operation and maintenance costs associated with the proposed geothermal system, net energy savings, debt service, and net cash flow.

(b) Application Review and Scoring. Energy Commission Staff shall evaluate and score all applications using the criteria set forth in Appendix A. Staff may also invite other governmental entities to participate in scoring. After scoring is complete, Staff shall recommend projects for funding based on application scores, notify applicants of projects recommended for funding in a published notice, and submit recommended awards to the Energy Commission for approval.

(c) Declined Awards. If an applicant declines all or part of an award, the Energy Commission may use the amount declined to fund another application or to supplement other awards approved during the same funding cycle.

(d) Requests for Evaluation. After the Energy Commission notifies applicants of proposed awards, Energy Commission Staff shall make its evaluation and the score for an application available to that applicant upon request.

(e) After the Energy Commission approves an award to a private entity and before the Energy Commission disburses funds for the award, the private entity shall, pursuant to Public Resources Code section 3822(g)(3), submit to the Energy Commission evidence that a representative of the city, county, or Indian reservation within which the project is to be located has approved the award. The Energy Commission will accept a written document, including an e-mail, indicating that the city, county, or Indian reservation has approved the award for the proposed project.

Note: Authority cited: Sections 3822, 25213 and 25218(e). Public Resources Code. Reference: Sections 3807, 3822, 3823 and 25216(c), Public Resources Code.

Appendix A

Application Evaluation Criteria

a. Economic and Employment Benefit ..... (10 points)
b. Demonstrated Need or Value ..... (20 points)
c. Payback and Cost Effectiveness ..... (10 points)
d. Proven Extent of the Resource ..... (15 points)
e. Likelihood of Success ..... (15 points)
f. Match Contribution .....(5 points)
g. Contribution to Development of California's Geothermal Energy ..... (15 points)
h. Public Involvement ..... (10 points)

Article 8. California Home Energy Rating System Program

§ 1670. Scope.

These regulations establish the California Home Energy Rating System (herein referred to as HERS) Program pursuant to Public Resources Code Section 25942, including procedures for the training and certification of Raters, and a certification program for home energy rating system organizations (herein referred to as Providers) and for home energy rating services (herein referred to as Rating Systems). The HERS Technical Manual, Publication CEC-400-2008-012, December 2008, which is defined below, shall be incorporated by reference.

The California HERS Program regulations apply to the use of HERS Raters to provide two key services:

(i) Field verification and diagnostic testing as required by Title 24, Part 6.

(ii) Whole-House Home Energy Ratings of newly constructed and existing homes.

Note: In the course of providing a California Whole-House Home Energy Rating, a home energy audit is performed. The California HERS Program includes the case where the energy audit portion of the rating process is completed but a California Whole-House Home Energy Rating score is not designated. When describing that case, these regulations refer to that portion of the rating process as a California Home Energy Audit.

Note: Authority cited: Sections 25213 and 25942, Public Resources Code. Reference: Section 25942, Public Resources Code.

§ 1671. Definitions.

For the purposes of these regulations, the following definitions shall apply:

ACM Manual means the Low-Rise Residential Alternative Calculation Method Approval Manual (Energy Commission Publication CEC-400-2008-002) adopted in Section 10-109(b)(2) of Title 24, Part 1 of the California Code of Regulations.

Building Performance Contractor means a contractor who is certified by a Provider to evaluate the comfort and safety aspects of a home in conjunction with its energy features and its energy consumption in a holistic manner to determine recommendations for the best overall performance of a home for the occupant or owner, and is licensed by the California Contractors State License Board as a current and active class B general building contractor. Either the qualifying individual for the class B license or the employee who is directly responsible to the qualifying individual for the class B license for rating services, audit services, and related construction work is certified as a California Whole-House Home Energy Rater by an Energy Commission-approved Building Performance Contractor program as specified in Section 1674(e).

California Field Verification and Diagnostic Testing Rater means a Rater who has been trained, tested, and certified by a Provider to perform field verification and diagnostic testing of newly constructed homes or alterations to existing homes to verify compliance with the requirements of Title 24, Part 6.

California Home Energy Analyst means a person who works under the direct supervision of a California Whole-House Home Energy Rater and has been trained, tested, and certified by a Provider in accordance with the requirements of Section 1673(a) to perform analysis for a Whole-House Home Energy Rating using an Energy Commission-approved HERS rating software program.

California Home Energy Audit means a process to determine the energy savings and cost-effectiveness of specific measures together with an evaluation of the energy uses listed in Section 1672(d) and a report to present the information used to evaluate the measures and make recommendations for the inclusion of such measures into the home. An audit need not include a Whole-House Home Energy Rating score.

California Home Energy Auditor means a person who has been trained, tested, and certified by a Provider as a California Whole-House Home Energy Rater to provide the information for a California Home Energy Audit.

California Home Energy Inspector means a home inspector who has also been trained, tested, and certified by a Provider and who works under the direct supervision of a California Whole-House Home Energy Rater to gather the data specified in the HERS Technical Manual to enable the development of a California Whole-House Home Energy Rating.

California Whole-House Home Energy Rater means a person who has been trained, tested, and certified by a Provider to properly gather information on the energy consuming features of a home, perform diagnostic testing at the home, evaluate the validity of that information, simulate and perform analysis for a California Whole-House Home Energy Rating or a California Home Energy Audit using an Energy Commission-approved HERS rating software program to estimate the energy consumption of a home using the information gathered on site, and complete all of the cost-effectiveness evaluations described in the HERS Technical Manual.

California Whole-House Home Energy Rating means a process to determine a California Whole-House Home Energy Rating score representing the relative energy efficiency of a newly constructed or existing residential building as compared to the Reference Home.

Certified, as to a Provider and Rating System, means having successfully completed the certification requirements as specified by Section 1674.

Energy Commission means the State of California Energy Resources Conservation and Development Commission, commonly known as the California Energy Commission.

Energy-Rated Home means a newly constructed or existing residential building that has an energy rating pursuant to these regulations.

Executive Director means the Executive Director of the Energy Commission.

Financial Interest means an ownership interest, debt agreement, or employer/employee relationship. Financial interest does not include ownership of less than five percent of the outstanding equity securities of a publicly traded corporation.

HERS Technical Manual or HTM means the HERS Technical Manual, Energy Commission Publication CEC-400-2008-012 (May 2009), and is incorporated by reference.

Independent Entity means having no financial interest in, and not advocating or recommending the use of any product or service as a means of gaining increased business with, firms or persons specified in Section 1673(j).

Note: The definitions of “independent entity” and “financial interest,” together with Section 1673(j), prohibit conflicts of interest between Providers and Raters, or between Providers/Raters and builders/subcontractors.

Net Zero Energy Home means a home that has a net annual Time Dependent Valued (TDV) Energy consumption of zero, accounting for both energy consumption and the use of on-site renewable energy production.

Provider means an organization that administers a home energy rating system in compliance with these regulations (referred to as a “home energy rating service organization” in Section 25942 of the Public Resources Code).

Rater means a person who has been trained, tested, and certified by a Provider to perform one or more of the functions or procedures used to develop a California Whole-House Home Energy Rating, a California Home Energy Audit, or the field verification and diagnostic testing required for demonstrating compliance with the Title 24, Part 6, Building Energy Efficiency Standards, and who is listed on a Provider's registry in compliance with Section 1673(d).

Rating means a California Whole-House Home Energy Rating, a California Home Energy Audit, or the field verification and diagnostic testing required for verifying compliance with the Title 24, Part 6, Building Energy Efficiency Standards, as specified by these regulations.

Rating System means the materials, analytical tools, diagnostic tools and procedures to produce home energy ratings, and provide home energy rating and field verification and diagnostic testing services (referred to as “home energy rating services” in Section 25942 of the Public Resources Code).

Reference Home means a low-rise residential building similar to the rated house, but for which the energy performance characteristics of each component exactly meet the reference house specifications defined in the HERS Technical Manual.

Service Water Heating means service water heating as defined in Section 101(b) of Title 24, Part 6 of the California Code of Regulations.

Time Dependent Valued (TDV) Energy means the time varying energy used by the building to determine the home energy rating pursuant to these regulations. TDV Energy accounts for the energy used at the building site and consumed in producing and delivering energy to a site, including, but not limited to, power generation, and transmission and distribution losses.

Note: Authority cited: Sections 25213 and 25942, Public Resources Code. Reference: Section 25942, Public Resources Code.

§ 1672. Requirements for Rating Systems.

(a) California Whole-House Home Energy Rating or California Home Energy Audit. A California Whole-House Home Energy Rating or a California Home Energy Audit shall be completed for a home only if the rating or the audit is completed as specified by these regulations and the HERS Technical Manual.

(b) Data Collection.

(1) For ratings of existing homes that produce a California Whole-House Home Energy Rating or a California Home Energy Audit, each rating shall be based on a site inspection of the home that includes data collection and diagnostic testing as specified by the Rating System in conformance with these regulations and the HERS Technical Manual. Each Rating System shall have documented procedures for site inspection and diagnostic testing of Energy-Rated Homes.

(A) The data collection shall be completed by a California Whole-House Home Energy Rater or by a California Home Energy Inspector directly supervised by a California Whole-House Home Energy Rater.

(B) The types and the details of data pursuant to each level of Rater certification shall be collected as specified in the HERS Technical Manual.

(C) The minimum level of data collection for a California Whole-House Home Energy Rating or a California Home Energy Audit shall meet the specifications in the HERS Technical Manual.

(2) For ratings of newly constructed homes that produce a California Whole-House Home Energy Rating, each rating shall be based on data gathered from construction documents as specified in the procedures outlined in the HERS Technical Manual and verified or tested on-site by a California Whole-House Home Energy Rater. California Whole-House Home Energy Ratings may be produced based on sampling of one house out of a group of seven as long as all of the houses in the group have the same energy efficiency and on-site generation measures. These ratings may be produced using the multiple orientation approach specified in the Title 24, Part 6, Building Energy Efficiency Standards. Procedures for initial testing, sampling, resampling, and corrective action specified in the Residential Appendices to Title 24, Part 6, shall be followed.

(3) For ratings of newly constructed homes to establish compliance with Title 24, Part 6, through field verification and diagnostic testing, data shall be collected or specified by the Residential Appendices to Title 24, Part 6. A Rater who collects such data and performs such diagnostic tests shall be certified by the Provider as a California Field Verification and Diagnostic Testing Rater.

(c) Data Analysis Requirements. The analysis to complete a California Whole-House Home Energy Rating or a California Home Energy Audit shall be conducted by either a California Whole-House Home Energy Rater or a California Home Energy Analyst under the direct supervision of a California Whole-House Home Energy Rater.

(d) Energy Uses Rated. Each Rating System shall rate the total combined energy efficiency of the following energy uses of each home rated:

(1) Space heating.

(2) Space cooling.

(3) Service hot water.

(4) Lighting in conditioned space.

(5) Exterior lighting mounted on buildings or lighting in an unconditioned garage.

(6) Electric appliances.

(7) Gas appliances.

(8) Other interior electric and natural gas uses specified in the HERS Technical Manual.

(e) On-site Renewable Generation. If a home has on-site renewable generation whose energy production is modeled as specified in the HERS Technical Manual, two ratings shall be determined, one that rates the house with the on-site generation included in the energy calculations and one that rates the home without considering the on-site generation.

(f) Rating Scale. Each Rating System shall determine a California Whole-House Home Energy Rating score based on the annual TDV Energy of a home on a linear scale where 0 (zero) represents a Net Zero Energy Home and 100 represents the Reference Home. An Energy-Rated Home that uses more energy than the Reference Home shall have a rating of greater than 100. The rating shall be for the combined total of the energy uses specified in Section 1672(d).

(g) Method of Calculating TDV Energy. An hourly energy simulation program approved by the Energy Commission shall be used to calculate the TDV Energy of the Energy-Rated Home and the Reference Home for the purpose of calculating the rating. The method shall use standard weather files for the California climate zones and other modeling rules, procedures, and assumptions as specified in the HERS Technical Manual.

(h) Utility Bill Analysis. Every California Whole-House Home Energy Rating or California Home Energy Audit, where utility bills are available for a period of at least twelve months, shall include a utility bill analysis as specified in the HERS Technical Manual.

(i) Recommendations for Energy Efficiency Improvements. Every California Whole-House Home Energy Rating or California Home Energy Audit shall include a list of cost-effective improvements to the energy efficiency of the home as specified in the HERS Technical Manual.

(j) Greenhouse Gas Emissions. Each California Whole-House Home Energy Rating or California Home Energy Audit shall include an estimate of the carbon dioxide emissions attributable to the projected energy use of a home as specified in the HERS Technical Manual.

(k) HERS Report. The information specified in Sections 1672(a) through (j) shall be presented to the client in the form of a HERS Report for either a California Whole-House Home Energy Rating or a California Home Energy Audit as specified in the HERS Technical Manual.

(l) Field Verification and Diagnostic Testing. The Provider and Rater shall provide field verification and diagnostic testing of energy efficiency improvements as a condition for those improvements to qualify for the Title 24, Part 6, Building Energy Efficiency Standards compliance credit, as required by the Title 24, Part 6, Building Energy Efficiency Standards and Reference Appendices.

(m) Provider and Rater Conduct and Responsibility. Providers and Raters shall not knowingly provide untrue, inaccurate, or incomplete rating information or report rating results that were not conducted in compliance with these regulations. Providers and Raters shall not knowingly accept payment or other consideration in exchange for reporting a rating result that was not in fact conducted and reported in compliance with these regulations.

Note: Authority cited: Sections 25213 and 25942, Public Resources Code. Reference: Section 25942, Public Resources Code.

§ 1673. Requirements for Providers.

(a) Training and Certification Procedures for Raters. Each Provider shall conduct the following Rater training and certification procedures.

(1) Each Provider's training program shall include classroom and field training of applicants for California Whole-House Home Energy Rater certifications, incorporating training in analysis, theory, and practical application in at least the following areas:

(A) Home energy consumption and efficiency data collection, organization and analysis.

(B) Principles of heat transfer.

(C) Building energy feature design and construction practice, including construction quality assurance, on-site renewable generation, and “house as a system” concepts.

(D) Safety practices relevant to home energy auditing procedures and equipment.

(E) Home energy audit procedures.

(F) Energy efficiency effects of building site characteristics.

(G) Types and characteristics of space heating, space cooling, service hot water, and hard wired lighting systems.

(H) Mathematical calculations necessary to utilize the Rating System.

(I) The modeling and use of Energy Commission-approved HERS software required to produce a California Whole-House Home Energy Rating or a California Home Energy Audit and the associated California Home Energy Rating Certificate, California Home Energy Audit Certificate and HERS Report in accordance with the algorithms, procedures, methods, assumptions, and defaults specified in the HERS Technical Manual.

(J) Methods of cost-effectiveness analysis including interest and discount rates, cost-benefit ratios, life cycle cost analysis, calculation of present value, cash flow analysis, payback analysis, and cost estimation.

(K) The function and proper use of diagnostic devices including but not necessarily limited to: duct leakage testing equipment, blower doors, and air flow and pressure measurement devices.

(L) Construction types, equipment types, and their associated energy efficiency ramifications.

(M) Field verification and diagnostic testing requirements of the Title 24, Part 6, Building Energy Efficiency Standards and the Reference Appendices.

(N) Interpretation of prioritized recommendations for efficiency improvements and customized adjustment procedures for specific occupants.

(O) The behavioral, psychological, cultural, and socioeconomic influences on energy consumption of home occupants in the United States and California.

(P) California Home Energy Rating System Program requirements specified in these regulations.

(2) California Home Energy Inspector applicants shall not be required to be trained by the Provider in areas indicated in Sections 1673(a)(1)(H), (I), (J), (K), (M), (N) and (O) but shall be required to receive specific training in the areas indicated in Sections 1673(a)(1)(A) through (G) and general training in Sections 1673(a)(1)(L) and (P).

(3) California Home Energy Analysts applicants shall not be required to be trained by the Provider in Sections 1673(a)(1)(D) and (K) but shall be required to receive specific training in Sections 1673(a)(1)(G), (H), (I), and (J) and general training in Sections 1673(a)(1)(A) to (C), (E), (F), and (L) to (P).

(4) California Field Verification and Diagnostic Testing Raters shall not be required to be trained by the Provider in the areas indicated in Sections 1673(a)(1)(I), (J), (N), and (O) but shall be required to receive specific training in Sections 1673(a)(1)(H) and (K) through (M) and general training in Sections 1673(a)(1)(A) to (G) and (P).

(5) The training for all certifications and Raters shall include thorough instruction in using the Provider's Rating System and database.

(6) The training shall require California Whole-House Home Energy Rater applicants to satisfactorily perform a rating for at least one home that includes field verification and diagnostic testing in the presence and under the direct supervision of the Provider's trainer or Quality Assurance Reviewer. The training shall require California Field Verification and Diagnostic Testing Rater applicants to satisfactorily perform field verification and diagnostic testing for at least one home in the presence and under the direct supervision of the Provider's trainer or Quality Assurance Reviewer. The Provider shall review and approve these ratings for accuracy and completeness.

(7) The Provider shall require each applicant to take an Energy Commission-approved written and practical test that demonstrates his or her competence in all subjects specified in Section 1673(a)(1). The Provider shall retain all results of these tests for five years from the date of the test.

(8) Each Provider may establish an Energy Commission-approved challenge test that evaluates competence in each area addressed by the Provider's training program. If a Rater applicant successfully passes this challenge test, the Provider may waive the classroom training requirement and the written and practical test requirements for that applicant. An applicant who passes this challenge test shall also successfully meet the requirements specified in Section 1673(a)(6).

(9) Programs incorporating Building Performance Contractors shall provide specific training in all areas specified in Section 1673(a)(1). These programs shall be submitted by the Provider for individual review and approval by the Energy Commission.

(b) Rater Agreements. As a condition of Rater registry under Section 1673(d), each Provider shall ensure that a Rater applicant who has met the applicable requirements of Section 1673(a) has entered into an agreement with the Provider to provide home energy rating and field verification and diagnostic services in compliance with these regulations. The agreement shall require Raters to:

(1) Provide home energy rating and field verification services in compliance with these regulations.

(2) Provide true, accurate, and complete data collection, analysis, ratings, and field verification and diagnostic testing.

(3) Not accept payment or consideration in exchange for reporting data gathered for a rating, analytical results used for a rating, or a rating result that was not in fact conducted and reported in compliance with these regulations.

(4) Comply with the conflict of interest requirements as specified in Section 1673(j).

(c) Building Performance Contractor Agreements. To be certified and registered as a Building Performance Contractor, a Provider shall ensure that a Building Performance Contractor applicant has entered into an agreement with the Provider to provide home energy rating services in compliance with these regulations. The agreement shall require Building Performance Contractors to:

(1) Be current and active licensed class B general building contractors and agree to abide by the laws and regulations of the California Contractors State License Board, including, but not limited to, complying with advertising requirements, home improvement contract requirements, and use of properly licensed subcontractors.

(2) Provide home energy rating services in compliance with these regulations.

(3) Provide home energy rating services under these regulations only with Raters certified under an Energy Commission-approved Building Performance Contractor program pursuant to Section 1674(e).

(4) Comply with requirements for the issuance of building permits, state and local building codes, and the other requirements of Section 7110 of the Contractors License Law (Business and Professions Code).

(5) Notify the Provider of any citation, suspension, or revocation actions by the California Contractors State License Board against the contractor.

(d) Rater and Building Performance Contractor Registry. As a condition of Rater registry, each Provider shall certify to the Energy Commission that a Rater applicant has met the requirements of Section 1673(a) and entered into an agreement meeting the requirements of Section 1673(b). As a condition of Building Performance Contractor registry, each Provider shall certify to the Energy Commission that the applicant has met the definition of a Building Performance Contractor and entered into an agreement meeting the requirements of Section 1673(c). The Provider shall maintain a registry of all Raters, persons, or firms that meet these requirements, provide an electronic copy of the registry to the Energy Commission, and make that registry available in printed or electronic form upon written request.

(e) Data Maintenance.

(1) Each Provider shall record and maintain for a period of ten years all data collected for a rating if the data is listed as a required or optional input for the rating in question. This requirement shall apply to data collected from a site visit, from the plans for a newly constructed building, or from a utility bill analysis. All required or optional outputs generated for a rating shall also be recorded.

(2) For homes that have received a field verification rating, the following information shall also be collected and maintained for ten years and may be in an electronic format:

(A) The energy efficiency improvements field verified and diagnostically tested.

(B) Whether or not the builder chose to include the home in a sample for field verification and diagnostic testing as specified in the Residential Appendices to Title 24, Part 6.

(C) Whether or not initial field verification and diagnostic testing as specified in the Residential Appendices to Title 24, Part 6, was conducted on the home.

(D) Whether or not the home in a sample was actually selected and field verified and diagnostically tested as specified in the Residential Appendices to Title 24, Part 6.

(E) Whether or not the home in a sample was actually selected for resampling and field verified and diagnostically tested after a sampling failure was found in the sample as specified in the Residential Appendices to Title 24, Part 6.

(F) Whether or not the home in a sample was field verified and diagnostically tested and corrective action was taken after a resampling failure was found in the sample as specified in the Residential Appendices to Title 24, Part 6.

(G) Whether or not the homeowner declined to have field verification, diagnostic testing, and corrective action taken after occupancy as specified in the Residential Appendices to Title 24, Part 6.

(H) The Certificate of Compliance, the Installation Certificate, and the Certificate of Field Verification and Diagnostic Testing.

(f) Field Verification and Diagnostic Testing Evaluation. Providers shall maintain a database of the information specified in Section 1673(e)(2) for a minimum 10 percent random sample of the homes actually field verified and diagnostically tested annually, or 500 such homes annually, whichever is less. Each Provider shall provide this information annually in electronic form to the Energy Commission for evaluating the effectiveness of field verification and diagnostic testing. If the Energy Commission makes this information public, it will be in aggregated form only. All of this information shall be organized according to climate zones as defined in Section 101(b) of Title 24, Part 6 of the California Code of Regulations.

(g) Data Submittal. Upon the Energy Commission's request, but not more frequently than annually, a Provider shall submit to the Energy Commission information recorded pursuant to Section 1673(e) and provide the Energy Commission ongoing access to the Provider's database. If the Energy Commission makes this information public, it will be in an aggregated form only.

(h) Training Materials Retention. Each Provider shall retain for at least five years after the last date they are used, at least one copy of all materials used to train Raters.

(i) Quality Assurance. Each Provider shall have a quality assurance program that provides for at least the following:

(1) Quality Assurance Staff. The Provider shall have a designated Quality Assurance Manager to oversee the quality assurance process. The Quality Assurance Manager shall appoint as many Quality Assurance Reviewers as necessary to assist with the completion of the tasks outlined in this Subsection 1673(i). The qualifications of the Quality Assurance Manager and the Quality Assurance Reviewers shall be submitted to the Energy Commission.

(2) Initial Review. The Provider shall review and approve for accuracy and completeness the rating documentation for at least the first five homes which a Rater performs after completion of the requirements specified in Section 1673(a)(1) through Section 1673(a)(6), not including those homes rated under the Provider's direct supervision as specified in Section 1673(a)(6).

(3) Quality Assurance for California Whole-House Home Energy Raters and California Field Verification and Diagnostic Testing Raters.

(A) For each Rater, the Provider shall annually evaluate the greater of one rating, randomly selected or one percent of the Rater's past 12 month's total number of ratings (rounded up to the nearest whole number) for each measure tested by the Rater. For Raters that have had at least one quality assurance evaluation for any measure in the past 12 months, this evaluation shall only be required to be done for those measures that have been tested by the Rater at least 10 times in the past 18 months. The Provider shall independently repeat the rating to check whether the rating was accurately completed by the Rater, and determine whether information was completely collected and reported. The Provider also shall conduct the same check on one percent of all ratings conducted through the Provider, selected randomly from the Provider's entire pool of ratings on an ongoing basis. For Energy-Rated Homes using the Building Performance Contractor exception to Section 1673(j)(3), at least five percent of the Energy-Rated Homes shall be evaluated by a Quality Assurance Reviewer.

(B) Raters shall not be informed that a building or installation will be field checked until after they have completed the original rating. The field check shall occur after the submission of the Certificate of Field Verification and Diagnostic Testing for a field verification rating and after the distribution of the HERS Report for a home energy rating.

(C) These evaluations by the Provider's Quality Assurance personnel shall be documented in the Provider's database and include the results of all testing performed by the Provider's Quality Assurance personnel. If the Provider's Quality Assurance personnel determine that the Rater's results did not meet the criteria for truth, accuracy, or completeness of these regulations, then the Provider shall report the quality assurance failure on the Provider's Rater registry and Building Performance Contractor registry websites for a period of six months. In addition, the Provider's Quality Assurance personnel shall evaluate two additional ratings of the failed measure by the same Rater performed in the past 12 months. If a second deficiency is found, then the Rater shall have two percent (rounded up to the nearest whole number) of his ratings of the failed measure evaluated for the next 12 months by all Providers. The Provider's Quality Assurance Manager shall notify other Providers in writing or by electronic mail of Raters that are required to have additional quality assurance verification as required by this provision.

(4) Additional Quality Assurance for Unrated or Untested Buildings or Installations.

(A) For houses or installations passed as part of a sampling group but not specifically field verified or rated by a Rater, the greater of one house or installation or one percent of all unrated or untested buildings or installations in groups sampled by the Rater shall be independently rated or field verified by the Provider's Quality Assurance personnel.

(B) These quality assurance verifications shall be blind tests in that the Provider shall not inform the installer, builder, or the Rater that the specific building or installation will be verified.

(C) The results of these quality assurance verifications shall be entered into the Provider's database. The Provider shall summarize the results of these quality assurance verifications and submit them to the Energy Commission on an annual basis and provide the Energy Commission with ongoing access to the database and associated summaries of the results of these verifications.

(5) Complaint Response System. Each Provider shall have a system for receiving complaints. The Provider shall respond to and resolve complaints related to ratings and field verification and diagnostic testing services and reports. Providers shall ensure that Raters inform purchasers and recipients of ratings and field verifications and diagnostic testing services about the complaint system. Each Provider shall retain all records of complaints received and responses to complaints for five years after the date the complaint is presented to the Provider and annually report a summary of all complaints and action taken to the Executive Director.

(j) Conflict of Interest.

(1) Providers shall be independent entities from Raters.

(2) Providers and Raters shall be independent entities from the builder and from the subcontractor installer of energy efficiency improvements field verified or diagnostically tested.

(3) Providers and Raters shall be independent entities from any firm or person that performs work on the home for a California Home Energy Audit or a California Whole-House Home Energy Rating. EXCEPTION to Section 1673(j)(3): California Whole-House Home Energy Raters, who are working as or for a Building Performance Contractor certified under an Energy Commission-approved Building Performance Contractor program as part of a Provider's Rating System as specified in Section 1674(e) of the regulations and in the HERS Technical Manual, shall not be required to be an independent entity from the person(s) or firm(s) performing the work on a home. This exception shall not apply to California Field Verification and Diagnostic Testing Raters performing field verification and diagnostic testing of newly constructed homes or alterations to existing homes to verify compliance with the requirements of Title 24, Part 6.

(k) Improvement Measures Cost Database. Each Provider shall develop and maintain a database of the cost of implementing the efficiency improvement measures specified in the HERS Technical Manual. The database shall contain statewide standardized cost values and regional adjustment factors.

Note: Authority cited: Sections 25213 and 25942, Public Resources Code. Reference: Section 25942, Public Resources Code.

§ 1674. Certification of Providers and Rating Systems.

(a) Application. A person or entity wishing to be certified as a Provider and wishing to have a Rating System certified shall submit four copies of an application to the Energy Commission. The application shall contain:

(1) A complete copy of all rating procedures, manuals, handbooks, Rating System descriptions, and training materials.

(2) A detailed explanation of how the Rating System meets each requirement of Section 1672.

(3) A detailed explanation of how the Provider meets each requirement of Section 1673.

(4) The name, address, and telephone number of the Provider and a statement of where its principal place of business is and where and upon whom service of legal process can be made.

(5) Upon Energy Commission request, if the Provider is a corporation, a copy of the articles of incorporation and the current by-laws.

(6) If the Provider is a partnership, the names, addresses, telephone numbers, and partnership status (for example, general, managing) of all the partners, and a copy of the current partnership agreement.

(7) The names, addresses, telephone numbers, and business relationships of all the Provider's owners, parents, subsidiaries, and affiliates.

(8) A statement that ratings are accurate, consistent, and uniform, utility bill estimates are reasonable, and recommendations on cost-effective energy efficiency improvement measures are reliable.

(9) A statement that the Provider understands and will not knowingly fail to comply with the requirements of these regulations.

(10) A statement under penalty of perjury that all statements in the application are true, provided in the form specified by Section 2015.5 of the Code of Civil Procedure.

(b) Confidentiality of Information. Any Provider who submits the required application information and wishes to have that information treated as confidential in order to limit its disclosure shall, at the time of submitting the information, apply for a confidential designation as specified in Section 2505 of Title 20 of the California Code of Regulations.

(c) Energy Commission Consideration.

(1) The Energy Commission's Executive Director may request additional information from the applicant necessary to complete and evaluate the application.

(2) The Executive Director shall provide a copy of its evaluation to interested persons. The Executive Director may convene a workshop to receive comments from interested persons.

(3) Within 90 business days of receiving the complete application, the Executive Director shall send to the Energy Commission and to the applicant a written recommendation that the Energy Commission certify the Provider and its Rating System or deny that certification.

(4) The Executive Director shall recommend certifying the Provider and Rating System if the Executive Director finds the following:

(A) The Rating System meets all of the requirements of Section 1672.

(B) The Provider meets all of the requirements of Section 1673.

(5) The Energy Commission shall act on the recommendation at its next regularly scheduled Business Meeting that is at least 15 business days after the date that the recommendation was mailed to the applicant.

(6) The Energy Commission shall certify the proposed Provider and Rating System if it confirms the Executive Director's findings in Section 1674(c)(4).

(7) Upon certification the Energy Commission shall assign the Provider a three-digit identification number.

(d) HERS Rating Software Approval. As part of a Provider's Home Energy Rating System the Provider shall apply for approval of HERS rating software. Application for approval of HERS rating software may be submitted with the application for certification of the Provider and their Rating System or as an amendment to their approval and certification. However, approval of HERS rating software is subject to an independent timeline.

The approval process for HERS rating software shall only begin after Energy Commission approval of the software as compliance software for the Title 24, Part 6, Building Energy Efficiency Standards in accordance with the requirements of the ACM Manual.

(1) If the application for the HERS rating software approval is complete, the Executive Director shall make the application available to interested parties by posting the information on the Energy Commission website for public comments. Comments from interested parties shall be submitted within 60 business days after acceptance of the application or approval of the software as compliance software for the Title 24, Part 6, Building Energy Efficiency Standards, whichever is later.

(2) Within 75 business days of receipt of an application or approval of the software as compliance software for the Title 24, Part 6, Building Energy Efficiency Standards, whichever is later, the Executive Director may request any additional information needed to evaluate the application. If the additional information is incomplete, consideration of the application shall be delayed until the applicant submits complete information.

(3) Within 75 business days of receipt of the application or approval of the software as compliance software for the Title 24, Part 6, Building Energy Efficiency Standards, whichever is later, the Executive Director may convene a workshop to gather additional information from the applicant and other interested parties. Interested parties shall have 15 business days after the workshop to submit additional information regarding the application.

(4) Within 90 business days after the Executive Director receives the application, or within 30 business days after receipt of complete additional information requested, or within 60 business days after the receipt of additional information submitted by interested parties, whichever is later, the Executive Director shall submit to the Energy Commission a written recommendation on the application.

(5) The application and the Executive Director's recommendation shall be placed on the business meeting agenda and considered at a business meeting within 30 business days after submission of the recommendation.

(6) All applicants have the burden of proof to establish that their applications should be approved.

(e) Special Approval. Programs within Rating Systems using California Home Energy Inspectors or Building Performance Contractors to develop or complete California Whole-House Home Energy Ratings or California Home Energy Audits shall be separately approved by the Energy Commission. Rating Systems using Third Party Quality Control programs as described in the Residential Appendices to Title 24, Part 6 for field verification and diagnostic testing procedures to verify compliance with Title 24, Part 6, shall also be separately approved by the Energy Commission.

(f) Re-certification. A certified Provider shall notify the Energy Commission whenever any change occurs in any of the information, documentation, or materials the Provider submitted to the Energy Commission under Section 1674(a), and shall submit the changed information to the Energy Commission. Where this changed information could affect the Provider's compliance with these regulations, the Energy Commission may require that the
Provider and the Rating System be re-certified under the process described in Section 1674. The Executive Director may waive re-certification for non-substantive changes. The Energy Commission may also require that Providers and Rating Systems be re-certified if the requirements of these regulations are amended or modified.

Note: Authority cited: Sections 25213 and 25942, Public Resources Code. Reference: Section 25942, Public Resources Code.

§ 1675. Review by the Energy Commission.

(a) Annual Review. The commission may annually review the performance of Providers certified under Section 1674 to determine whether the Providers comply with the requirements of these regulations. This review may include interviewing recipients of ratings and field verification and diagnostic testing services and reports on a voluntary basis.

(b) Request for Investigation. Any person or entity may file a request for investigation concerning any violation of these regulations as provided for in Section 1230 et. seq. of Title 20 of the California Code of Regulations. The commission may, for good cause, conduct an investigation and, if necessary, hearing, under the procedures established in Section 1233 et. seq. Each Provider shall provide all information requested by the Energy Commission regarding any annual review or complaint proceeding.

(c) Commission Determination. If the commission determines there is a violation of these regulations or that a Provider is no longer providing rating, field verification and diagnostic testing services, the commission may revoke the certification of the Provider pursuant to Section 123~~0~~3 et. seq.

Note: Authority cited: Sections 25213 and 25942, Public Resources Code. Reference: Section 25942, Public Resources Code.

Article 9. Building Energy Use Data Access, Benchmarking, and Public Disclosure

§ 1680. Purpose.

This article implements procedures, pursuant to Public Resources Code section 25402.10, for providing energy use data, benchmarking energy performance, and publicly disclosing energy performance for buildings in California.

Note: Authority cited: Sections 25213, 25218(e) and 25402.10, Public Resources Code. Reference: Section 25402.10, Public Resources Code.

§ 1681. Definitions.

(a) Active: A Utility Account is considered "Active" if (1) it is receiving Energy at the time of the request, and (2) the postal address that the Utility Account is currently serving received Energy at any time during the time period for which Energy use data is requested.

(b) Benchmark: To obtain information on the Energy use in an entire building for a specific period to enable that usage to be tracked or compared against other buildings.

(c) Covered Building: Any structure used or intended to support or shelter any use or occupancy, other than a condominium project as described in section 4125 or 6542 of the California Civil Code, that received Energy from a Utility during the period for which Energy use data is requested, and has (1) no residential Utility Accounts, or (2) five or more Active Utility Accounts of any one Energy type, at least one of which is residential. Two or more Covered Buildings on the same parcel, campus, or site that are served by one common Energy meter without submetering, such that their Energy use cannot be tracked individually, shall be considered one Covered Building.

(d) Disclosable Building: A Covered Building of any property type defined by ENERGY STAR Portfolio Manager that has more than 50,000 square feet of Gross Floor Area, and has (1) no Active residential Utility Accounts, or (2) 17 or more Active residential Utility Accounts of each Energy type serving the building. Notwithstanding the foregoing, neither of the following is a Disclosable Building: (1) a building in which more than half of the Gross Floor Area is of a type or usage exempted through the process specified in section 1684(c), or (2) a building in which more than half of the Gross Floor Area is used for scientific experiments requiring controlled environments, or for manufacturing or industrial purposes.

(e) Energy: Electricity, natural gas, steam, or fuel oil sold by a Utility to a customer for end uses addressed by the ENERGY STAR Portfolio Manager system.

(f) ENERGY STAR Portfolio Manager: The tool developed and maintained by the United States Environmental Protection Agency to track and assess the Energy performance of buildings.

(g) Gross Floor Area: The total building square footage, measured between the principal exterior surfaces of the enclosing fixed walls of the building(s). This includes all areas inside the building, including lobbies, tenant areas, common areas, meeting rooms, break rooms, atriums (count the base level only), restrooms, elevator shafts, stairwells, mechanical equipment areas, basements, and storage rooms.

(h) Operator: Defined the same as “Owner's Agent.”

(i) Owner's Agent: A Person with authorization from the building owner to act on behalf of the building owner.

(j) Person: An individual, corporation, government or governmental subdivision or agency, estate, trust, partnership, limited liability company, association, organization, or other legal or commercial entity.

(k) Portfolio Manager Property ID: A unique identifier assigned by the United States Environmental Protection Agency to each property entered in Portfolio Manager.

(*l*) Utility: An entity providing Energy to a building. An Energy aggregator that does not directly bill an individual customer is not considered a Utility for this program.

(m) Utility Account: An agreement between a Utility and its customer to provide Energy to a pre-determined location, subject to the following exceptions:

(1) Where multiple postal addresses within a building are served by the same Utility Account for a single Energy type, those separate postal addresses will be treated as separate Utility Accounts under this Article.

(2) Where a single postal address is served by multiple Utility Accounts of a single Energy type, those Utility Accounts will be treated as a single Utility Account under this Article.

Note: Authority cited: Sections 25213, 25218(e) and 25402.10, Public Resources Code. Reference: Sections 25116 and 25402.10, Public Resources Code.

§ 1682. Data Access.

(a) Data Request.

(1) The owner of a Covered Building, or the Owner's Agent, may request Energy use data from each Utility serving a Covered Building by providing the following information:

(A) The building address.

(B) Verification that the Person making the request is authorized to receive Energy use data for the building.

(i) This may be demonstrated through an attestation that the person submitting the request is the building owner or Owner's Agent, or is authorized to act on behalf of the building owner or Owner's Agent.

(ii) If the Person making the request is the customer of record for all Utility Accounts that are the subject of the request, authorization to access Energy use data for the building may instead be verified by providing, at the Utility's discretion, a unique password, account number, or other unique identifier for the accounts that are the subject of the request.

(iii) A Utility may accept or require electronic submission of the information or attestation required by this subdivision.

(C) An indication of whether the building had an Active Utility Account serving multiple postal addresses, as described in 1681(m)(1), during the period for which Energy use data is requested, and if so, the number of unique postal addresses served by the Utility Account.

(D) The written permission of any Utility customers for accounts serving a postal address in the building that have been obtained by the building owner as described in subdivision (b)(4) of this section.

(E) If there are fewer than three Utility Accounts serving the building, an indication of whether the request is made for compliance with the Benchmarking and Public Disclosure requirements in section 1683.

(2) The request in subdivision (a)(1) of this section shall be made in writing or by a secure electronic method specified by the Utility.

(b) Utility Requirements.

(1) For each Energy type, the Utility shall deliver to the building owner or Owner's Agent the last four characters of the meter number for each meter serving the building.

(2) For each Energy type, the Utility shall identify, aggregate, and provide all Energy use data for the requested building, in monthly intervals, for at least the previous calendar year, and all available data for the calendar year in which data is requested, by one of the following methods:

(A) Utilities not using ENERGY STAR Portfolio Manager's Data Exchange Services shall send the data to the building owner or Owner's Agent using the spreadsheet template provided by ENERGY STAR Portfolio Manager.

(B) Utilities using ENERGY STAR Portfolio Manager's Data Exchange Services shall provide the data by direct upload to the building owner's or Owner's Agent's ENERGY STAR Portfolio Manager account, or, at the building owner's or Owner's Agent's request, send the data to the building owner or Owner's Agent using the spreadsheet template provided by ENERGY STAR Portfolio Manager.

(3) Within 14 calendar days of receiving a request as described in subdivision (a) of this section, a Utility shall review the request to determine whether it contains all of the information required by subdivision (a)(1) of this section, and determine whether permission has been provided if required by subdivision (b)(4) of this section.

(A) If the request contains all of the information specified in subdivision (a)(1) of this section:

(i) If the request is one for which permission is not required pursuant to subdivision (b)(4) of this section, or if the building owner has obtained permission from each utility customer as specified in subdivisions (b)(4)(A)(i) or (b)(4)(B) of this section as applicable, the Utility shall notify the person who submitted the request that the request is complete, and that the building owner or Owner's Agent will receive the requested information within 28 calendar days.

(ii) If the request is one for which permission is required pursuant to subdivision (b)(4) of this section and permission has not already been granted by each Utility customer other than the building owner with a Utility Account serving a postal address in the building, the Utility shall notify the building owner or Owner's Agent that it will request permission.

(B) If the request does not contain all of the information specified in subdivision (a)(1) of this section, the Utility shall notify the person who submitted the request that the request is missing information or contains incorrect information and must be resubmitted, specifying what information is missing or incorrect.

(4) If a Utility receives a request for Energy use data for a building that has (1) fewer than three Active Utility Accounts of any Energy type the Utility provides, none of which are residential, or (2) fewer than five Active Utility Accounts of any Energy type the Utility provides, at least one of which is residential, the Utility shall not provide the information listed in subdivisions (b)(1) and (b)(2) of this section for that Energy type unless permission is obtained from each Utility customer other than the building owner with a Utility Account serving a postal address in the building.

(A) If a building owner or Owner's Agent makes a request for Energy use data that is not for compliance with the Benchmarking and Public Disclosure requirements in section 1683:

(i) The building owner or Owner's Agent may obtain written permission directly from a Utility customer and submit that permission to the Utility. The permission may be granted through a provision in the lease or through a separate document.

(ii) If the building owner or Owner's Agent has not obtained permission from any customer pursuant to subdivision (b)(4)(A)(i) of this section, the Utility shall, within 14 calendar days of receiving a data request, send to each customer who has not already granted permission a request for permission to share the customer's Energy use data with the building owner or Owner's Agent. If any customer has not provided an affirmative response within 30 calendar days of the Utility request, the Utility shall notify the building owner or Owner's Agent that Energy use data will not be provided because permission was not obtained.

(B) If a building owner or Owner's Agent makes a request for Energy use data for compliance with the Benchmarking and Public Disclosure requirements in section 1683, permission may be demonstrated as specified in subdivision (b)(4)(A) of this section, provided that each customer additionally grants permission for aggregated Energy use data to be publicly disclosed.

(C) If a building owner is the holder of an Active Utility Account in a Covered Building, the permission of the building owner shall not be required for the Utility to provide Energy use data for that Utility Account, whether or not that request facilitates compliance with the Benchmarking and Disclosure requirements in section 1683.

(5) A Utility must not require anything from the building owner or Owner's Agent other than the information listed in subdivision (a) of this section.

(6) A Utility shall provide the information required by these regulations within 28 calendar days of receiving a complete request. If permission is required pursuant to subdivision (b)(4) of this section, a Utility shall provide the information required by these regulations within 28 calendar days of receiving permission.

(7) A Utility is not required to provide the information specified in subdivisions (b)(1) and (b)(2) of this section more than once in a three-month period, unless the information is requested for compliance with the Benchmarking and Public Disclosure requirements in section 1683.

(8) A Utility may, at its discretion, allow a building owner or Owner's Agent to request that aggregated Energy use data be provided by recurring automatic upload. As a condition of requesting automatic upload, the building owner or Owner's Agent must agree to notify the Utility if any of the following occurs, in which case the Utility shall stop providing Energy use data by recurring automatic upload:

(A) The number of Utility Accounts receiving Energy in the building falls below three for a building with no residential Utility Accounts, or below five for a building with at least one residential Utility Account.

(B) A Utility customer who has granted permission to have aggregated Energy use data shared with the building owner or Owner's Agent revokes this permission.

(C) A new Utility Account is opened in a building that previously had only one Active Utility Account, the owner of which had given permission for Energy use data to be shared with the building owner pursuant to this program, if the owner of the second Utility Account has not granted permission for Energy use data to be shared with the building owner or Owner's Agent.

(D) The person receiving Energy use data is no longer the building owner or Owner's Agent.

(9) If a Utility is unable to send the information listed in subdivision (b)(2) of this section due to an interruption in ENERGY STAR Portfolio Manager, the Utility shall notify the building owner or Owner's Agent of the interruption and send the information listed in subdivision (b)(2) of this section directly to the building owner or Owner's Agent by a secure electronic method.

Note: Authority cited: Sections 25213, 25218(e) and 25402.10, Public Resources Code. Reference: Section 25402.10, Public Resources Code.

§ 1683. Benchmarking and Public Disclosure.

(a) Schedule.

(1) The owner of a Disclosable Building with no residential Utility Accounts shall comply with subdivision (b) of this section in 2018 and annually thereafter.

(2) The owner of any other Disclosable Building shall comply with subdivision (b) of this section in 2019 and annually thereafter.

(b) Benchmarking and Reporting Disclosable Buildings.

(1) For a Disclosable Building, the building owner or Owner's Agent shall do the following:

(A) Open an ENERGY STAR Portfolio Manager account and complete all required fields as specified by Portfolio Manager for each Disclosable Building.

(B) By March 1 of the year specified in subdivision (a) of this section, and by each March 1 thereafter, request Energy use data for the building as described under section 1682(a). A building owner or Owner's Agent who already has complete Energy use data for the building may upload or enter it into Portfolio Manager instead of requesting it from a Utility serving the building.

(2) For Disclosable Buildings with (1) three or more Active Utility Accounts, or (2) fewer than three Active Utility Accounts where all Utility customers have granted permission to have their Energy use data publicly disclosed consistent with section 1682 (b)(4)(B), the building owner or Owner's Agent shall do the following:

(A) If the Utility did not provide data through Data Exchange Services, upload the Energy use data for the previous calendar year into the ENERGY STAR Portfolio Manager account.

(B) Once the Energy use data has been uploaded into ENERGY STAR Portfolio Manager, run the automated data checking tools and correct any errors.

(C) By June 1 of the year specified in subdivision (a) of this section, and by each June 1 thereafter, on the Energy Commission benchmarking website, select the appropriate ENERGY STAR Portfolio Manager reporting link, log into ENERGY STAR Portfolio Manager, and complete the reporting steps specified therein, including selecting the building(s) to report, reviewing the information to be reported for accuracy, and sharing the information with the Energy Commission.

(3) For Disclosable Buildings with fewer than three Active Utility Accounts of any Energy type serving the building, where one or more Utility customers other than the building owner have not granted permission to have their Energy use data publicly disclosed consistent with section 1682(b)(4)(B), the building owner or Owner's Agent shall, on the Energy Commission benchmarking website, select the appropriate ENERGY STAR Portfolio Manager reporting link, log into ENERGY STAR Portfolio Manager, and complete the reporting steps specified therein, including selecting the building(s) to report, reviewing the information to be reported for accuracy, and sharing the information with the Energy Commission.

(4) For a Disclosable Building with fewer than three Active Utility Accounts of any Energy type serving the building, one of which belongs to the building owner, where the other Utility customer, if applicable, has consented to the provision of data to facilitate public disclosure, the building owner or Owner's Agent shall do one of the following:

(A) Include the building owner's Energy use data in the report made to the Energy Commission pursuant to subdivision (b)(2) of this section.

(B) File a request for determination by the executive director of the Energy Commission that disclosure of the building owner's Energy use data would result in the release of proprietary information that can be characterized as a trade secret.

(i) If the executive director grants the request, the building owner or Owner's Agent shall, on the Energy Commission benchmarking website, select the appropriate ENERGY STAR Portfolio Manager reporting link, log into ENERGY STAR Portfolio Manager, and complete the reporting steps specified therein, including selecting the building(s) to report, reviewing the information to be reported for accuracy, and sharing the information with the Energy Commission.

(ii) If the executive director does not grant the request, the building owner or Owner's Agent shall complete the reporting process in subdivision (b)(2) of this section.

(5) If a building owner or Owner's Agent is unable to comply with subdivision (b) of this section by the specified date due to an interruption in ENERGY STAR Portfolio Manager, the building owner or Owner's Agent shall complete compliance within 14 calendar days of ENERGY STAR Portfolio Manager resuming service.

(c) Public Disclosure.

(1) For Disclosable Buildings with no Active residential Utility Accounts, the Energy Commission will not make building-level data received in 2018 public. For these buildings, the Energy Commission will publicly disclose building-level data received in 2019 and thereafter.

(2) For Disclosable Buildings with Active residential Utility Accounts, the Energy Commission will not make building-level data received in 2019 public. For these buildings, the Energy Commission will publicly disclose building-level data received in 2020 and thereafter.

(3) For a Disclosable Building, except as provided in subdivision (c)(4) of this section, the Energy Commission may make available on a public website the following information and derivatives thereof:

(A) Building address.

(B) County.

(C) Year built.

(D) Gross Floor Area.

(E) Latitude and longitude.

(F) Property or building name, if any.

(G) Property type.

(H) Property floor area (building and parking).

(I) Open “comments” field for the building owner or Owner's Agent to provide additional information about the building.

(J) ENERGY STAR Portfolio Manager Property ID.

(K) Percentage of space occupied (Occupancy).

(L) Number of occupants.

(M) Number of buildings (if served by one common Energy meter without submetering).

(N) ENERGY STAR Score, for eligible buildings.

(O) Monthly and/or annual site Energy use by Energy type.

(P) Monthly and/or annual weather-normalized site and/or source Energy use intensity.

(Q) Monthly and/or annual peak electricity demand.

(R) Total greenhouse gas emissions.

(4) For those buildings described in subdivision (b)(3) of this section, and those for which the executive director has granted a trade secret determination as described in subdivision (b)(4)(B)(i) of this section, the Energy Commission may make available on a public website items (A) through (M) from subdivision (c)(3) of this section.

(d) If the Owner of a Disclosable Building benchmarks and reports Energy use data for that building to the United States Department of Housing and Urban Development in combination with Energy use data of other buildings on the same parcel, campus, or site, the Owner may comply with subdivisions (a) and (b) of this section for the same combination of buildings.

Note: Authority cited: Sections 25213, 25218(e) and 25402.10, Public Resources Code. Reference: Section 25402.10, Public Resources Code.

§ 1684. Exemptions.

(a) Exemptions for Building Owners. A building owner is exempt from the requirements of section 1683 for a building meeting any of these conditions:

(1) The building did not have a certificate of occupancy or temporary certificate of occupancy for more than half of the calendar year for which reporting to the Energy Commission is required.

(2) The building is scheduled to be demolished one year or less from the reporting date.

(3) The building was benchmarked pursuant to a local program listed on the Energy Commission website pursuant to subdivision (b) of this section.

(b) Local Benchmarking Program Exemption Process.

(1)(A) A local jurisdiction may request a determination from the executive director of the Energy Commission that compliance with its benchmarking program fulfills the requirements of section 1683. The executive director will approve the request if:

(i) The program includes annual public disclosure of, at a minimum:

1. For all Disclosable Buildings covered by the local benchmarking program, items (A), (C), (D), and (G) in section 1683(c)(3); and

2. For Disclosable Buildings covered by the local benchmarking program, except those buildings described in section 1683(c)(4). item (O) in section 1683(c)(3).

(ii) The local jurisdiction agrees to transmit to the Energy Commission all information that is publicly disclosed for a calendar year by August 1 of the following year.

(B) Where a local benchmarking program has been approved pursuant to this subdivision, any building benchmarked pursuant to that program in a given calendar year is exempt from compliance with section 1683 for that year. The Energy Commission shall list each local benchmarking program approved pursuant to this subdivision on its website.

(2) The Energy Commission may revoke a determination made pursuant to subdivision (b)(1) of this section if it determines that a local benchmarking program is not meeting the requirements of subdivisions (b)(1)(A) and (b)(1)(B) of this section. At least 30 calendar days before a determination is revoked, Energy Commission staff shall notify the local jurisdiction and the public that the Energy Commission will consider revoking the determination and provide an opportunity for public comment.

(3) If the Energy Commission revokes a determination pursuant to this subdivision, compliance with the local benchmarking program shall no longer constitute compliance with the requirements of section 1683, starting with the calendar year following the year in which the determination is revoked.

(4) If a determination is revoked, the Energy Commission shall indicate on its website the date of revocation and the calendar year in and after which compliance with the local program will no longer constitute compliance with section 1683.

Note: Authority cited: Sections 25213, 25218(e) and 25402.10, Public Resources Code. Reference: Sections 25216.5(d), 25320 and 25402.10, Public Resources Code.

§ 1685. Violations and Enforcement.

The Energy Commission may enforce any of the following violations through the measures identified in Public Resources Code section 25321, after notifying the offending party of the violation and providing 30 days to correct the violation:

(a) Violations by a person requesting energy use data.

(1) Failing to comply with the requirements of section 1683(a) or (b).

(2) Knowingly submitting false information to a Utility in a request for Energy use data.

(3) Knowingly sharing false information with the Energy Commission.

(b) Violations by a Utility.

(1) Failing to comply with the requirements of section 1682(b).

(2) Knowingly sharing false data with a building owner or Owner's Agent.

Note: Authority cited: Sections 25213, 25218(e) and 25402.10, Public Resources Code. Reference: Sections 25116 and 25402.10, Public Resources Code.

Chapter 5. Power Plant Site Certification

Article 1. General Provisions Applicable to Notices of Intent and Applications for Certification

A. Scope

§ 1701. Scope of Regulations.

(a) Article 1 applies to all notice of intent proceedings and all application for certification proceedings.

(b) Article 2 of this chapter shall apply to all notices except as provided in Article 4.

(c) Article 3 of this chapter shall apply all applications for certification except as provided in Article 4.

(d) Article 4 of this chapter shall apply to all geothermal notices and applications for certification.

(e) Article 5 of this chapter shall apply to all applications for a Small Power Plant Exemption.

(f) Article 6 of this chapter shall apply to all powerplant and transmission line jurisdictional determinations.

(g) Article 7 of this chapter shall apply to all Expedited Applications under Public Resources Code Section 25550

Note: Authority cited: Sections 25218(e) and 25541.5, Public Resources Code. Reference: Sections 25541.5 and 25550, Public Resources Code.

B. Filing and Information Requirements for Notices of Applications

§ 1704. Information Requirements for Notices of intent and Applications for Certification.

(a) General Requirements. All notices and applications shall conform to the following requirements:

(1) Except where otherwise indicated, any descriptions, statements, analyses, and discussions required in the notice or application shall extend to the site and related facilities.

(2) An applicant may incorporate by reference any information developed or submitted in any previous commission proceeding, provided that the notice or application contains a summary of the referenced material, identifies the proceeding in which it was submitted, and explains the relevance of the material to the information requirement. To the extent possible, the applicant should rely on findings, conclusions, analyses, policies, and other guidelines adopted or established in the most recent Biennial Report in order to satisfy the information requirements.

(3) The notice or application shall include or reference the following:

(A) Descriptions of all significant assumptions, methodologies, and computational methods used in arriving at conclusions in the document;

(B) Descriptions, including methodologies and findings, of all major studies or research efforts undertaken and relied upon to provide information for the document; and a description of ongoing research of significance to the project (including expected completion dates); and

(C) A list of all literature relied upon or referenced in the document, along with brief discussions of the relevance of each such reference.

(4) Each principal subject area covered in a notice or application shall be set forth in a separate chapter or section, each of which shall identify the person or persons responsible for its preparation.

(b) The informational requirements for notices~~,~~ and applications ~~for certification, and applications for a small powerplant exemption~~ are contained in this section and in appendices to this Chapter. Maps required in this section and in the appendices shall be provided at the scale specified in the appendices, except that applicants may provide maps at a different scale if the maps are legible and if a written explanation of why this different scale is more appropriate is included in the notice or application. The term region means a geographic area that is normally contiguous and exhibits similar geographic characteristics. The term vicinity means both that area in close proximity to the project site and which receives a preponderance of the direct impacts of the project. The area referred to by the terms vicinity and region will overlap, although, in most circumstances, the vicinity will be part of the region. The size of the region and vicinity that should be discussed in the filing will vary depending on the project's location (e.g., rural, urban, coastal), its technology (e.g., nuclear, coal, geothermal), and by technical area. Applicants should use their professional judgment in determining the appropriate size of the region and vicinity to be discussed in the application. A statement explaining the extent of the area described for each technical area shall be included.

(1) The notice of intention shall contain all the information specified in Appendix A to this chapter for a nongeothermal site and related facilities, and Appendix C for a geothermal site and related facilities.

(2) The application for certification shall contain all information specified by Appendix B of this chapter and the commission decision approving the notice, if any.

(3) Except where otherwise indicated, any descriptions, statements, analyses, and discussions required in a geothermal notice or application shall extend to the geothermal power plant and associated geothermal field, including, but not limited to, wells that supply the power plant or re-inject geothermal fluids, resource conveyance lines, major access roads, storage sites, switchyards, waste disposal sites, and all other structures or improvements which are related to the power plant. Information and data concerning the associated geothermal field are required to the extent that they relate to the environmental impacts of the entire project or to the reliability of the proposed power plant. Absent new information or changed circumstances, incorporation of environmental impact reports on the geothermal field will fulfill the requirements for field information.

(4) Where required information on any aspect of the proposed geothermal power plant is unavailable, the geothermal notice may contain typical operating data or projections representative of the size and type of the facilities proposed, together with a discussion of the applicability of the data to the proposed facilities, an identification of limitations inherent in the representative data, an explanation for the unavailability of the required information, and an estimate of when such information will be available. The substitution of representative or projected information for the information requested in Appendix C is intended to allow and encourage the filing of a notice prior to the discovery or confirmation of commercial resources.

~~(5) The application for small powerplant exemption shall contain all the information specified by Appendix F.~~

(c) Information requirements for applications. The application for certification shall contain all the information required by Appendix B of this article (for nongeothermal projects) or Appendices B or C of Article 4 (for geothermal projects) and any information required by the decision on the notice (see Section 1805, Article 4 for geothermal requirements).

Note: Authority cited: Sections 25213, 25216.5(a), 25218(e) and 25541.5, Public Resources Code. Reference: Sections 21080.5, 25308.5, 25504, 25519(a), 25519(c), 25520, 25522(b), 25523(d)(1), 25540.1, 25540.2~~,~~ and 25540.6, ~~25541,~~ Public Resources Code.

§ 1706. Number of Copies.

Consistent with section 1208.1, the executive director shall specify the number of copies and the format of notices of intent, applications for certification, ~~and small power plant exemptions,~~ and any amendments~~,~~ to be filed.

Note: Authority cited: Section 25213, Public Resources Code. Reference: Sections 25502 and 25519, Public Resources Code.

§ 1707. Authority and Verification.

Every notice and application shall be dated and signed by each applicant attesting under penalty of perjury to its truth and accuracy.

Note: Authority cited: Section 25213, Public Resources Code. Reference: Sections 25502 and 25520, Public Resources Code.

§ 1708. Costs and ~~Application, Compliance, and Reimbursement~~ Fees.

~~(a) A cashier's check or wire transfer in the amount required by subsections (c) and (d) shall accompany the filing of the notice.~~

(a) A project owner shall pay all fees specified in Public Resources Code sections 25802 and 25806, and reimburse the commission for its actual costs of processing a petition to amend as specified in 25806(e). In calculating the fee required by Public Resources Code section 25806(a), generating capacity shall be determined in the manner specified in section 2003(a).

(b) "Processing the petition to amend," as used in Public Resources Code section 25806(e), includes the activities of staff, staff subcontractors, and legal counsel representing staff in the preparation of the staff assessment and in any proceeding on a petition through the adoption of the commission decision, as well as the labor and administrative expenses associated with the

production and distribution of staff, committee, and commission documents. The activities of commissioners and their advisors, commission hearing officers, and other attorneys and commission staff advising commissioners or the commission are not considered part of processing the petition to amend.

(c) Costs shall be calculated based on the hourly loaded rates for staff, including subcontractors, consultants and legal staff, and the hours worked to process a petition to amend. If requested by a project owner, the commission shall provide a full accounting, including the following: the hours billed by staff, subcontractors, consultants and legal staff; the hourly rate associated with each; a description of the work performed; and supporting documentation.

(~~b~~d) Upon the demand of the executive director, the project owner shall pay additional fees to the commission in the amount of any reimbursement made to local agencies by the commission pursuant to s~~S~~ection 1715 of this article.

(e) Project owners may request an investigation of the fees they have been assessed using the procedures set forth in section 1231.

~~(c) A cashier's check or wire transfer for $100,000 plus $250 per megawatt (MW) of generating capacity shall accompany the filing of an Application for Certification (AFC). Generating capacity shall be determined in accordance with Section 2003 (a).~~

~~(d) The owner of each facility granted certification shall submit a cashier's check or wire transfer for $15,000 annually. The first payment of the annual fee shall be due on the date the Commission adopts the final decision for the facility. Subsequent payments shall be paid on July 1 of each year in which the facility retains its certification.~~

~~(e) The fees specified in (c) and (d) shall be adjusted annually to reflect the percentage change in the Implicit Price Deflator for State and Local Government Purchases of Goods and Services, as published by the U.S. Department of Commerce.~~

~~(f) A project which use a renewable resource as its primary fuel or power source is exempt from the filing and compliance fees identified in (c) and (d).~~

~~(g) Fees paid pursuant to this section are non-refundable. Additional fees may be required in the event an amendment to the AFC increases the Gross generating capacity identified in (c).~~

Note: Authority cited: Section 25213, Public Resources Code. Reference: Sections 25538, 25802 and 25806, Public Resources Code.

§ 1709. Filing of Notices of Intent and Applications for Certification; Data Adequacy Review and Docketing.

(a) Upon the filing of any notice or application for certification, all documentation shall be reviewed by the executive director or a delegatee to determine whether the notice or application for certification contains the information required under section 1704 and is therefore complete. The executive director or a delegatee shall take into consideration the timely comments of the Air Resources Board, local air pollution control districts, other agencies, and members of the public prior to the determination of whether the notice or application for certification contains the information required under section 1704 and is therefore complete.

(b) No later than 30 days after the receipt of a non-geothermal notice or application and no later than 20 days after receipt of a geothermal notice or application for certification, the executive director shall file his or her recommendation on whether the notice or application for certification contains the information required under section 1704 and is therefore complete.

(c) No later than 45 days after receipt of a nongeothermal notice or application for certification, and no later than 30 days after receipt of a geothermal notice or application for certification, the commission shall act upon the executive director's recommendation as to whether the notice or application for certification contains the information specified in Section 1704 and is therefore complete. If the commission determines that the notice or application for certification is complete, the notice or application for certification shall be deemed accepted for the purpose of this section on the date that this determination is made. If the commission determines that the notice or application for certification is incomplete, the commission shall indicate, in writing, those parts of the notice or application for certification which fail to meet the information requirements and the manner in which it can be made complete.

(d) If the applicant files additional data to complete the notice or application for certification, the commission shall determine, within 30 days of the receipt of that data, whether the data is sufficient to make the notice or application for certification complete. The notice or application for certification shall be deemed filed on the date when the commission determines the notice or application for certification is complete if the commission has adopted regulations specifying the informational requirements for a complete notice or application for certification, but if the commission has not adopted regulations, the notice or application for certification shall be deemed filed on the last date the commission receives any additional data that completes the notice or application for certification.

(e) On or before acceptance of a notice or application for certification ~~or upon filing of an application for a small powerplant exemption~~, a committee, a presiding member and a hearing officer shall be designated pursuant to Sections 1204(a) and 1205 to conduct proceedings on the notice or application.

Note: Authority cited: Sections 25213 and 25541.5, Public Resources Code. Reference: Sections 25211, 25502, 25504, 25516.6, 25520, 25522, 25540.1~~,~~ and 25540.2 ~~and 25541~~, Public Resources Code.

§ 1709.5. Prefiling Review.

Before filing a notice or application, a potential applicant may request the executive director conduct a prefiling meeting and review of the proposed project for purposes of receiving guidance and advice regarding the proposed project's siting, design, construction and operation, and the requirements for documentation.

Note: Authority cited: Section 25213, Public Resources Code. Reference: Sections 25502, 25520 and 25540.3, Public Resources Code.

§ 1709.7. Informational Hearing, Site Visit, and Schedule.

(a) Within 45 days after the acceptance of a notice of intent or application for certification, the presiding member shall hold one or more informational hearings and site visits as close as practicable to the proposed sites. Notice of the first informational hearing shall comply with section 1209, shall include information on how to participate in the proceeding, and shall be

provided to all persons identified by the applicant under section (a)(1)(E) of the information requirements in Appendix B.

(b) At least five days before the first informational hearing, the staff shall file a written statement summarizing the major issues that the staff believes will be presented in the case.

(c) No later than 15 days after the last informational hearing, the presiding member shall establish the schedule for the prehearing phase of the proceeding.

(d) At each informational hearing the applicant shall describe the proposed project, and staff shall explain how the proceeding~~s~~ is conducted. The presiding member shall allow questions to the applicants and staff from any person~~s~~ regarding the proposed project.

Note: Authority cited: Sections 25213 and 25541.5, Public Resources Code. Reference: Sections 25214, 25216.5 and 25509, Public Resources Code.

§ 1709.8. Withdrawal of Notice or Application.

(a) Any time after acceptance, the applicant may withdraw the notice or application by filing and serving on all parties written notice of withdrawal. The notice of withdrawal must be authorized and verified in the same manner as the original notice or application, as provided in Section 1707.

(b) Upon receipt of a properly executed withdrawal, the presiding member, or if there is none, the Chairman, shall immediately issue a written order to terminate the notice or application proceeding and close the docket. The records and documents of the proceeding shall continue to be maintained by the Docket Unit.

(c) If the applicant decides to go forward with a project after the notice or application proceeding is terminated, the applicant must file a new notice or application under Section 1709.

Note: Authority cited: Section 25213, Public Resources Code. Reference: Section 25216.5, Public Resources Code.

§ 1710. Staff as an Independent Party.

In carrying out its duties pursuant to this chapter, staff shall be an independent party to all notice~~,~~ and application~~, and exemption~~ proceedings. Staff is not required to petition to intervene in such proceedings.

Note: Authority cited: Section 25213, Public Resources Code. Reference: Section 25217(b), Public Resources Code.

§ 1711. Public Notice of Discussions Among Parties.

All hearings, presentations, conferences, meetings, workshops, and site visits shall be open to the public and noticed as required by section 1209; provided, however, these requirements do not apply to communications between parties, including staff, for the purpose of exchanging information or discussing procedural issues. Information includes facts, data, measurements, calculations and analyses related to the project. Discussions between staff and any other party to modify staff's positions or recommendations regarding substantive issues shall

be noticed. Staff may also meet with any governmental agency, not a party to the proceedings, for the purpose of discussing any matter related to the project without public notice.

Note: Authority cited: Section 25213, Public Resources Code. Reference: Section 11129, Government Code; Sections 25216.5 and 25222, Public Resources Code.

§ 1713. Summary of Notice or Application; Distribution

(a) Upon filing of the notice or application, the executive director shall prepare a summary of such notice or application. The summary shall be concise and understandable, shall fairly describe the content of the notice or application using the applicant's own words whenever possible, and shall include a description of the commission's procedures concerning proceedings on the notice or application, as appropriate.

(b) As soon as practicable after its preparation, the executive director shall cause a copy of the summary to be mailed or otherwise delivered to public libraries in communities near the proposed sites, including the main branch of a public library in each county in which a facility is proposed to be located in whole or in part; to libraries in Eureka, Fresno, Los Angeles, San Diego, and San Francisco; and to all members, to the ex officio members, to the public adviser, to the hearing officer, to the general counsel, to the applicant, to any person who requests such mailing or delivery, and to all parties to the proceeding.

(c) As soon as practicable after its preparation, the executive director shall cause the summary to be published in a newspaper of general circulation in each county in which a site and related facility, or any part thereof, designated in the notice or application, are proposed to be located.

Note: Authority cited: Sections 25218(e) and 25541.5, Public Resources Code. Reference: Sections 25505 and 25519(g), Public Resources Code.

§ 1714. Distribution of Copies to Public Agencies and Tribal Governments; Request for Comments.

(a) As soon as possible after receipt of the notice or application for a site and related facility requiring a certificate of public convenience and necessity, the executive director shall transmit a copy thereof to the Public Utilities Commission and shall request the Public Utilities Commission to perform an analysis and to offer comments and recommendations regarding the economic, financial, rate, system reliability, and service implications of the design, construction, operation, and location of the site and related facilities. For applications for a site and related facility which does not require a certificate of public convenience and necessity, the executive director shall transmit a notice of receipt of the application to the Public Utilities Commission.

(b) Within ten days after receipt of the application for a site and related facility that is proposed to connect to the California Independent System Operator-controlled grid, the executive director shall transmit a copy thereof to the California Independent System Operator and shall request the California Independent System Operator to perform an analysis and to offer comments and recommendations regarding the system reliability implications and identification of interconnection facilities required for connection to the California Independent System Operator-controlled grid. For applications which do not connect to the California Independent System Operator-controlled grid, the executive director shall transmit a notice of receipt to the California Independent System Operator.

(c) The executive director shall also transmit a copy of the notice or application to the Coastal Commission for any site located in the coastal zone, to the Bay Conservation and Development Commission (BCDC) for any site located in the Suisun Marsh or the jurisdiction of the BCDC, to the California Department of Fish and Wildlife to the Air Pollution Control District in which the project is located, to the Regional Water Quality Control Board in which the project is located, to all federal, state, regional, and local agencies which have jurisdiction over the proposed site and related facility, or which would have such jurisdiction but for the commission's exclusive authority to certify sites and related facilities pursuant to Chapter 6 (commencing with section 25500) of Division 15 of the Public Resources Code, and to any other federal, state, regional, or local agency which has been identified as having a potential interest in the proposed site and related facility, and shall request analyses, comments, and recommendations thereon.

(d) No later than 14 days after a n~~N~~otice ~~of Intent,~~ or a~~A~~pplication ~~for Certification or Small Power Plant Exemption~~ has been accepted, staff shall notify and invite tribal governments deemed traditionally and culturally affiliated with a project area by the Native American Heritage Commission, to participate in consultations with staff, consistent with Public Resources Code section 21080.3.1. For projects with a federal nexus, staff shall also invite tribal governments deemed traditionally and culturally affiliated with a project area by federal land managing agencies, to participate in consultations.

(e) Upon receiving a copy of the notice or application, each agency requested to file comments shall inform the presiding member (or the executive director if no committee has been appointed yet) of when such comments can be filed with the commission. Unless otherwise specified by law or by order of the presiding member, all such comments shall be filed prior to the conclusion of the evidentiary hearings held pursuant to s~~S~~ections 1723~~,~~ and 1745~~, and 1944~~ on the notice or application.

Note: Authority cited: Sections 25218(e) and 25541.5, Public Resources Code. Reference: Sections 25505, 25506, 25506.5, 25507 and 25519, Public Resources Code.

§ 1714.3. Agency Comments on a Notice of Intent; Purpose and Scope.

Any agency requested, pursuant to Section 1714 of this article, to transmit its comments and recommendations to the commission on a site and related facility proposed in the notice shall be requested to do each of the following:

(a) Identify each aspect of the proposed site and related facility for which the agency has land use or related jurisdiction or would have such jurisdiction but for the exclusive authority of the commission to certify sites and related facilities;

(b) List and summarize the nature of the laws, regulations, ordinances, or standards which the agency administers or enforces and which are applicable to the proposed site and related facility or would be applicable but for the commission's exclusive authority to certify sites and related facilities pursuant to Section 25500 of the Public Resources Code;

(c) Describe the nature and scope of the information requirements which the applicant must eventually meet in order to satisfy the substantive requirements of the agency; summarize the agency's procedures for resolution of such requirements and indicate the amount of time necessary to do so; describe any other studies, analyses, or other data collection which the applicant, agency, or commission should perform in order to resolve each substantive or permit requirement of the agency;

(d) Based upon available information, conduct a preliminary analysis and provide comments and recommendations to the commission regarding the design, operation, and location of the facilities proposed in the notice, in relation to environmental quality, public health and safety, and other factors on which the agency has expertise or jurisdiction. The preliminary analysis shall be limited to that necessary to advise the commission on whether there is a reasonable likelihood that the proposal will be able to comply with the agency's applicable laws or concerns. The analyses should identify aspects of the proposed site and facilities which are likely to disqualify a proposal as an acceptable site and related facility; and

(e) Submit to the commission, and upon request of the presiding member, present, explain, and defend in public hearings held on the notice, the results of the agency's analyses, studies, or other review relevant to the notice.

Note: Authority cited: Sections 25218(e) and 25541.5, Public Resources Code. Reference: Sections 25506 and 25509.5, Public Resources Code.

§ 1714.5. Agency Comments on an Application for Certification; Purpose and Scope.

(a) Any agency requested, pursuant to Section 1714 of this article, to submit its comments and recommendations to the commission on any aspect of the application shall be requested to do each of the following:

(1) Update as necessary the information requested or submitted by the agency during the notice proceedings;

(2) Perform or conduct such analyses or studies as needed to resolve any significant concerns of the agency, or to satisfy any remaining substantive requirements for the issuance of a final permit by the agency which would have jurisdiction but for the commission's exclusive authority, or for the certification by the commission for the construction, operation, and use of the proposed site and related facilities; and

(3) Submit to the commission, and upon request of the presiding member, present, explain, and defend in public hearings held on the application, the results of the agency's analyses, studies, or other review relevant to the application. The agency may submit comments and recommendations on any aspect of the application, including among other things, the design of the facility, architectural and aesthetic features of the facility, access to highways, landscaping and grading, public use of lands in the area, and other aspects of the design, construction, or operation of the proposed site and related facility.

(b) Consistent with Section 1742, comments and recommendations submitted to the commission pursuant to this section regarding the project's conformance with applicable laws, ordinances, and standards under the agency's jurisdiction shall be given due deference by staff.

Note: Authority cited: Sections 25218(e) and 25541.5, Public Resources Code. Reference: Section 25519(f), (g), (j), Public Resources Code.

§ 1715. Reimbursement of Local Agencies.

(a) Costs eligible for reimbursement.

(1) Local agencies shall be reimbursed for costs incurred in accordance with actual services performed by the local agency, provided that the local agency follows the procedures set forth in this section. These costs include:

(A) permit fees, including traffic impact fees, drainage fees, park-in-lieu fees, sewer fees, public facilities fees and the like, but not processing fees, that the local agency would normally receive for a powerplant or transmission line application in the absence of Commission jurisdiction, and

(B) the added costs of services performed directly in response to Commission requests for review that are not normally covered by the permit fee and for which a fee is normally charged.

(b) Costs ineligible for reimbursement. A local agency may not be reimbursed under this section for the following types of costs, even if actually incurred:

(1) expenses incurred by a local agency for the presentation or defense of positions not reasonably related to the matters which the agency is requested to review or not within the area of the agency's expertise;

(2) expenses for which it receives payment from other sources;

(3) expenses incurred in advocating a position as a formal intervenor to the proceeding, except for the local district and Air Resources Board presentations pursuant to Section 1744.5; or

(4) entertainment and first class travel expenses.

(c) Procedure for approving reimbursement budgets.

(1) To be eligible for reimbursement, a local agency must receive a request for review from the Chairman, Presiding Member, or Executive Director.

(2) To apply for reimbursement, a local agency shall, within 21 days of receiving a request for review from the commission, file an itemized proposed budget with the staff and the applicant estimating the actual and added costs that are likely to be incurred during such review. The proposed budget shall justify each line item amount and explain how each line item is reasonably related to the matters which the agency is requested to review. A local agency's failure to file a proposed budget within the time period specified herein shall not prevent it from receiving reimbursement; however, failure to use the approval process described in this section creates a risk that the local agency will not be reimbursed for work already performed.

(3) Within 10 working days of receiving a proposed budget, the staff shall notify the agency, in writing, whether the proposed budget is complete or incomplete. If the proposed budget is incomplete, the staff shall provide the local agency with a list of deficiencies that must be corrected to complete the proposed budget request.

(4) If neither the commission staff nor the project applicant files a written objection to the proposed budget within 10 working days after the proposed budget is determined to be complete, then the proposed budget is deemed approved.

(5) If a local agency reasonably incurs costs in responding to a commission request for review of a project before its proposed budget is approved, the local agency may include such costs in the budget retroactively.

(6) A local agency may apply for augmentations or other changes to an approved budget by filing a request for an amended budget. Requests for an amended budget shall also be processed in accordance with this subdivision.

(d) Procedure for approving reimbursement invoices.

(1) A local agency seeking reimbursement must receive approval of its proposed budget before it files an invoice for expenses actually incurred. Reimbursement may not exceed the approved budget.

(2) On either a monthly or quarterly basis, the local agency seeking reimbursement shall file with the commission staff and the project applicant an invoice for the expenses actually incurred during the past month or quarter.

(3) If the applicant does not object to the invoice within 10 days after receipt, then it shall pay the local agency the amount of the invoice within 14 days of the receipt of the invoice.

(e) Resolving disputes. If there is a dispute over a reimbursement budget under subdivision (c) above, or a reimbursement invoice under subdivision (d) above, which cannot be directly resolved between the applicant and the local agency, the staff shall notify the committee in writing of the dispute. The committee shall resolve the dispute by written order. The committee shall have discretion to determine whether and to what extent hearings are required to resolve the dispute.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25538, Public Resources Code.

§ 1716. Obtaining Information.

(a) The executive director or the chief counsel shall have authority to request or otherwise obtain from the applicant such information as is necessary for a complete staff analysis of the notice or application.

(b) Any party may request from the applicant any information reasonably available to the applicant which is relevant to the notice or application proceedings or reasonably necessary to make any decision on the notice or application. All such requests shall include the reasons for the request.

(c) Any public agency which is not a party and which has been requested to provide comments on the notice or application shall have the same rights as a party to obtain information necessary to comply with the commission's request for comments. To the extent practicable, the staff shall coordinate requests from agencies to the applicant to avoid duplicative requests.

(d) Any party may request from a party other than the applicant information which is reasonably available to the responding party and cannot otherwise be readily obtained, and which is relevant to the proceeding or reasonably necessary to make any decision on the notice or application. All such requests shall state the reasons for the request.

(e) All requests for information shall be submitted no later than 180 days from the date the commission determines an application is complete, unless the committee allows requests for information at a later time for good cause shown.

(f) Any party requested to provide information pursuant to this section shall, within 20 days of receiving the request, notify the requesting party and the committee in writing if it is unable to provide or objects to providing the information requested of it. Such notification shall state the reasons for the inability or the grounds for the objection. Absent such an objection, the party shall provide the information requested within 30 days of the date that the request is made. The dates specified in this section may be changed by mutual agreement of the parties or by committee order.

(g) If the requesting party or agency is unable to obtain information as provided in this section, such party or agency may petition the committee for an order directing the responding party to supply such information. A party petitioning the committee for an order to provide information must do so within either 30 days of being informed in writing by the responding party that such information will not be provided or within 30 days of the date the information was provided or was due. The committee may set a hearing to consider argument on the petition, and shall, within 30 days of the filing of the petition, either grant or deny the petition, in whole or in part. The committee may direct the commission staff to supply such of the information requested as is available to the staff.

(h) The committee shall have the authority to require from any electric utility, including any aggregator, scheduling coordinator, energy service provider, or independent power producer, information which is specific to the subject notice or application and reasonably necessary to make any decision on the notice or application; provided, however, that such information, or its equivalent, is not reasonably available from any party or from publicly available records. Applications for confidentiality may be filed pursuant to Title 20, California Code of Regulations, section 2501 et seq.

(i) All information requests and responses shall be served on all parties to the proceeding by the requesting and responding parties respectively; provided, however, that requests for information made orally at a public meeting or hearing authorized by the presiding member need not be made in writing or served unless otherwise required by the presiding member. The presiding member may set reasonable time limits on the use of, and compliance with, information requests in order to avoid interference with any party's preparation for hearings or imposing other undue burdens on a party. No information requests shall be submitted by any party after release of the presiding member's hearing order except upon petition to the presiding member.

(j) Any witness testifying at a hearing shall to the extent that it does not unduly burden the witness, make available to any party on request copies of any work papers relied upon in the preparation of the testimony. If a witness for the applicant sponsors any portion of the notice or application for inclusion in the hearing record, the applicant shall make available, on request, all work papers relied upon in the preparation of the sponsored portion.

Note: Authority cited: Sections 25218(e) and 25541.5, Public Resources Code. Reference: Sections 25210, 25502, 25519(b) and 25541, Public Resources Code; and Section 11181, Government Code.

§ 1720. Reconsideration of Decision or Order.

(a) Within 30 days after a decision or order is final, the commission may on its own motion order, or any party may petition for, reconsideration thereof. A petition for reconsideration must specifically set forth either: 1) new evidence that despite the diligence of the moving party could not have been produced during evidentiary hearings on the case; or 2) an error in fact or change or error of law. The petition must fully explain why the matters set forth could not have been considered during the evidentiary hearings, and their effects upon a substantive element of the decision. In addition to being served on all parties as required by section 1211, the petition for reconsideration shall be filed with the chief counsel of the commission.

(b) The commission shall hold a hearing for the presentation of arguments on a petition for reconsideration and shall act to grant or deny the petition within 30 days of its filing. In the absence of an affirmative vote of three members of the commission to grant the petition for reconsideration, the petition shall be denied.

(c) If the commission grants a petition for reconsideration, or if on its own motion it orders reconsideration, then within 90 days, or within a longer period set by the commission for good cause stated, the commission shall hold a subsequent hearing, which may include the taking of evidence, and shall decide whether to change the decision or order. In the absence of an affirmative vote of three members of the commission to change the decision or order, it shall stand.

(d) The commission may stay the effective date of all or part of a decision or order pending reconsideration thereof. The commission shall specify the length of the stay, which shall expire no later than the end of the period for action upon reconsideration, as established in or pursuant to subdivision (c) of this section.

Note: Authority cited: Sections 25218(e) and 25541.5, Public Resources Code. Reference: Section 25530, Public Resources Code.

§ 1720.2. Termination of Notice of Intent and Application for Certification ~~NOI, AFC, and SPPE~~ Proceedings.

(a) The committee or any party may, based upon the applicant's failure to pursue an application or notice with due diligence, file a motion to terminate the notice or application proceeding. Within 30 days of the filing of such a motion, the committee may hold a hearing and provide an opportunity for all parties to comment on the motion. Following the hearing, the committee shall issue an order granting or denying the motion.

(b) A committee order terminating a proceeding must be approved by the full commission.

Note: Authority cited: Sections 25213, 25218(e) and 25541.5, Public Resources Code. Reference: Sections 25210, 25216.5, 25502~~,~~ and 25519(b) ~~and 25541~~, Public Resources Code.

§ 1720.3. Construction Deadline.

Unless a shorter deadline is established pursuant to § 25534, the deadline for the commencement of construction shall be five years after the effective date of the decision. Prior to the deadline, the applicant may request, and the commission may order, an extension of the deadline for good cause.

Note: Authority cited: Sections 25213, 25218(e) and 25541.5, Public Resources Code. Reference: Sections 25210, 25216.5, and 25519(b), Public Resources Code.

§ 1720.4. Effective Date of Decisions.

For all purposes, including but not limited to implementing sections 25530, 25531, and 25901 of the Public Resources Code, a decision or order is adopted, issued, final, and effective on the day it is filed, unless it states otherwise.

Note: Authority cited: Sections 25213, 25218(e) and 25541.5, Public Resources Code. Reference: Sections 25210, 25216.5, 25502, 25519(b) and 25541, Public Resources Code.

Article 2. Procedures for Considering Notices of Intention to File an Application for Certification

§ 1721. Purpose of Notice and Notice of Intention Proceeding.

(a) The purpose of a notice, and such supporting documentation as may be filed concurrently with the notice, is to provide the commission, interested agencies, and interested members of the public with an informative document which does all of the following:

(1) Accurately describes the nature, size, and location of the sites and related facilities proposed by the applicant;

(2) Fairly identifies and explains the principal environmental, economic, and technological advantages and disadvantages of each siting proposal in the notice;

(3) Identifies measures which the applicant is considering to mitigate the principal disadvantages of each siting proposal in the notice;

(4) Explains the need for the proposed facilities;

(5) Describes the commercial availability of the generation technologies proposed in the notice (if not already determined to be commercially available by the commission); discusses the economic comparability of the proposals based upon comparative generation costs available to the applicant; and explains the impact of the proposed facilities on the overall reliability of the service area system;

(6) Specifies the measures proposed or being considered by the applicant to ensure public health, safety, and reliability during construction and operation of the proposed facilities at each site; and

(7) Indicates the degree to which the proposed facilities can be constructed and operated at each site in conformity with applicable federal, state, and local standards, laws, ordinances, and regulations, including any long-range land use plans or guidelines adopted by any federal, state, regional, or local planning agency.

(b) The purpose of notice of intention proceedings shall be to engage the applicant, the commission, interested agencies and members of the public in an open planning process designed to identify sufficient acceptable sites and related facilities. To this end, each notice of intention proceeding shall be conducted in order to determine the technical, environmental, public health and safety, economic, and social and land use acceptability of alternative sites and related facilities, by accomplishing each of the following:

(1) To provide information on the nature of the siting proposals to interested agencies and members of the public, and to actively solicit their assessments, comments, and recommendations on any aspect of the sites and related facilities proposed in the notice, including recommendations for modification in the location, design, construction or operation of the proposed facilities, or alternatives to the proposal;

(2) To determine whether there is a reasonable likelihood that the facilities will comply with applicable federal, state, regional and local standards, laws, ordinances, regulations, and plans;

(3) To attempt to resolve critical issues affecting the ability to employ the proposed technology at each of the sites and to determine the feasibility of any conditions or modifications necessary to make any site and related facilities proposed acceptable;

(4) To determine whether the proposed facilities can be designed, constructed, and operated in a manner which ensures public health, safety, and reliability, by evaluating the adequacy of the measures proposed by the applicant, assessing their conformity with applicable standards, and where appropriate, determining the necessity, feasibility, and relative costs and benefits of additional measures;

(5) To identify the most serious environmental impacts and assess the feasibility of mitigating such impacts;

(6) To consider alternatives to the proposal, including feasible alternative sites, facilities, or sites and related facilities which may substantially lessen any significant adverse effects which the applicant's proposals may have on the environment or which may better carry out the policies and objectives of the Act;

(7) To consider the economic, financial, rate, system reliability, and service implications of the proposed facilities, in coordination with the Public Utilities Commission (for facilities requiring a certificate of public convenience and necessity) or with the board of directors or other appropriate body of a municipal utility (for all other facilities); and

(8) To prevent any needless commitment of financial resources and regulatory effort prior to a determination of the basic acceptability of, and need for, the proposed facilities, and the suitability of proposed sites to accommodate the facilities; and to eliminate from further consideration and commitment of resources any site and related facility found to be unsuitable, unneeded, or otherwise unacceptable.

(c) In assessing the proposed sites and related facilities, the commission shall defer until the formal application stage (1) a detailed scrutiny of engineering and design aspects, (2) a detailed identification and analysis of significant adverse environmental impacts, or (3) a precise analysis of need for new generating facilities; provided, however, that issues relating to such matters may be considered where resolution of such issues will not unduly hinder or burden the parties and the proceeding and evidence for the resolution of such issues is readily available, or where resolution of such issues is necessary to determine the acceptability of one or more of the sites and related facilities proposed.

(d) It shall be the responsibility of the presiding member to ensure that the notice proceeding is conducted in a manner consistent with the purposes of this article and to ensure that the needless expenditure of time, effort, and financial resources in considering matters more appropriate for the formal certification stage is avoided.

Note: Authority cited: Sections 25218(e) and 25541.5, Public Resources Code. Reference: Sections 25502- 25516.6, Public Resources Code.

§ 1722.5. Air Quality Report on Notice; Preparation; Contents; Testimony.

(a) Upon filing of a notice, the local air district (or the Air Resources Board if the local district fails to participate) in which a site is located shall prepare and submit a report prior to the conclusion of the nonadjudicatory hearings held pursuant to Section 1723. Each agency submitting a report shall testify in support of the report at hearings on the notice. The report shall include, but not be limited to:

(1) A preliminary specific definition of best available control technology (BACT) for the proposed facility;

(2) A preliminary discussion of whether there is a substantial likelihood that the requirements of the applicable new source review rule and all other applicable air quality regulations can be satisfied by the proposed facility; and

(3) A preliminary list of conditions which the proposed facility must meet in order to comply with the applicable rules and regulations.

(b) The ARB shall review and submit written comments on each report. After considering each of the local air district reports, if the ARB is of the opinion that none of the proposed sites has a substantial likelihood of meeting the requirements of the applicable air quality regulations (including emission limitations), the ARB and commission staff, in consultation with the local districts and prior to the conclusion of the nonadjudicatory hearings, shall propose an alternative site or sites, in or near the applicant's service area, which has a greater likelihood of meeting the applicable air quality regulations and which merits further study. The proposal shall include the reasons therefore. If such a proposal is filed, the presiding member may direct the applicant to evaluate major siting constraints of the proposed alternative for presentation at the adjudicatory hearings held pursuant to Section 1725. Each air district and the ARB shall supplement their reports as necessary in response to changes in the applicant's proposal which may occur during the notice proceeding.

Note: Authority cited: Sections 25218(e) and 25541.5, Public Resources Code. Reference: Section 25506, Public Resources Code.

§ 1723. Nonadjudicatory Hearings; Purposes and Procedures.

The committee shall commence nonadjudicatory hearings on the notice pursuant to the hearing order issued by the presiding member.

(a) The hearings shall be used to provide information on the proposed sites and facilities to the public. The presiding member shall reserve a portion of each hearing to permit members of the public to question the applicant and staff about the proposals or about each party's contentions. Both parties shall make qualified persons available to answer questions on the matters scheduled for consideration at each hearing. The presiding member shall limit questions to the applicant and staff to those necessary to identify issues or solicit relevant information on the proposals and shall defer adjudication of identified issues until hearings held under Section 1725.

(b) The hearings shall be used to develop an evidentiary basis for the findings and conclusions required for a decision on the notice. The applicant, staff, and other parties shall present evidence in the hearings pursuant to Section 1723.5 and the hearing order. Testimony or evidence based upon statements of facts agreed to by the applicant or staff which set forth the ultimate positions of either party on need, public health and safety, and environmental acceptability may be admitted into evidence without the necessity of reading the entire statements into the record only if a supporting witness presents an informative summary of the facts and evidence at the hearing and any person so requesting is provided a reasonable opportunity to ask relevant, nonrepetitive questions of the sponsoring witnesses. The presiding member may require oral summaries of other joint statements of facts offered into evidence.

(c) The hearings shall be used to solicit the views and comments of the public, parties, and governmental agencies on the environmental, public health and safety, economic, social, and land use impacts of the facilities at the proposed sites.

(d) The hearings shall be used to identify issues which require adjudication, issues which may be deferred to the certification stage, and issues which may be eliminated from the proceeding. Issues may be raised by submitting comments or testimony which dispute the contentions of the applicant or staff, or by asking questions of witnesses at hearings. The presiding member may permit a party to present evidence to show that an apparently disputed matter presents no issue of fact, or may defer such evidence until the adjudicatory hearings. The presiding member shall determine whether the evidence presented on each matter is sufficient to raise a genuine, relevant, factual issue appropriate for adjudication in subsequent hearings.

(e) The presiding member shall conclude the hearings under this section whenever he or she is satisfied that the purposes of this section have been achieved and that the evidentiary record and issues are sufficiently developed to prepare the summary and hearing order required by Section 1724.

Note: Authority cited: Sections 25218(e) and 25541.5, Public Resources Code. Reference: Section 25509.5, Public Resources Code.

§ 1723.5. Presentation of Evidence; Burdens of Producing Evidence; Burdens of Proof.

(a) The applicant has the burden of proof and of producing evidence on each of the following:

(1) The probable need for the proposed facilities;

(2) A reasonable likelihood that the principal adverse impacts on the environment can be mitigated or avoided;

(3) A reasonable likelihood that the facilities can be constructed and operated safely and reliably;

(4) The suitability of the sites to accommodate the facilities;

(5) The reasonableness of the likely financial impacts of constructing and operating the facilities; and

(6) A reasonable likelihood that the construction and operation of the proposed facilities will comply with the federal, state, regional, and local laws, standards, ordinances, and land use plans which are applicable to the proposals.

(b) The staff shall present its independent assessment of the need for the facilities and of the adequacy of the measures proposed by the applicant to protect environmental quality and to protect public health and safety. The staff may also present evidence on any other matter relevant to the proceeding and shall present evidence on such matters and issues as the presiding member directs.

(c) Any party or person may propose modifications in the design, construction, location, or other conditions to protect public health and environmental quality, to ensure safe and reliable operation, or to meet the standards, policies, and guidelines established by the commission. If the proponent of any such modification or condition demonstrates its apparent reasonableness, the presiding member may direct the applicant and/or staff to examine and present further evidence on the need for and feasibility of such modification or condition.

(d) The staff shall conduct an independent environmental assessment of the applicant's proposals and present a report on its findings at the hearings. The report shall summarize the principal adverse environmental effects of the applicant's siting proposals, evaluate the potential mitigation measures available to the applicant, and assess the feasibility of reasonable alternative sites and facilities other than those proposed by the applicant, which the staff believes may substantially lessen or avoid the principal adverse effects of the applicant's proposal. Any person may suggest one or more of such alternatives to the staff and committee for consideration in the staff report.

(e) Any party or person may propose that the commission approve any alternative site and related facility in lieu of or in addition to the applicant's proposals. The proponent of such alternative siting proposal has the burden of presenting evidence to establish the suitability and acceptability of such proposal as set forth in subsection (a) of this section. The presiding member may also direct the staff to investigate any alternative siting proposal.

Note: Authority cited: Sections 25218(e) and 25541.5, Public Resources Code. Reference: Sections 25509.5, 25511 and 25513, Public Resources Code.

§ 1724. Summary and Hearing Order; Preparation; Contents; Distribution.

(a) After the conclusion of the nonadjudicatory hearings, and no later than 150 days after acceptance of the notice, the presiding member shall prepare and publish a summary of the hearing record and a hearing order pursuant to Public Resources Code Sections 25512 and 25512.5 to guide subsequent adjudicatory hearings.

(b) The hearing order shall identify issues to be adjudicated in subsequent hearings, issues which have been eliminated, and issues which should be deferred to the certification proceeding. To the extent permitted by the record, the summary shall also include proposed findings on matters relevant to the final report and proposed conditions for filing an application.

(c) Based upon information presented in the hearings, the summary and hearing order shall briefly describe each siting proposal, shall summarize the principal significant environmental effects of each siting proposal, and shall describe reasonable alternatives and mitigation measures which could substantially reduce the adverse effects. The summary and hearing order shall list environmental issues regarding potential adverse effects, mitigation measures, and alternatives which require resolution in the subsequent adjudicatory hearings. The summary should briefly describe and discuss those environmental issues important to a decision on the notice.

(d) The presiding member shall publish notice of the availability of the summary and hearing order in a newspaper of general circulation for the county or counties where the sites are located.

(e) The presiding member shall provide all parties with a reasonable opportunity to submit comments, recommendations, and proposed findings and conclusions for the summary and hearing order prior to its preparation. The presiding member may hold a public conference to consider amendments to the hearing order after its publication.

Note: Authority cited: Sections 25218(e) and 25541.5, Public Resources Code. Reference: Sections 25512 and 25512.5, Public Resources Code.

§ 1725. Adjudicatory Hearings.

Pursuant to the hearing order, the assigned committee shall conduct adjudicatory proceedings as provided in Public Resources Code Section 25513.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25513, Public Resources Code.

§ 1726. Final Report; Preparation; Distribution.

(a) The presiding member shall prepare a final report on the notice, as provided in Section 25514 of the Public Resources Code. The report shall propose such findings and conclusions as are warranted by the record of the proceeding; shall recommend either approval or disapproval of the notice and the reasonable conditions, if any, which must be satisfied before certification is granted; and shall contain a proposed decision on the notice.

(b) The final report shall contain the committee's responses to significant environmental points raised in the notice proceeding, including findings and conclusions on each of the environmental issues in the summary and hearing order or otherwise important to a decision on the notice. The report shall include findings on the need for and feasibility of any mitigation measures or alternatives considered in the hearings. The report shall include findings and conclusions on the relative merits and acceptability of each alternative site and related facility proposed and considered in the proceeding, and conditions for filing an application on each site and facility approved.

(c) The final report shall be distributed in the same manner as the summary and hearing order.

Note: Authority cited: Sections 25218(e) and 25541.5, Public Resources Code. Reference: Section 25514, Public Resources Code.

§ 1726.5. Request for PUC Comments.

If the final report recommends any modifications, conditions or criteria for any site and related facility requiring a certificate of public convenience and necessity from the Public Utilities Commission, the presiding member shall request the comments of the PUC in accordance with Section 25514.3 of the Public Resources Code.

Note: Authority cited: Sections 25218(e) and 25541.5, Public Resources Code. Reference: Section 25514.3, Public Resources Code.

§ 1727. Final Report and Proposed Decision Hearings.

(a) The Commission or the assigned committee may hold one or more hearings to consider any statements of the parties on the final report and on the proposed decision, and the comments and recommendations of interested agencies and members of the public. Such statements may contain recommendations for amendments to the final report and proposed decision.

(b) The chairman or the presiding member may require that all statements by parties and other persons be filed in writing in advance of the hearings. No new or additional evidence shall be considered at the hearings under this section unless the commission or the assigned committee adopts a motion to reopen the evidentiary record. In such case, the commission or the assigned committee shall afford such notice to the parties as appears fair and reasonable under the circumstances, but in no event shall such notice be given less than ten days prior to the hearings.

(c) Any member may propose an alternative decision, including supporting findings and conclusions. Such proposed decision may also be considered at the hearings under this section but need not be acted upon until the commission makes its decision on the notice. The commission or the assigned committee shall provide any party with a reasonable opportunity in the hearings or prior to adoption of the final decision to comment on any proposed decision.

(d) The commission shall adopt, reject, or amend and adopt, any proposed decision considered in the hearing on the final report.

(e) The decision shall be based exclusively on the evidentiary record of the proceedings on the notice. The decision shall conform to the requirements of Sections 25516, 25516.1, 25516.5 and 25516.6 of the Public Resources Code.

Note: Authority cited: Sections 25218(e) and 25541.5, Public Resources Code. Reference: Sections 25515, 25516.1, 25516.5 and 25516.6, Public Resources Code.

§ 1729. Nonapprovable Sites or Non-Certifiable Sites.

(a) The commission shall not find acceptable any site and related facility to which the provisions of Sections 25526 or 25527 of the Public Resources Code apply unless the finding required by the applicable section has been made.

(b) The applicant shall be required to comply with the following requirements of Sections 25526 and 25527 at the application stage:

(1) For a site in an area designated by the Coastal Commission, the applicant shall demonstrate to the Coastal Commission that the proposed facilities will cause no substantial adverse environmental effects on any designated area. The Coastal Commission shall submit its findings to the Energy Commission prior to the conclusion of the hearings held under Section 1745 of these regulations.

(2) For a site in an area designated by the BCDC, the applicant shall demonstrate to the BCDC that the proposed facility will cause no substantial adverse environmental effects on any designated area. The BCDC shall submit its findings to the Energy Commission prior to the conclusion of the hearings held under Section 1745 of these regulations.

(3) For a site in an area listed in Section 25527, the applicant shall demonstrate to the Energy Commission that the proposed facility will cause no substantial adverse environmental effects on any such area. The commission's findings shall be contained in the proposed decision on the application.

(4) For a site in any area covered by this section, the applicant shall demonstrate prior to the conclusion of hearings held under Section 1745 that the approval of any public agency having ownership or control of such lands has been obtained.

Note: Authority cited: Sections 25518(e) and 25541.5, Public Resources Code. Reference: Sections 25526 and 25527, Public Resources Code.

§ 1730. Approval; Required Finding for Air Quality.

The commission shall not approve any site and related facility unless it determines that there is a substantial likelihood that it will meet the applicable air quality regulations; provided, however, that if the commission determines that the facility is urgently needed, the applicant has made a good faith effort to find acceptable alternative sites and related facilities, and no otherwise approvable site has a substantial likelihood, it may approve the single site and related facility that is otherwise acceptable and that is most likely to meet all applicable air quality regulations. In such event, the commission shall request the ARB and local districts to appear at the hearings on the final report and advise the commission on which site is most likely to meet the requirements.

Note: Authority cited: Sections 25518, 25541.5, Public Resources Code. Reference: Sections 21081, 25516, Public Resources Code.

§ 1731. Environmentally Unacceptable Sites.

(a) If the commission finds that the construction and operation of a power plant and related facilities at a site would cause a significant adverse effect on the environment, the commission shall follow the provisions of this section.

(1) The commission may find the site and related facilities acceptable despite the probability of a significant adverse effect if the commission finds that there is a reasonable likelihood that the adoption of feasible mitigation measures could substantially reduce the significant adverse effect.

(2) If the commission finds that there is not a reasonable likelihood that feasible mitigation measures could substantially reduce the significant adverse effect, and that there is available a feasible alternative that could avoid or substantially reduce the significant adverse effect, the commission shall find the proposed site unacceptable.

(b) This provision shall not apply to any notice for which only one site and related facility is required.

(c) This provision shall not enlarge the scope of environmental review required by Sections 1723 through 1726.

Note: Authority cited: Sections 25218(e), and 25541.5, Public Resources Code. Reference: Sections 21080.5, and 25541.5, Public Resources.

Article 3. Procedures for Considering Applications for Certification

§ 1741. Application Proceeding; Purpose and Objectives.

(a) The purpose of an application proceeding is to ensure that any sites and related facilities certified provide a reliable supply of electrical energy at a level consistent with the need for such energy, and in a manner consistent with public health and safety, promotion of the general welfare, and protection of environmental quality.

(b) The application proceeding shall be conducted in order to accomplish all of the following objectives:

(1) To ensure that the applicant incorporates into the project all measures that can be shown to be feasible, reasonably necessary, and available to substantially lessen or avoid the project's significant adverse environmental effects, and to ensure that any facility which may cause a significant adverse environmental effect is certified only if the benefits of such facility outweigh its unavoidable adverse effects.

(2) To ensure that the applicant takes all measures that can be shown to be feasible, reasonably necessary, and available to comply with applicable governmental laws and standards; to ensure that any facility certified complies with applicable federal law; and to ensure that any facility which fails to comply with an applicable local or state law or standard is certified only if such facility is required for public convenience and necessity and there are not more prudent and feasible means of achieving such convenience and necessity.

(3) To ensure safe and reliable operation of the facility.

Note: Authority cited: Sections 25218(e) and 25541.5, Public Resources code. Reference: Sections 21081, 25523 and 25525, Public Resources Code; and 14 California Code of Regulations, Sections 15091 and 15093.

§ 1742. Staff Assessment.

(a) Upon acceptance of the application pursuant to Section 1709, staff shall consult with local, state and federal agencies with special expertise or interest in environmental, health, safety and reliability matters related to the application.

(b) The staff shall prepare a preliminary and final environmental assessment of the proposed site and related facilities. Staff's final assessment is the staff's independent report that describes and analyzes the significant environmental effects of a project, the completeness of the applicant's proposed mitigation measures, and the need for, and feasibility of, additional or alternative mitigation measures. The assessment also evaluates the safety and reliability of a project. In developing its assessment, staff may rely on information submitted by parties, other public agencies, members of the public, and experts in the field, as well as any other information obtained through staff's independent research and investigation.

(c) Staff's preliminary environmental assessment shall be subject to at least a 30 day public comment period or such additional time as required by the presiding member. After close of the comment period staff shall publish a final staff assessment, which shall include responses to comments on significant environmental issues received during the comment period. The final staff assessment shall be filed according to a schedule set by the presiding member. If there is no applicable schedule; the final staff assessment shall be filed at least 14 days before the first evidentiary hearing on the subjects covered in the staff assessment.

(d) The staff assessment shall provide a description of all applicable federal, state, regional, and local laws, ordinances, regulations and standards and the project's compliance with them. In the case of noncompliance, the staff assessment shall provide a description of all staff efforts with the agencies responsible for enforcing the laws, ordinances, regulations and standards, for which there is noncompliance, in an attempt to correct or eliminate the noncompliance.

(e) The staff assessment shall indicate the staff's positions on the environmental issues affecting a decision on the applicant's proposal.

Note: Authority cited: Sections 25213, 25218(e) and 25541.5, Public Resources code. Reference: Sections 21081, 25216.5, 25217(b), 25519 and 25520(b), Public Resources Code.

§ 1744. Review of Compliance with Applicable Laws.

(a) Information on the measures planned by the applicant to comply with all applicable federal, state, regional, and local laws, regulations, standards, and plans shall be provided in the application as specified in the appropriate appendix. Such information shall not duplicate information contained in environmental, safety and reliability, and air quality sections of the application.

(b) Upon acceptance of the application, each agency responsible for enforcing the applicable mandate shall assess the adequacy of the applicant's proposed compliance measures to determine whether the facility will comply with the mandate. The commission staff shall assist and coordinate the assessment of the conditions of certification to ensure that all aspects of the facility's compliance with applicable laws are considered.

(c) The applicant's proposed compliance measures and each responsible agency's assessment of compliance shall be presented and considered at hearings on the application held pursuant to Section 1745.

(d) If the applicant or any responsible agency asserts that an applicable mandate cannot be complied with, the commission staff shall independently verify the non-compliance, and advise the commission of its findings in the hearings.

(e) Comments and recommendations by a interested agency on matters within that agency’s jurisdiction shall be given due deference by Commission staff.

Note: Authority cited: Sections 25218(e) and 25541.5, Public Resources Code. Reference: Sections 25216.5(a), 25217(b) and 25523, Public Resources Code.

§ 1744.5. Air Quality Requirements; Determination of Compliance.

(a) The applicant shall submit in its application all of the information required for an authority to construct under the applicable district rules, subject to the provisions of Appendix B(g)(8) of these regulations.

(b) The local air pollution control officer shall conduct, for the commission's certification process, a determination of compliance review of the application in order to determine whether the proposed facility meets the requirements of the applicable new source review rule and all other applicable district regulations. If the proposed facility complies, the determination shall specify the conditions, including BACT and other mitigation measures, that are necessary for compliance. If the proposed facility does not comply, the determination shall identify the specific regulations which would be violated and the basis for such determination. The determination shall further identify those regulations with which the proposed facility would comply, including required BACT and mitigation measures. The determination shall be submitted to the commission within 240 days (or within 180 days for any application filed pursuant to Sections 25540 through 25540.6 of the Public Resources Code) from the date of the acceptance.

(c) The local district or the Air Resources Board shall provide a witness at the hearings held pursuant to Section 1745 to present and explain the determination of compliance.

(d) Any amendment to the applicant's proposal related to compliance with air quality laws shall be transmitted to the APCD and ARB for consideration in the determination of compliance.

Note: Authority cited: Sections 25218(e) and 25541.5, Public Resources Code. Reference: Sections 25216.3 and 25523, Public Resources Code.

§ 1745. Evidentiary Hearings; Purposes; Burden of Proof; Schedule for Filing and Service of Evidence.

(a) No earlier than 90 days after the acceptance of the application, the presiding member may begin evidentiary hearings on the application.

(b) The hearings shall consider the topics listed in 1745.5.

(c) Except where otherwise provided by law, the applicant has the burden of producing evidence to support all findings and conclusions required for certification of the site and related facilities.

(d) The proponent of any additional condition, modification, or other provision relating to the manner in which the proposed facility should be designed, sited, and operated in order to protect environmental quality and ensure public health and safety shall have the burden of making a reasonable showing to support the need for and feasibility of the condition, modification, or provision. The presiding member may direct the applicant and/or staff to examine and present further evidence on the need for and feasibility of such modification or condition.

Note: Authority cited: Sections 25218(e) and 25541.5, Public Resources Code. Reference: Sections 25216.5 and 25521, Public Resources Code.

§ 1745.5. Presiding Member's Proposed Decision; Comment Period; Basis; Contents~~; Hearing~~.

(a) After the end of the evidentiary hearings, the presiding member, in consultation with the other committee members, shall prepare and file a proposed decision on the application that meets the requirements of section 1748.

(b) The presiding member's proposed decision shall~~: (1) B~~ be based on a consideration of the entire hearing record and contain the following:

(~~2~~1) Environmental Factors:

(A) a description of potential significant environmental effects;

(B) an assessment of the feasibility of mitigation measures and a reasonable range of alternatives that could lessen or avoid the adverse effects; and

(C) if any significant effects are likely to remain even after the application of all feasible mitigation measures and alternatives, whether economic, legal, social, technological or other environmental benefits of the project outweigh the unavoidable adverse effects;

(~~3~~2) Laws, Ordinances, Regulations, and Standards:

(A) a description of all applicable federal laws, ordinances, regulations and standards and an assessment of the project's compliance with them;

(B) a description of all applicable state, regional, and local laws, ordinances, regulations and standards, and the project's compliance with them~~.~~:

(i) ~~I~~if the commission finds that there is noncompliance with a state, local, or regional ordinance or regulation, a description of all staff communications with the agencies responsible for enforcing the laws, ordinances, regulations and standards for which there is noncompliance, in an attempt to correct or eliminate the noncompliance;

(ii) if the noncompliance with a state, local, or regional ordinance or regulation cannot be corrected or eliminated, the proposed decision shall discuss whether the proposed project is required for public convenience and necessity and whether there are more prudent and feasible means of achieving such public convenience and necessity. In making the determination, the commission shall consider the entire record of the proceeding, including, but not limited to, the impacts of the facility on the environment, consumer benefits, and electric system reliability; and

(iii) ~~I~~if the noncompliance with a state, local, or regional ordinance or regulation cannot be corrected or eliminated, the proposed decision shall satisfy the commission's obligation to inform the state, local, or regional governmental agency if it makes the findings required by Public Resources Code section 25525~~.~~;

(C) to the extent not already covered under subdivisions ~~(2) or (3)~~ (1) or (2), and for applications for certification, as defined in Public Resources Code section 25102, concerning sites in the Coastal Zones, as defined in Public Resources Code section 30103, or the Suisun Marsh, as defined in Public Resources Code section 29101, a discussion of the issues raised by the California Coastal Commission, if any, pursuant to section 30413(e) of the California Public Resources Code; or issues raised by the San Francisco Bay Conservation and Development Commission, if any, pursuant to section 66630 of the Government Code~~:~~;

(D) to the extent not already covered under subdivisions ~~(2) or (3)~~ (1) or (2), and for sites in the Coastal Zones or Suisun Marsh for which a notice of intent as defined in Public Resources Code section 25113 has been filed:

(i) a discussion of provisions to meet the objectives of the California Coastal Act, as may be specified in the applicable report submitted by the California Coastal Commission under section 30413(d); or to meet the requirements of objectives of the Bay Conservation and Development Act, as may be specified in the applicable report submitted by the San Francisco Bay Conservation and Development Commission under section 66645 of the Government Code;

(ii) if the provisions described in paragraph (i) would result in greater adverse effect on the environment or would be infeasible, an explanation of why; and

(iii) a statement of whether the approval of the public agency having ownership or control of the land has been obtained, whether or not such approval is subject to preemption under Public Resources Code section 25500;

(~~4~~3) a description of land use, as necessary, consistent with Public Resources Code section 25528~~.~~;

(~~5~~4) for new sites proposed for location in the coastal zone or any other area with recreational, scenic, or historic value, proposed conditions relating to land that should be acquired, established, and maintained by the applicant for public use and access consistent with Public Resources Code s~~S~~ection 25529;

(~~6~~5) for new sites proposed along the coast or shoreline of any major body of water, proposed conditions on the extent to which the proposed facilities should be set back from the coast or shoreline to permit reasonable public use and to protect scenic and aesthetic values consistent with Public Resources Code s~~S~~ection 25529;

(~~7~~6) for sites in areas specified in section 25527 of the Public Resources Code ~~state, regional, county or city parks; wilderness, scenic, or natural reserves; areas for wildlife protection, recreation or historic preservation; natural preservation areas in existence as of January 7, 1975; or estuaries in an essentially natural and undeveloped state~~: an analysis of whether:

(A) the facilities will be consistent with the primary land use of the area,

(B) there will be any substantial adverse environmental effects, and ~~of whether~~

(C) the approval of the public agency having ownership or control of the land has been obtained, whether or not such approval is subject to preemption under Public Resources Code section 25500~~.~~;

(~~8~~7) where a nuclear powered facility is proposed, an analysis of the factors in Public Resources Code sections 25524.1 and 25524.2;

(~~9~~8) an analysis of the extent to which the applicant has complied with the recommended minimum standards of efficiency adopted under Public Resources Code section 25402(d);

(~~10~~9) if the application is for a facility to be located on a potential multiple facility site, as determined under of the Public Resources Code section 25516.5, an analysis of the factors listed in Public Resources Code section 25524.5~~.~~;

(~~11~~10) a discussion of any public benefits from the project, including, but not limited to, economic benefits, environmental benefits, and electricity reliability benefits;

(~~12~~11) provisions for restoring the site as necessary to protect the environment, if the commission does not certify the project; ~~and.~~

(~~13~~12) ~~A~~a recommendation as to whether the proposed site and related facilities should be certified, and if so, under what conditions; ~~and~~

(~~14~~13) an ~~E~~engineering ~~A~~assessment relating to facility efficiency, health and safety;

(~~15~~14) a ~~R~~reliability ~~A~~assessment;

(~~16~~15) ~~A~~ any other relevant matter identified by the presiding member;~~.~~

(~~17~~16) responses to all comments on significant environmental issues ~~points~~ raised during the evidentiary hearing; and

(~~18~~17) the reasons supporting the decision and reference to the bases for each of the findings and conclusions in the decision.

(c) Any person may file written comments on the presiding member's proposed decision. The presiding member shall set a comment period of at least 30 days from the date of ~~distribution~~ filing.

Note: Authority cited: Sections 25218(e) and 25541.5, Public Resources Code. Reference: Sections 25519(c), 25522, 25523 and 25525-25529, Public Resources Code.

§ 1746. Revised Presiding Member's Proposed Decision.

After the conclusion of the comment period on the presiding member's proposed decision, the presiding member, in consultation with the other committee member, may prepare a revised proposed decision on the application. If a revised proposed decision is prepared, it shall be filed and subject to a 15-day comment period before consideration by the full commission.

Note: Authority cited: Sections 25213, 25218(e) and 25541.5, Public Resources Code. Reference: Sections 25519(c), 25522 and 25523, Public Resources Code.

§ 1747. Hearing on Presiding Member's Proposed Decision.

(a) Adoption hearings on the presiding member's proposed decision or the revised proposed decision, if any, shall be held before the full commission after the comment period on the presiding member's proposed decision. The hearing shall be conducted for the purpose of considering final oral and written statements of the parties and final comments and recommendations from interested agencies and members of the public. The hearing(s) on the presiding member's proposed decision may be the same hearing as the one to consider the final decision. If a revised decision is issued as provided in Section 1746, the presiding member may schedule additional hearing(s) before either the committee or the full commission prior to or at the same time as the final commission adoption hearing.

(b) The chairman may require that certain statements by parties and other persons be submitted in writing in advance of the hearings. The commission shall not consider new or additional evidence at the hearings under this section unless due process requires or unless the commission adopts a motion to reopen the evidentiary record. In such case, the commission shall afford such notice to the parties as is fair and reasonable under the circumstances.

(c) Any member may propose an alternative decision, including supporting findings and conclusions. Such alternative may also be considered at the hearings under this section but need not be acted upon until the commission makes its final decision.

Note: Authority cited: Sections 25218(e) and 25541.5, Public Resources Code. Reference: Section 25522, Public Resources Code.

§ 1748. Final Decision.

(a) At the conclusion of the hearings under s~~S~~ection 1747, the commission shall adopt a final written decision in conformity with section 1212, which includes all of the information specified by Public Resources Code section 25523.

(b) The decision shall not certify any site and related facility unless the commission finds that:

(1) as necessary, land use is consistent with Public Resources Code s~~S~~ection 25528~~.~~;

(2) if the powerplant will require reprocessing of nuclear fuel rods or off-site storage of nuclear fuel rods in order to provide continuous onsite fuel core reserve storage capacity: facilities with adequate capacity to reprocess nuclear fuel rods or with adequate capacity to store them, as

applicable, have been approved by an authorized agency of the United States, and are or will be in actual operation at the time the powerplant requires such reprocessing or storage~~.~~ , as required by Public Resources Code sections 25524.1 and 25524.2;

(3) with respect to sites in the locations designated by the California Coastal Commission pursuant to Public Resources Code section 30413(b), or by the San Francisco Bay Conservation and Development Commission pursuant to Government Code section 66645, that the findings required by Public Resources Code section 25526 have been made by the appropriate commission;

(4~~3~~) with respect to sites in the areas specified in Public Resources Code section 25527 ~~state, regional, county, and city parks; wilderness, scenic, and natural reserves; areas for wildlife protection, recreation, and historic preservation; natural preservation areas in existence as of January 7, 1975; and estuaries in an essentially natural and undeveloped state~~, that~~:~~

(A) the facility will be consistent with the primary land use of the area,

(B) there will be no substantial adverse environmental effects, and

(C) the approval of the public agency having ownership or control of the land has been obtained;

(5) with respect to a facility proposed to be located in the coastal zone or any other area with regional, scenic, or historic value, as specified by Public Resources Code section 25529, a finding that an area will be established for public use, as determined by the commission, and that the facility to be located along the coast or shoreline of any major body of water will be set back from the shoreline to permit reasonable public use and to protect scenic and aesthetic values;

(6) with respect to a facility which adds generating capacity to a potential multiple-facility site in excess of the maximum allowable capacity established by the commission pursuant to Public Resources Code section 25516.5, the findings required by Public Resources Code section 25524.5;

(7) if the site or facility does not comply with an applicable state, local or regional laws, ordinances, regulations and standards~~:~~, a finding that the facility is required for public convenience and necessity, and there are no more prudent and feasible means of achieving such public convenience and necessity, ~~a finding made pursuant to the requirements of~~ as required by section 25525 of the Public Resources Code;

(~~5~~8) if the construction, operation, or shutdown and decommissioning of the powerplant will cause a significant environmental impact, either (A) or (B):

(A)(i) with respect to matters within the authority of the commission~~:~~, changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effects; and

(ii) with respect to matters not within the commission's authority but within the authority of another agency~~:~~, changes or alterations required to mitigate such effects have been adopted by such other agency, or can and should be adopted by such other agency;

or

(B)(i) specific economic, social, or other considerations make infeasible all mitigation measures or project alternatives that would mitigate or avoid the significant environmental effects; and

(ii) ~~That~~ the benefits of the project outweigh the unavoidable significant adverse environmental effects that may be caused by the construction and operation of the facility.

Note: Authority cited: Sections 25218(e) and 25541.5, Public Resources Code. Reference: Sections 21080.1, 21081, 25216.3, 25523, 25525-25527, 25529 and 25541.5, Public Resources Code~~; Title 14, California Code of Regulations, sections 15091 and 15093~~.

§ 174~~9~~~~68~~. Notice of Decision; Filing with Resources Agency.

The executive director shall file a notice of the final decision with the Secretary of the Natural Resources Agency.

Note: Authority cited: Section 25541.5, Public Resources Code. Reference: Sections 21080.5 and 25541.5, Public Resources Code.

Article 3.1. Post-Certification Activities

§ 1751. Post-Certification List Serve.

After the final decision is issued, the commission shall create an electronic list serve related to post-certification activities. In closing the application for certification proceeding the commission shall file a notice in the application for certification project docket providing instructions on how to subscribe to the list serve.

Note: Authority cited: Sections 25213, 25218(e) and 25541.5, Public Resources Code. Reference: Sections 25523, 25532 and 25534, Public Resources Code.

§ 1769. Post Certification Petition for Changes in Project Design, Operation or Performance and Amendments ~~and Changes~~ to the Commission Decision.

(a) ~~Project Modifications~~ Change in Project Design, Operation, or Performance Requirements.

(1) After the final decision is effective under section 1720.4, the ~~applicant~~ project owner shall ~~file with~~ petition the commission ~~a petition~~ for approval of any ~~modifications~~ change it proposes to the project design, operation, or performance requirements. The petition must contain the following information:

(A) A complete description of the proposed ~~modifications~~ change, including new language for any conditions of certification that will be affected;

(B) A discussion of the necessity for the proposed ~~modifications;~~ change and

~~(C) If the modification is based on information that was known by the petitioner during the certification proceeding, an explanation why the issue was not raised at that time;~~

~~(D) If the modification is based on new information that changes or undermines the assumptions, rationale, findings, or other bases of the final decision,~~ an explanation of why the change should be permitted;

(C) A description of any new information or change in circumstances that necessitated the change;

~~(E)~~(D) An analysis of the ~~impacts the modification~~ effects that the proposed change to the project may have on the environment and proposed measures to mitigate any significant ~~adverse impacts~~ environmental effects;

~~(F)~~(E) ~~A discussion~~ An analysis of ~~the impact of~~ how the ~~modification on~~ proposed change would affect the ~~facility's ability to comply~~ project's compliance with applicable laws, ordinances, regulations, and standards;

~~(G)~~(F) A discussion of how the ~~modification affects~~ proposed change would affect the public;

~~(H)~~(G) ~~A list of property owners potentially affected by the modification; and~~ A list of current assessor's parcel numbers and owners' names and addresses for all parcels within 500 feet of any affected project linears and 1000 feet of the project site;

~~(I)~~(H) A discussion of the potential effect of the proposed change on nearby property owners, residents, and the public ~~and the parties in the application proceedings.~~; and

(I) A discussion of any exemptions from the California Environmental Quality Act, commencing with section 21000 of the Public Resources Code, that the project owner believes may apply to approval of the proposed change.

~~(2) Within 30 days after the applicant files a petition pursuant to subsection (a)(1) of this section, the staff shall review the petition to determine the extent of the proposed modifications. Where staff determines that there is no possibility that the modifications may have a significant effect on the environment, and if the modifications will not result in a change or deletion of a condition adopted by the commission in the final decision or make changes that would cause the project not to comply with any applicable laws, ordinances, regulations, or standards, no commission approval is required and the staff shall file a statement that it has made such a determination with the commission docket and mail a copy of the statement to each commissioner and every person on the post-certification mailing list. Any person may file an objection to staff's determination within 14 days of service on the grounds that the modification does not meet the criteria in this subsection.~~

(2) Within 30 days after a petition is filed and the applicable fee is paid, staff shall review the petition to determine the extent of the proposed change and prepare a summary of the petition. The summary shall be concise and understandable, shall describe the content of the petition using the applicant's own words whenever possible, and shall include a description of the commission's procedures concerning proceedings on the petition, as appropriate. As soon as practicable after preparing the summary, staff shall file the summary and provide a copy to each property owner described in subdivision (a)(1)(G) with instructions on how to receive future filings.

(3) Staff Approval of Proposed Change.

(A) Staff shall approve the change where staff determines:

(i) that there is no possibility that the change may have a significant effect on the environment, or the change is exempt from the California Environmental Quality Act;

(ii) that the change would not cause the project to fail to comply with any applicable laws, ordinances, regulations, or standards; and

(iii) that the change will not require a change to, or deletion of, a condition of certification adopted by the commission in the final decision or subsequent amendments.

(B) Staff, in consultation with the air pollution control district where the project is located, may approve any change to a condition of certification regarding air quality, provided:

(i) that the criteria in subdivisions (a)(3)(A)(i) and (ii) are met; and

(ii) that no daily, quarterly, annual or other emission limit will be increased as a result of the change.

(C) Staff shall file a statement summarizing its actions taken pursuant to subdivisions (a)(3)(A) or (B). Any person may file an objection to a staff action taken pursuant to subdivisions (a)(3)(A) or (B) within 14 days of the filing of staff's statement. Any such objection must make a showing supported by facts that the change does not meet the criteria in this subdivision. Speculation, argument, conjecture, and unsupported conclusions or opinions are not sufficient to support an objection to staff approval.

(D) Staff may submit to the commission, for consideration and a decision, a proposed change that could otherwise be approved by staff under subdivisions (a)(3)(A) or (B).

(~~3~~4) Commission Approval of Proposed Change.

(A) If staff determines that a ~~modification~~ change does not meet the criteria for staff approval set forth in ~~subsection~~subdivision (a)(~~2~~3), or if staff submits the proposed change to the commission for consideration under subdivision (a)(3)(D), or if a person ~~objects to a staff determination~~ files an objection that ~~a modification does meet the criteria in~~ complies with ~~subsection~~ subdivision (a)(~~2~~3)(C), the petition ~~must~~ shall be ~~processed as a formal amendment to the decision and must be approved~~ considered by the ~~full~~ commission at a noticed business meeting or hearing. The commission shall issue an order approving, rejecting, or modifying the petition ~~at the scheduled hearing, unless it decides to~~ or assign the matter for further ~~hearing~~ proceedings before the ~~full~~ commission or an assigned committee or hearing officer. The commission may approve such ~~modifications~~ a change only if it can make the ~~following~~ findings~~:~~

~~(A) the findings~~ specified in section 1748(b)~~(5)~~, if applicable~~;~~.

~~(B) that the project would remain in compliance with all applicable laws, ordinances, regulations, and standards, subject to the provisions of Public Resources Code section 25525;~~

~~(C) that the change will be beneficial to the public, applicant, or intervenors; and~~

~~(D) that there has been a substantial change in circumstances since the Commission certification justifying the change or that the change is based on information which was not known and could not have been known with the exercise of reasonable diligence prior to Commission certification.~~

(B) ~~The staff shall compile and periodically publish a list of petitions filed under this section and their status~~. In any matter assigned for further proceedings pursuant to subdivision (a)(4), the presiding member shall establish the schedule and process for the proceeding.

(5) The petitioner may withdraw its petition from consideration by the commission in the manner described for withdrawal of notices or applications in section 1709.8.

(b) Change in Ownership or Operational Control

(1) A petition to transfer ownership or operational control of a facility shall contain the following information:

(A) a discussion of any significant ~~changes~~ change in the operational relationship between the owner and operator;

(B) a statement identifying the party responsible for compliance with the commission's conditions of certification; and

(C) a statement verified by the new owner or operator in the ~~same~~ manner ~~as provided~~ described in ~~Section~~ section 1707 that the new owner or operator understands the conditions of certification and agrees to comply with those conditions.

(2) ~~The commission may approve changes in ownership or operational control after fourteen days notice.~~ Staff may approve a change in ownership or operational control by filing a statement approving the change no sooner than 14 days after filing of the petition. Any person may file an objection to a staff approval within 14 days of the filing of staff's statement. Any such objection must state the grounds for the objection. If a person files such an objection, the petition shall be considered by the commission at a noticed business meeting or hearing.

Note: Authority cited: Sections 25213, 25218(e) and 25541.5, Public Resources Code. Reference: Sections 25523, 25532 and 25534, Public Resources Code.

1769.1. Staff and Project Owner Jointly Initiated Amendment.

(a) Staff and a project owner may jointly initiate an amendment to a final decision adopted under this chapter, provided that the purpose of the proposed amendment is to update the decision to reconcile the conditions of certification with other legal requirements or changes to compliance protocols or methodologies, or to modify a condition that is moot, impossible, or otherwise unnecessary to avoid potentially significant effects and remain in compliance with all applicable laws, ordinances, regulations, and standards.

(b) An amendment jointly initiated by staff and the project owner shall include the information specified in section 1769(a)(1), and be accompanied by a summary of the amendment consistent with the requirements of section 1769(a)(2). The amendment shall be considered by the commission in a manner consistent with the process set forth in section 1769(a)(4). The amendment shall not be approved by the commission unless the agreement of the project owner with the proposed amendment is reflected in the joint proposal presented to the commission for approval.

(c) An amendment initiated jointly by staff and a project owner pursuant to this section shall not be subject to section 25806(e) of the Public Resources Code.

Note: Authority cited: Sections 25213, 25218(e) and 25541.5, Public Resources Code. Reference: Sections 25523, 25532, 25534, and 25806, Public Resources Code.

§ 1770. Compliance Verification.

(a) The Commission shall provide adequate monitoring of all conditions and measures set forth in the final decision required to mitigate potential impacts and to assure that the facility is constructed and operated in compliance with all applicable laws including, but not limited to, air quality, water quality, and public health and safety laws, ordinances, regulations, and standards for all projects certified. A compliance plan shall be adopted by the commission as part of the certification decision. The plan shall include the following:

(1) A set of general compliance conditions setting forth and explaining the duties and responsibilities of the staff, the licensee, delegate agencies, and others; the procedures for settling disputes; the requirements for handling confidential records and maintaining the compliance record; and the requirements for verification, including periodic reports and any other administrative procedures that are necessary to verify that all the conditions will be satisfied.

(2) Condition(s) or mitigation measure(s) to be monitored;

(3) Method of monitoring or reporting including who will monitor or report, provisions for approving qualifications of the monitor, when the monitoring or reporting will be done, and the frequency of site visits, if any.

(b) To the extent permitted by law, the Commission may delegate authority for compliance verification to state and local agencies which have expertise in subject areas where conditions of certification have been established. Such agencies may include the local building department and the local air quality management district.

(c) If a delegate agency is unwilling or unable to participate in this program, the Commission staff shall establish an alternative method of verification.

(d) The verification provisions in a siting decision are intended to verify compliance with the actual conditions of certification. The staff, after notice to the licensee, may modify the verification provisions as necessary to enforce the conditions of certification without requesting an amendment to the decision, provided that the verification change does not conflict with the conditions of certification. If a licensee or any other person objects to the modification, he or she shall be entitled to a public hearing on the matter before the Commission.

Note: Authority cited: Sections 25213, 25218(e) and 25541.5, Public Resources Code. Reference: Sections 25523, 25525, 25532 and 25534, Public Resources Code.

Article 4. Additional Provisions Applicable to Geothermal Notices and Applications

A. General Provisions

§ 1801. Applicability of Regulations.

Except as otherwise provided in this article, the provisions of Articles 1, 2, and 3 of this subchapter shall apply to the consideration of all notices and applications for geothermal power plants, associated transmission lines, and appurtenant facilities.

Note: Authority cited: Sections 25213, 25218(e), 25539 and 25541.5, Public Resources Code. Reference: Sections 25540 and 25540.5, Public Resources Code.

§ 1802. Policies of the Commission on the Siting of Geothermal Power Plants.

In carrying out the provisions of this article it shall be the policy of the commission:

(a) To promote the accelerated development of economically feasible and environmentally acceptable geothermal power plants;

(b) To implement a 12-month certification process for the consideration of geothermal applications for projects for which a resource supply has been confirmed;

(c) To enhance public participation in decisions relating to the development of geothermal energy in California to ensure a thorough and balanced consideration of relevant issues;

(d) To assist and cooperate with local permitting agencies in the preparation of environmental documents relating to geothermal power plants, to encourage local agencies to prepare full-field environmental impact reports at the earliest practical time, to provide such agencies with technical and financial assistance wherever possible in the preparation of such reports; and

(e) To avoid the duplication of environmental analyses by coordinating with local, state, and federal agencies in the preparation of environmental documents, including the use of documents prepared by such agencies to the extent practicable.

Note: Authority cited: Sections 25218(e) and 25541.5 Public Resources Code. Reference: Sections 25540-25540.3 and 25540.5, Public Resources Code.

§ 1803. Alternative Certification Processes for Geothermal Power Plants.

(a) Eighteen-month certification process. The commission shall issue its decision on a geothermal notice as specified in Section 1727 of Article 2 within nine months from the date of accepting such notice, and except as provided in subsection (b), shall issue its final decision on an application within nine months from the date of acceptance of the application, or at such later times as are mutually agreed upon by the commission and the applicant.

(b) Twelve-month certification process. If the applicant can demonstrate at the outset of the proceedings that the project complies with the provisions of Public Resources Code Section 25540.2(a), the commission shall issue its decision within 12 months of the acceptance

of the application. Any application filed pursuant to Public Resources Code Section 25540.2(a) shall explicitly state that a commercial resource has been discovered and that a 12-month process is requested.

Note: Authority cited: Sections 25218(e) and 25541.5, Public Resources Code. Reference: Sections 25540, 25540.2(a) and 25540.3, Public Resources Code.

§ 1804. Special Geothermal Definitions.

In addition to the definitions contained in Section 1201 and unless otherwise indicated, the following definitions shall apply to this article.

(a) "Commercial quantities of a geothermal resource" means enough geothermal steam or hot water resources from a sufficient number of wells to support a reasonable conclusion that a proposed power plant will be able to achieve the applicant's estimated gross capacity over the life of the project.

(b) "Full-field environmental impact report" means an environmental impact report which considers in detail the impacts of the development of a geothermal field, as defined by the resource developer, including but not limited to the construction of well pads, the drilling and operation of geothermal wells, and the construction and operation of geothermal resource conveyance lines, and which generally considers the construction, operation, and maintenance of one or more geothermal power plants within such geothermal field.

(c) "Geothermal field" means the geographic area containing the wells that supply steam and/or hot water to one or more geothermal power plants proposed in a notice or application.

(d) "Geothermal power plant" means any thermal power plant, as defined under Section 25120 of the Public Resources Code, which uses geothermal resources as the principal energy source for the generation of electrical power.

(e) "Twelve month process" means the consideration, and the granting or denial of the certification, within 12 months from the filing of an application for a geothermal plant for which no notice is required pursuant to Public Resources Code Section 25540.2(a).

(f) "KGRA" means Known Geothermal Resource Area as defined by the United States Geological Survey.

(g) "Plant maturation period" means the initial break-in period for a geothermal power plant which includes the period from commencement of operation to the time required to achieve the anticipated capacity factor.

(h) "Reconnaissance survey" means a survey as defined by the Federal Power Commission in *Archaeological and Historical Investigation for Energy Facilities: A State of the Art*, 1977.

(i) "Resource conveyance line" means the pipelines that transport the steam and/or hot water from the well to the geothermal power plant or from the power plant to a holding pond for reinjection.

(j) "Thermal spring" means any natural or artificial spring outlet whose average temperature is at least 15° F above the mean annual temperature of the air at the same locality.

Note: Authority cited: Sections 25218(e) and 25541.5, Public Resources Code. Reference: Sections 25540-25540.4, Public Resources Code.

§ 1809. Determination of Availability of Commercial Resource.

(a) Within thirty (30) days of the filing of an application pursuant to Public Resources Code Section 25540.2(a) and Section 1803 of these regulations, the committee shall hold a hearing for the sole purpose of determining whether the proposed site is reasonably capable of supplying geothermal resources in commercial quantities. Such hearing shall be publicly noticed.

(b) The applicant shall present testimony, studies or other evidence in support of its contention that sufficient geothermal resources have been confirmed at the site. The staff shall also present its evaluation of the site's resource capabilities.

(c) The California Division of Oil and Gas (DOG) shall be requested to review the application and all well records filed with the division concerning wells completed at the site, and shall be requested to present at the hearing its conclusions, based on the professional experience of its personnel, as to whether the site is reasonably capable of providing geothermal resources in commercial quantities.

(d) If the commission determines that the site is reasonably capable of providing geothermal resources in commercial quantities, the application shall be processed in accordance with Section 1803(b) of these regulations.

(e) If the commission determines that the site is not reasonably capable of producing geothermal resources in commercial quantities, or that the applicant has failed to demonstrate that the site is reasonably capable of producing geothermal resources in commercial quantities, the applicant may withdraw the application or request that the application be treated as a notice filed pursuant to Section 1803(a). The document shall, as of the date such request is granted, be processed in accordance with Sections 1806 and 1807.

Note: Authority cited: Sections 25218(e) and 25541.5, Public Resources Code. Reference: Sections 25540.1 and 25540.2(b), Public Resources Code.

B. Delegation of Geothermal Power Plant Siting Authority to Local Government

§ 1860. Policy and Purpose.

(a) General. Pursuant to Section 25540.5 of the Public Resources Code, the commission is permitted to delegate its siting authority over geothermal power plants and related facilities to county governments which have adopted geothermal elements to their general plans.

(b) Policy. It is the policy of the California Energy Commission to delegate its geothermal power plant siting authority to county governments which have demonstrated a capability to expeditiously process applications for geothermal power plants and/or geothermal field development projects, provided, however, that such county governments have formally

adopted policies which are consistent with adopted policies of the commission with respect to the development of geothermal resources for the generation of electrical energy.

(c) Purposes. Delegation of the commission's geothermal power plant siting authority to county governments will maximize local control over development projects whose impacts are peculiarly local. The provisions of this article will ensure that local exercise of such control will occur in a manner that is consistent with the state's interests in a reliable supply of electrical energy and environmental maintenance. Further, a delegation pursuant to this article will vest permitting authority over both the geothermal field and the geothermal power plant in a single agency, thus allowing a consolidated review of all aspects of a geothermal project.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25540.5, Public Resources Code.

§ 1861. Counties Eligible to Petition for Delegation of Authority.

(a) Any county government which has adopted a geothermal element to its general plan may petition the commission for delegation of the commission's exclusive authority to certify geothermal power plants and related facilities vested in Section 25500 of the Public Resources Code.

(b) Two or more counties, each of which has adopted a geothermal element to its general plan and which have executed a joint powers agreement or its equivalent for the administration of such geothermal power plant siting authority as may be delegated by the commission, may jointly petition the Energy Commission for delegation of its exclusive authority to site its geothermal power plants and related facilities.

(c) Upon the delegation of geothermal power plant siting authority by the Energy Commission, the county government or governments which have petitioned for such delegation shall be exclusively responsible for administering and deciding upon all applications for geothermal power plants and related facilities which are wholly located within the territorial jurisdiction of the petitioning county or counties until such time as the authority delegated pursuant to this article shall have been revoked pursuant to the provisions of Section 1870.

(d) The provisions of this section shall not apply to any application for a geothermal power plant and related facilities which are not wholly located within the territorial jurisdiction of such counties that have been delegated siting authority pursuant to the provisions of this article. Applications for such facilities shall be filed with the commission.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25540.5, Public Resources Code.

§ 1862. Contents of Petition.

Every petition filed pursuant to Section 1861 shall contain all of the following:

(a) A resolution approving and directing the submission of the petition adopted by the county board of supervisors;

(b) A copy of the geothermal element and the date of adoption;

(c) A written statement from the Governor's Office of Planning and Research that the geothermal element complies with the office's guidelines and/or criteria for geothermal elements;

(d) A description of the policy statements contained in the geothermal element with respect to the development of geothermal resources for the generation of electrical energy;

(e) description of the procedures contained in the geothermal element for the implementation of the policies expressed in the element, and a discussion of the status of such implementation;

(f) A complete and detailed description of the program that the county seeks to have designated as an equivalent certification program for the orderly and efficient review of geothermal power plant applications. Such description shall indicate the manner in which the program complies with each of the requirements set forth in Section below;

(g) A detailed description of the procedures that will be employed to comply with the provisions of the California Environmental Quality Act (Public Resources Code Section 21000 et seq.);

(h) The level of staffing required to carry out the responsibilities delegated pursuant to this article;

(i) A discussion of any additional staffing required by the administering agency, including job descriptions and duration of need;

(j) A discussion of funding required by the administering agency to process applications in accordance with the provisions of this article; and

(k) Such additional information as the county desires to submit.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25540.5, Public Resources Code.

§ 1863. Equivalent Certification Program Requirements.

No county program shall be designated as an equivalent certification program unless it contains provisions for all of the following:

(a) Certification of geothermal areas as multiple facility sites, if so applied for;

(b) Distribution of all applications to the commission and to each federal, state, and local agency having jurisdiction or special interest in matters pertinent to the proposed site and related facilities, as well as provisions for receipt of and response to the comments and recommendations of each such agency;

(c) Preparation and distribution of a written decision on each power plant application. Such written decision shall contain each of the findings and conclusions required by Section 1745.5 of these regulations, and shall be based on the formal record of the proceeding;

(d) Public hearings, including provisions for adjudication of disputed issues of fact through testimony taken under oath and refutation by cross-examination;

(e) Formal intervention by any person with a legally recognizable interest in the outcome of the proceedings;

(f) Timely and orderly amendment of the program to reflect changes in law or commission certification requirements;

(g) Administration of and decision upon geothermal power plant applications within 12 months of the filing of such applications; and

(h) Appeal to the commission on any aspect of the decision of the county.
Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25540.5, Public Resources Code.

§ 1864. Commission Staff Analysis.

(a) The commission and its staff may participate in an aspect of county proceedings on an application for a geothermal power plant and related facilities if such application would have been filed with the commission but for the delegation of authority pursuant to this article.

(b) The Commission staff shall assist the county in assembling a record adequate to support findings on each of the following:

(1) Conformity of the site and related facilities with the 12-year forecast of statewide and service area electric power demands adopted pursuant to Section 25309(b) of the Public Resources Code; and

(2) Necessary modifications, mitigation measures, conditions or other specific provisions relating to the manner in which the proposed facilities are to be designed, sited, constructed and operated in order to assure reliability of operation, safety and environmental protection.

(c) The county may submit a written request for staff assistance in the technical evaluation of any issue presented in the proceedings, or in the conduct of the proceedings on the application. Staff may render such assistance as it deems appropriate, provided however, that it shall indicate in writing its intention to do so within fifteen (15) days of the receipt of the county's request.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25540.5, Public Resources Code.

§ 1865. Air Quality Determinations.

Whenever any county is administering an application for a geothermal power plant and related facility pursuant to authority delegated by the commission, the air pollution control officer shall prepare and submit to such county its determination of compliance as specified in Section 1744.5 within 180 days of the acceptance of the application.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25540.5, Public Resources Code.

§ 1866. Record of Proceedings.

The county counsel shall be responsible for ensuring the preparation of a record adequate to support all required findings and conclusions.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25540.5, Public Resources Code.

§ 1867. Commission Action on Petition.

(a) Within twenty (20) days of the filing of a petition pursuant to Section 1861, the executive director shall determine whether the petition contains the information specified in Section 1862.

(1) If the executive director determines that the petition is complete, he or she shall so certify in writing and shall inform the petitioner.

(2) If the executive director determines that the petition is not complete, it shall be returned to the petitioner with a statement of its defects. The petitioner may correct the petition and resubmit it at any time.

(b) Unless the petition has been returned pursuant to (a)(2) above, the commission shall, within sixty (60) days of the filing of the petition, convene two hearings to allow representatives of the county to explain each aspect of its proposed equivalent certification program, and to allow any interested party to offer testimony or comments. One (1) of the hearings shall be in the petitioner's county seat, and one (1) of the hearings shall be in the state capital, except where the petitioner's county seat is the state capital, in which case only one (1) such hearing, in the state capital, shall be required. There shall be no less than ten (10) nor more than forty-five (45) days, exclusive, between the dates of the two hearings. Such hearings shall be publicly noticed, and any person shall be entitled to offer testimony or comments.

(c) Within thirty (30) days of the conclusion of the hearing convened pursuant to (b) above, the commission shall issue its decision as to whether the county's program shall be designated as an equivalent certification program. The commission's decision shall include findings on the compatibility of commission and county policies pertinent to geothermal energy development, and on the county's technical and financial ability to carry out the responsibilities which may be delegated by the commission.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25540.5, Public Resources Code.

§ 1868. Appeals to Commission.

(a) Any party to county proceedings conducted pursuant to authority delegated by the commission may, within 30 days of the issuance of the county's written decision, or within 30 days of the disposition by that county of an appeal filed pursuant to county ordinances, appeal any aspect of the county decision to the commission.

(b) The appeal shall specify the bases therefore, and shall include a succinct summary of the evidence received by the county pertinent to the issues appealed, and shall specify the relief requested.

(c) The appeal shall include a copy of the administrative record of the county which has been certified by the county as complete.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25540.5, Public Resources Code.

§ 1869. Commission Action on Appeals.

(a) The commission shall, within 60 days of filing of the appeal, convene a hearing for the presentation of arguments on the appeal. In reviewing a factual issue, the commission shall determine whether, in light of the whole record, the record contains substantial evidence to support that aspect of the county decision which has been appealed.

(b) If the commission finds for the appellant, it shall take such action as it deems appropriate, including, but not limited to:

(1) Returning the case to the county for further proceedings as may be directed; or

(2) Conducting further evidentiary hearings before the commission; or

(3) Removing the case from the county for disposition by the commission.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25540.5, Public Resources Code.

§ 1870. Revocation of Delegation.

(a) The commission may, after public hearings, revoke its approval of a county's equivalent certification program whenever it finds that such program does not comply with current statutory requirements, duly adopted regulations of the commission, or that the program is not being effectively and efficiently administered.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25540.5, Public Resources Code.

Article 5. Small Power Plant Exemptions

§ 1934. Statement of Purpose.

It is the policy of the State Energy Resources Conservation and Development Commission to promote the development of electric energy supply technologies that prudently conserve and economically use energy resources. A major purpose of these regulations is to encourage the use of those technologies by expediting the procedures necessary for the approval and development of alternate sources of electric generation.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25541, Public Resources Code.

§ 1936. Scope Filing, Review and Distribution of Applications for Exemption.

(a) Any person who proposes to construct a thermal power plant with a generating capacity not exceeding 100 megawatts, or proposes a modification to an existing thermal power plant which will add generating capacity not exceeding 100 megawatts may apply for an exemption from the provisions of Chapter 6 of Division 15 of the Public Resources Code.

(b) Applications for exemption shall be filed as set forth in sections 1208, 1208.1, 1706 and 1707.

(c) The review of the application for exemption shall follow the requirements of the California Environmental Quality Act (Public Resources Code section 21000 et seq.) and the state CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3).

(d) Applications for exemption shall be distributed and comments requested from public agencies and tribal governments as set forth in sections 1713 and 1714.

(e) An applicant may withdraw an application for exemption as set forth in section 1709.8.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25541, Public Resources Code.

§ 1937. Staff as an Independent Party.

In carrying out its duties pursuant to this article, staff shall be an independent party and is not required to petition to intervene.

Note: Authority cited: Section 25213, Public Resources Code. Reference: Section 25217(b), Public Resources Code.

§ 1940. Information Requirements for ~~Notice of~~ Applications for Exemption.

~~(a) Upon receipt of an application the executive director in conjunction with the public adviser shall immediately take action to cause notice of the application and its date of receipt to be published in the commission's next meeting agenda and distributed to the public at large.~~

~~(b) The executive director shall transmit copies of the application to each member and ex officio member, the commission general counsel, the public adviser, the hearing officer, the Attorney General and all other persons who have requested in writing that a copy be provided.~~

~~(c) The executive director shall also transmit copies of the application to all federal, state, regional, and local agencies which have an interest in the matter and shall request that these agencies submit their written comments and recommendations on the application. Such comments shall be filed with the executive director no later than the date of the first hearing held pursuant to Section 1944 of these regulations.~~

The application for an exemption shall contain all the information specified by Appendix F and meet the general requirements set forth in section 1704(a).

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25541, Public Resources Code.

§ 1941. Obtaining Information.

Information necessary to complete an analysis of the application for an exemption may be obtained by following the requirements of section 1716, except that all requests for information shall be submitted no later than 60 days from the application for exemption's filing date or a later date as approved by the presiding member.

Note: Authority cited: Sections 25218(e) and 25541.5, Public Resources Code. Reference: Sections 25210, 25502, 25519(b) and 25541, Public Resources Code; and Section 11181, Government Code.

§ 1942. Termination of an Application for Exemption.

The application for exemption proceeding may be terminated by following the procedures set forth in section 1720.2.

Note: Authority cited: Sections 25213, 25218(e) and 25541.5, Public Resources Code. Reference: Sections 25210, 25216.5, 25519(b) and 25541, Public Resources Code.

§ 1943. Presentation of Evidence.

All testimony together with any other relevant documentary evidence, such as any environmental impact documentation or other environmental document prepared by the lead agency, may be offered by any party and shall be filed with the Docket Unit no later than ~~seven (~~7~~)~~ days prior to the hearing at which such testimony is to be offered, or at such other time as ordered by the presiding member.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25541, Public Resources Code.

§ 1944. Application for Exemption Proceedings and Hearings.

(a) A committee shall be appointed pursuant to Section 1204(a) to oversee ~~handle~~ the proceedings. ~~A hearing officer may also be appointed to assist the committee in the conduct of the proceeding~~. The presiding member shall set the time and place for hearings.~~,~~ ~~conferences, and site visits pursuant to this Section provided, however, that~~

(b) Unless otherwise directed by the presiding member, evidentiary hearings on the application shall commence no later than ~~one hundred (~~100~~)~~ days after the filing of the application.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25541, Public Resources Code.

§ 1945. ~~Final Argument~~ Proposed and Final Decision.

(a) After the hearings conducted pursuant to Section 1944 of these regulations, the committee shall prepare and file a proposed decision on the application. ~~The proposed decision shall be distributed to the members, ex officio members, general counsel, the public adviser, the applicant, all intervenors, and any other persons designated by the presiding member.~~

(b) ~~Within twenty-one (21) days a~~After publication of the proposed decision, a hearing shall be held before the ~~full~~ commission ~~for final arguments on the formal record of the proceedings. After the hearing, the commission shall adopt, or amend and adopt, the proposed decision, which shall thereupon become final~~. The final decision shall be ~~rendered~~ issued by the commission within ~~one hundred thirty-five (~~135~~)~~ days after the filing of the application or at such later time as deemed necessary to permit full and fair examination of the issues.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25541, Public Resources Code.

§ 1946. Content of Decision.

~~(a)~~ The decision on the application shall either approve or disapprove the application and shall include a statement of reasons supporting the decision. The decision shall include, in the affirmative or negative, the findings required by Public Resources Code Section 25541.

Note: Authority cited: Section 25218, Public Resources Code. Reference: Section 25541, Public Resources Code.

§ 1947. Modifications of Deadlines.

The applicant may at any time stipulate to a more lengthy time schedule than is provided in these regulations in order to permit full and fair exploration. Such stipulation shall be made in writing to the committee.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25541, Public Resources Code.

Article 6. Powerplant and Transmission Line Jurisdictional Investigations

A. Definitions

§ 2001. Definitions.

In addition to the definitions found in Chapter 2 (beginning with Section 25100), Division 15, Public Resources Code and the definitions found in Section 1201 of chapter 2, the definitions contained in this article shall apply to all commission determinations of megawatt capacity thresholds, including the 50 megawatt jurisdictional threshold, the 100 megawatt threshold for a small powerplant exemption, and the 300 megawatt threshold for a small powerplant exemption, and the 300 megawatt threshold for a cogeneration or solar thermal powerplant exemption from the notice of intention requirement.

Note: Authority cited: Sections 25213, 25218(e) and 25539, Public Resources Code. Reference: Section 11180, Government Code; and Sections 25110, 25120, 25123, 25210, 25500 and 25517, Public Resources Code.

§ 2003. Generating Capacity.

(a) The "generating capacity" of an electric generating facility means the maximum gross rating of the plant's turbine generator(s), in megawatts ("MW"), minus the minimum auxiliary load.

(b) The "maximum gross rating" of the plant's turbine generator(s) shall be determined according to this subdivision. If there is more than one turbine generator, the maximum gross rating of all turbine generators shall be added together to determine the total maximum gross rating of the plant's turbine generator(s).

(1) The maximum gross rating of a steam turbine generator shall be the output, in MW, of the turbine generator at those steam conditions and at those extraction and induction conditions which yield the highest generating capacity on a continuous basis.

(2) The maximum gross rating of a combustion turbine generator shall be the output, in MW, of the turbine generator at average operating site conditions, with the proposed fuel type, and at those water or steam injection flow rates, which yield the highest generating capacity on a continuous basis.

(A) The average dry bulb temperature and relative humidity of the inlet air at the plant site shall be calculated using 10-year data for temperature and relative humidity from the nearest meteorological data point, using the most recent published data from the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE), the National Oceanographic and Atmospheric Administration (NOAA), the U.S. Air Force, or commercial airport weather stations.

(B) The barometric pressure at the site shall be one standard atmosphere, corrected for actual site elevation.

(3) The maximum gross rating cannot be limited by an operator's discretion to lower the output of the turbine generator(s) or by temporary design modifications that have no function other than to limit a turbine generator's output.

(4) The maximum gross ratings specified in the overall plant heat and mass balance calculations shall be subject to verification by commission review of the steam or combustion turbine generator manufacturer's performance guarantee, specifications and procurement contract, if available.

(c) The "minimum auxiliary load" means the electrical rating (in MW) of the sum of the minimum continuous and the average intermittent on-site electrical power requirements necessary to support the maximum gross rating as defined in subsection (b) of this regulation and which are supplied directly by the power plant. For geothermal projects, the minimum auxiliary load includes the minimum electrical operating requirements for the associated geothermal field which are necessary for and supplied directly by the power plant. Discretionary loads, i.e., those which can be curtailed without precluding power generation, are not included in minimum auxiliary loads.

Note: Authority cited: Sections 25213, 25218(e) and 25539, Public Resources Code. Reference: Sections 25110, 25120, 25123, 25500 and 25517, Public Resources Code.

B. Expedited Clearance Process

§ 2010. Petition For Expedited Clearance; Filing.

(a) In lieu of filing a request for a jurisdictional determination pursuant to Section 1234, the owner or operator of a proposed powerplant may file a petition requesting expedited clearance of the proposed powerplant on the basis that it has a generating capacity less than 50 MW. The purpose of this expedited clearance process is to resolve jurisdictional issues involving the definition of generating capacity under Section 2003. All other jurisdictional issues must be processed under Section 1234.

(b) All petitions for expedited clearance must be filed with the Docket Unit in accordance with Section 1208 and shall include, but not be limited to, the following information:

(1) a description of the exact location of the proposed powerplant;

(2) a description of the ownership and control of the proposed powerplant;

(3) the generating capacity of the proposed powerplant, including detailed equipment and operation design specifications and auxiliary loads necessary to determine the generating capacity under section 2003;

(4) the schedule for developing the proposed powerplant;

(5) the name, address, and telephone number of the person or persons responsible for reporting the information;

(6) a power sales agreement, if available, showing the amount of power to be sold from the project, and to whom the power is being sold;

(7) a declaration dated and signed under penalty of perjury by the petitioner or in the case of a corporation or business association by an authorized officer thereof that the facts stated in the petition are true and correct;

(8) the date on which the petition is filed; and

(9) other information relevant to the issue of generating capacity.

Note: Authority cited: Sections 25213, 25218(e) and 25539, Public Resources Code. Reference: Section 11180, Government Code; and Sections 25110, 25120, 25123, 25210, 25500 and 25517, Public Resources Code.

§ 2011. Notice of Petition for Expedited Clearance.

(a) Within 14 days after a petition is filed, the Executive Director shall determine whether the petitioner has filed all of the information required in section 2010. If the petition is incomplete, the Executive Director shall specify the items required to make the petition complete.

(b) Within 14 days after the petition is determined to be complete, the Executive Director shall provide notice of the filing of the petition in the agenda prepared for regularly scheduled commission meetings pursuant to Sections 1103 and 1104.

(c) The Public Adviser shall ensure that adequate notice is given to the public of all petitions filed under this article.

Note: Authority cited: Sections 25213, 25218(e) and 25539, Public Resources Code. Reference: Section 11180, Government Code; and Sections 25210, 25214, 25222 and 25500, Public Resources Code.

§ 2012. Clearance Order.

(a) If no request for a jurisdictional determination pursuant to Section 1234 is filed within 30 days after distribution of the agenda containing the notice of filing of the petition, then a clearance order shall be placed on the consent calendar for the next available commission meeting, subject to the limitation in subdivision (b) below.

(b) If the proposed powerplant is not constructed and operated substantially in conformance with the description provided by the owner or operator in the petition for expedited clearance, then the commission may, on its own motion or upon the motion of any person, reconsider its jurisdiction over the powerplant.

Note: Authority cited: Sections 25213, 25218(e) and 25539, Public Resources Code. Reference: Section 11180, Government Code; and Sections 25110, 25120, 25123, 25210, 25500 and 25517, Public Resources Code.

Appendix A

Information Requirements for a Nongeothermal Notice of Intention

(a) In a section entitled "Project Description," the notice shall contain:

(1) A brief, summary description of the alternative site and related facility proposals, including the general location of each site or potential transmission corridor; the type, size, and capacity of the generating or transmission facilities; fuel, water supply, pollution control systems and other general characteristics. The description shall indicate precisely what sites and related facilities the applicant proposes to have approved by the commission.

(2) A proposed time schedule outlining the applicant's estimates for obtaining regulatory approvals, starting and completing construction, initial start up, and full-scale operation of the proposed facilities.

(b) In a section entitled "Need for Facilities," the notice shall contain:

(1) A summary description outlining the reasons why the applicant believes that new or additional facilities should be added to the applicant's electrical system, indicating whether the facilities are being proposed to meet projected capacity or energy deficits, to displace existing

units scheduled for retirement, to meet requirements for additional reserves, or other justification for proposing new or additional capacity.

(2) A table showing the expected capacity and energy levels, adopted by the commission pursuant to Section 25309 of the Public Resources Code, for the general period in which the facilities are proposed. Where appropriate, include a table of, and explanation for, any adjustments to the adopted capacity and energy levels which are necessary to derive the applicant's service area requirements.

(3) A discussion indicating the amount or percentage of reserve capacity which the applicant believes is appropriate, including a description of the controlling criterion for determining the reserve margin, a discussion of why the applicant believes the indicated reserve margin is appropriate, and a discussion of how the indicated margin was derived.

(4) A table and summary description of the generating resources and electricity supplies which are likely to be available to the applicant's service area in the general time period proposed for initial operation of the facilities, including an explicit identification of transfer capabilities from outside the service area, and a summary of facilities operated or proposed by the applicant or by other entities within the service area.

(5) A discussion identifying and explaining any major uncertainties, such as delays in the construction or licensing of major planned resources or uncertainty with respect to contractual arrangements for transfer capabilities, which may affect the need for the proposed facilities.

(6) Tables showing the capacity and energy balances, projected deficits or excesses, and resulting reserve margins which reflect the applicant's expectations for electricity supply and demand within the general period for which the facilities are proposed.

(7) If the need is based in whole or in part on the proposed retirement or displacement of existing facilities, a discussion identifying such facilities and briefly explaining the reasons for their proposed retirement or displacement.

(8) If the need is based on factors other than projected capacity or energy deficits (taking into account reserve requirements), a discussion of the basis for the need and its conformance with the forecast assessment and any other criteria for determining need adopted in the most recent biennial report. If the need is based upon contingency planning, an explicit discussion of the nature and impact of the possible contingencies and their likelihood, an indication of when it may be determined whether the contingencies will or will not occur, and a schedule showing the earliest (or latest, if appropriate) date on which the proposed facilities should be operating given the possible contingencies.

(c) In a section entitled "Selection of Facilities," the notice shall contain:

(1) A discussion of the reasons why the principal generating technology was chosen from among those technologies most recently determined as commercially available by the commission pursuant to Public Resources Code Section 25309(j). Indicate the effect, if any, of the following factors on the selection of the facility type: comparative economics, comparative reliability, comparative health and safety aspects or environmental impacts, availability of appropriate sizes, comparative operating flexibility, lead time for approval and construction, and any other factor considered important by the applicant in making the selection.

(2) A discussion of the reasons for selecting the size of the facilities proposed in the notice. Indicate the effect, if any, of the following factors on the selection of facility size: need for capacity or energy; comparative reliability of different sizes, overall impact on system reliability, or reserve requirements of different sizes; comparative safety of different sizes; economies or diseconomies of scale associated with different sizes; commercial availability of different sizes; and other factors considered important by the applicant in the selection.

(3) A summary description of the preliminary design of the proposed facilities, specifically including the power generation, cooling, pollution control, fuel handling, water supply and treatment, safety, emergency, and auxiliary systems; and a summary of the proposed methods of construction and operation.

(d) In a section entitled "General Acceptability," the notice shall contain:

(1) For any technology not previously found to be commercially available as most recently determined by the commission pursuant to Public Resources Code Section 25309(j), a discussion of the reasons why the applicant expects the technology to be available in the time period proposed for the facility.

(2) A discussion of the economic comparability of the proposed facilities based on information available to the applicant on comparative costs of commercially available generating technologies.

(3) A discussion of any significant unresolved technical, environmental, or health and safety or other issues, affecting the ability to use the proposed technologies at each of the sites, which have been identified in the most recent biennial report, or which are otherwise known to the applicant. The discussion should include or refer to any information which the applicant believes is relevant to resolving the question or issues identified.

(4) A summary discussion explaining (with reference to parts (1) through (3) above) why the applicant believes the facilities proposed should be found acceptable.

(e) In a section entitled "Transmission Needs," the notice shall contain:

(1) A description in general terms of any new or additional transmission facilities, powerlines, substations, switchyards, or other transmission equipment, whether or not within the exclusive permit authority of the commission, which the applicant believes will be required to carry electrical power from the proposed power plant at each of the sites presented in the notice to the principal load centers to be served by the new power plant. The information should include all potential corridors under consideration, approximate lengths of each corridor being considered, and a summary of the preliminary estimates of the costs of lines, stations and other equipment that are being considered.

(2) A discussion of the analyses, load-flow studies, or other considerations which the applicant believes justify the need for the additional transmission equipment under consideration, the relative merits of the alternative principal points of junction with the existing transmission system being considered, and the relative merits of the alternative capacity or voltage levels being considered for the proposed power lines.

(3) A discussion of the extent to which the consideration of alternative corridors or proposed capacity and voltage levels has taken or will take into account the future transmission

needs created by additional generating facilities planned by the applicant or any other entity proposing generating facilities in the same general area.

(4) A discussion summarizing the principal advantages and disadvantages to the environment of each of the alternative transmission proposals under consideration by the applicant. The discussion shall extend only to the functional point of delivery of the power to the interconnected system, and should include an identification of areas in the vicinity of the proposed corridors where important social, aesthetic, historical, or recreational resources, or scarce, unique, or specially protected resources (including archaeological sites, endangered species, unique recreational areas, and protected biological areas) may be adversely affected. The discussion should indicate the measures being considered by the applicant to avoid or mitigate the principal adverse effects identified in the discussion.

(f) In a section entitled "Safety and Reliability," the notice shall contain:

(1) A preliminary description of any fuels, emissions (except for air quality emissions), wastes, or other toxic or hazardous substances associated with the proposed facility which may have an effect on safety and reliability; a discussion of the principal adverse effects of such substances on safety and reliability; and a discussion of the measures proposed or being considered by the applicant to ensure the safe handling, control, storage, removal, or disposal of such substances.

(2) A discussion of the likelihood that the measures described in part (1) will be able to comply with existing health and safety standards.

(3) A report which describes the seismic, other natural hazards, and man-made hazards associated with each of the proposed sites, discusses the degree to which such hazards could cause secondary hazards at the proposed facilities (e.g., fuel spills, structural collapse, increased emissions including radiological, explosions, etc.) and discusses the alternative levels of design being considered to safeguard safe and reliable operation in light of such hazards. The report should describe special design features being considered to protect against seismic and other potential natural hazards and indicate the relative degrees of safety from such hazards that can be achieved by the design features being considered.

(4) A description of the principal emergency systems and safety precautions proposed or being considered by the applicant, and a discussion of the nature of the hazards for which the systems or precautions are provided. The description need not duplicate the discussion of special design features in part (3) or measures discussed in other parts.

(5) If a nuclear power plant is proposed:

(A) A description of the methods proposed or being considered to prevent illegal diversion of nuclear fuels and waste, and to control density of population in areas surrounding each proposed site.

(B) A description of the facilities upon which the applicant proposes to rely for reprocessing or storage of spent nuclear fuel rods from the nuclear reactor. This description shall include an estimate of the volume of spent fuel generated by the reactor over its design life, the particular technology likely to be utilized for such storage or reprocessing, the anticipated on- or off-site facilities to be utilized, the date on which those facilities have been or are likely to be licensed and in operation, and the anticipated means of transporting and storing the spent fuel rods after removal from the reactor.

(C) A description of the emergency response capabilities that would be required of local communities surrounding each of the proposed sites in order to comply with any provisions of federal or state law in the event of an accidental release of radioactivity from the facilities.

(6) A description of the principal adverse effects on safety and reliability associated with other aspects of the fuel cycle, and which are directly traceable to the proposed facilities.

(g) In a section entitled "System Reliability," the notice shall contain:

(1) A discussion indicating the degree of reliability which the applicant believes the proposed facilities are capable of achieving. The discussion should include an estimate of the expected annual capacity factor for the initial operating years of the facilities and an estimate of the average annual capacity factor over the expected life of the facilities. Estimated capacity factors may be supported by information on forced outage rates and capacity factors actually experienced by comparable facilities elsewhere (if any) or by a discussion of other factors which support the applicant's expectations on reliability where data from actual operating experience of comparable facilities is not readily available. For purposes of this subsection, "comparable facilities" means facilities whose principal generating technology and fuel type, generating capacity, and mode of operation is similar to those of the proposed facilities. The discussion should indicate the basis for reliability expectations for any new or innovative pollution control, cooling water or other principal systems, even where the reliability of the principal generating technology is considered proven, and should identify any major uncertainties or unproven aspects of such new or innovative systems.

(2) An assessment of the long-term availability of the fuel or fuels proposed for the facilities, at prices consistent with those assumed in subsection (h), and a discussion of the principal uncertainties in providing assurance of a reliable supply of fuel over the expected operating life of the facility. If the facilities are capable of using multiple fuels, the extent of such fuel flexibility should be discussed, along with its impact on long-term reliability. The applicant may discuss the relative merits, costs, and difficulties in initially designing the facility to accept multiple fuels versus modifying the facility for such purposes at a later time.

(3) A discussion of the probable effect of the proposed facilities, including transmission facilities, on the overall reliability of the applicant's service system. The discussion should indicate the effect of the alternative plant sizes or transmission voltage levels being considered on the applicant's determination of "loss of load probability," "largest contingency," or any other reliability criterion or determinant of needed reserve margins.

(h) In a section entitled "Financial Impacts," the notice shall contain:

(1) A discussion of the financial requirements for constructing and operating the proposed facilities, and a table summarizing capital requirements and operating expenses, and their principal components. The discussion should indicate and explain the basis for any assumed escalation rates and costs of capital, fuel, or other principal components. Significant cost differences between alternative sites and facilities should be identified.

(2) A summary of the cost of the installed generating capacity (expressed in $/KW) and of the cost of supplying energy at the busbar (expressed in ¢H /Kwhr.); a list of principal cost components, an explanation of the source or derivation of each, and the calculations used to arrive at the summary costs above; a discussion of any major uncertainties in the cost figures used or assumptions relied upon.

(3) A discussion of proposed methods for financing the proposal.

(i) In a section entitled "Proposed Sites," the notice shall contain:

(1) The location of each site and related facility proposed in the notice on a location map and described by sections, range, township, and county. The map should also indicate the various transmission corridors under consideration by the applicant and the location of other transmission facilities and equipment being considered and identified pursuant to subsection (e)(1).

(2) Photographic representations adequately depicting the visual appearance of each power plant site and its immediate surroundings.

(3) A brief description of the applicant's legal interest in each power plant site proposed.

(4) A description, including artists drawings, of the proposed location of facilities and structures on each site.

(j) In a section entitled "Site Suitability," the notice shall contain (separate sections may be submitted for each alternative site proposed):

(1) A brief description of the environmental setting for each site, a summary discussion of the general suitability of each alternative site to accommodate the facilities proposed in the notice, and a summary of the principal environmental, economic, and technological advantages and disadvantages of each alternative site.

(2) A preliminary statement of the principal environmental impacts of the proposed facilities at each site on areas of special environmental concern, including, but not limited to areas prohibited as power plant sites pursuant to Section 25527 of the Public Resources Code, areas designated by the Coastal Commission or BCDC or within their jurisdiction, areas identified for potential wilderness designation or other protective designation, and agricultural areas; and a preliminary statement of the principal environmental impacts on biological resources, including especially rare and endangered species, livestock, and crops.

(3) A preliminary statement of the principal environmental impacts on human health which may result from air and water pollutants discharged from the facility, toxic and other hazardous materials stored or used at the site, wastes created by the facility, or any other substance associated with the facility. The statement shall include all regulated pollutants and substances; for nonregulated pollutants and substances, the statement shall include a summary of any findings and conclusions made by the commission in any generic assessment of the health effects of such substances.

(4) A preliminary discussion of the principal impacts on human resources, including major impacts on aesthetic, historical, cultural, archaeological, and recreational resources.

(5) A discussion of the principal social and economic impacts of constructing and operating the facilities at each site on the surrounding communities. The discussion should include anticipated impacts on public institutions such as schools, and on public services, housing, employment and other community resources during construction and the impact on tax bases and other community aspects after construction.

(6) A preliminary discussion indicating the extent to which various measures being considered by the applicant are likely to mitigate the impacts identified under parts (2) through (5).

(7) A general discussion of the compatibility of the proposed facilities with present and expected land uses at each site, including conformity with any long-range land use plans adopted by any federal, state, local, or regional planning agency. The discussion should identify the need, if any, for variances at any of the sites, or any measures that would be necessary to make the proposals conform with permitted land uses.

(8) A description of the principal and alternative (if any) sources of water proposed or being considered by the applicant for power plant cooling and other purposes; a description of the quality of water being considered and a general description of any treatment processes which may be necessary to make the water suitable for cooling or other uses at the site; a description of total amounts of such water that will be required each year and on any given day; a general description of any conveyance systems that will be required to carry the water from its source to the site and return it to a disposal or discharge area; the location and identity of any area being considered for disposal or discharge of water from the site; and a description of any treatment processes that may be necessary to make the water acceptable for discharge or disposal. The applicant should also describe any other major water facilities, including coolant outfalls, ponds, lakes, or towers, that may be associated with the proposed facilities, and discuss the principal impacts, if any, of these facilities on the physical and human environment.

(9) A land use map which indicates noise sensitive receptors or groups of receptors in the vicinity of the proposed site and related facilities, including anticipated receptors based on future land uses identifiable from public documents at the time of submission.

(k) In a section entitled "Applicable Standards," the notice shall contain:

(1) A list of federal, state, regional, and local agencies and their standards, ordinances, or laws, including long-range land use plans adopted by the state or by any local or regional planning agency, that are applicable to each site and related facility, including those which would be applicable but for the exclusive authority of the commission to certify sites and related facilities. The list should include a brief description of the applicability of such standards, ordinances, laws, or plans for each agency, and citations for each.

(2) To the extent not discussed in previous sections, discussion of the likelihood of the conformity of the proposed facilities with remaining laws, regulations, ordinances and standards of particular importance in assessing the acceptability of the sites and related facilities. Indicate those areas for which conformity with applicable standards cannot be determined at this time and provide a preliminary schedule for the resolution of such remaining issues.

(l) In a section entitled "Air Quality," the notice shall contain:

(1) A project description including typical fuel type and characteristics (BTU content, maximum sulfur and ash content), design capacity, proposed air emission control technologies, stack parameters (assumed height, diameter, exhaust velocity and temperature) and operational characteristics (heat rate, expected maximum annual and daily capacity factor). This information may be based upon typical data for a facility of the proposed type and design.

(2) A description of cooling systems, including approximate drift rate, water flow and water quality (TDS content).

(3) A projection of facility-related emissions from the stack and combustion system, from cooling towers and from associated fuel and other material handling, delivery and storage systems to the extent that the applicable new source review rule requires attributing these sources to the proposed project. The emissions discussion should include a discussion of the basis of the estimate, such as test results, manufacturers' estimates, extrapolations and all assumptions made.

(4) A list of all applicable air quality rules, regulations, standards and laws.

(5) A statement, including the reasons therefore, of what the applicant considers best available control technology as defined in the applicable district's new source review rule.

(6) Existing baseline air quality data for all regulated pollutants affected by the proposed facility including concentrations of pollutants, an extrapolation of that data to the proposed site, and a comparison of the extrapolated data with all applicable ambient air quality standards. This discussion should include a description of the source of the data, the method used to derive the data and the basis for any extrapolations made to the proposed site.

(7) Existing meteorological data including wind speed and direction, ambient temperature, relative humidity, stability and mixing height, and existing upper air data; and a discussion of the extent to which the data are typical conditions at the proposed site. This description should include a discussion of the source of the data and the method used to derive the data.

(8) A worst case air quality analysis for each proposed site and related facility to determine whether the plant may cause or contribute to a violation of each applicable ambient air quality standard. Such analysis shall include a description of the methodology employed and the basis for the conclusions reached, and shall consider topography, meteorology and contributions from other sources in the area.

(9) A discussion of the emission offset strategy or any other method of complying with the applicable new source review rule. The emission offset strategy shall be designed to show whether there are sufficient offsets available (contracts are not required). Offset categories (e.g. dry cleaners, degreasers) and an inventory of potential reductions may be used unless most of the potential offsets come from a very small number of sources. In the latter case, the offset sources should be more specifically identified. Potential offsets may be aggregated by geographic location as appropriate under the applicable rule. The offset discussion should also include a brief description of the emissions controls to be used for each offset category and should account for applicable rules requiring emission reductions. In the event there is no emissions inventory available from the ARB or from the applicable local district, the applicant may propose an alternative method for complying with this requirement.

(10) Based upon worst case data for analysis for short-term averaging times and typical data for analysis for annual averaging times, discussion of whether the proposed facility will be within PSD Class I or Class II increments.

(m) The notice shall designate an individual or individuals authorized to receive pleadings, briefs, comments, and other documents for the applicant.

(n) The notice may contain any other pertinent information that the applicant desires to submit.

Note: Authority cited: Sections 25213 and 25502, Public Resources Code. Reference: Sections 21080.5, 25309, 25502, 25504, 25511, 25514, and 25541.5, Public Resources Code.

Appendix B

Information Requirements for an Application

(a) Executive Summary

(1) Project Overview

(A) A general description of the proposed site and related facilities, including the location of the site or transmission routes, the type, size and capacity of the generating or transmission facilities, fuel characteristics, fuel supply routes and facilities, water supply routes and facilities, pollution control systems, and other general characteristics.

(B) Identification of the location of the proposed site and related facilities by section, township, range, county, and assessor's parcel numbers.

(C) A description of and maps depicting the region, the vicinity, and the site and its immediate surroundings.

(D) A full-page color photographic reproduction depicting the visual appearance of the site prior to construction, and a full-page color simulation or artist's rendering of the site and all project components at the site, after construction.

(E) In an appendix to the application, a list of current assessor's parcel numbers and owners' names and addresses for all parcels within 500 feet of the proposed transmission line and other linear facilities, and within 1000 feet of the proposed powerplant and related facilities.

(2) Project Schedule: Proposed dates of initiation and completion of construction, initial start-up, and full-scale operation of the proposed facilities.

(3) Project Ownership

(A) A list of all owners and operators of the site(s), the power plant facilities, and, if applicable, the thermal host, the geothermal leasehold, the geothermal resource conveyance lines, and the geothermal re-injection system, and a description of their legal interest in these facilities.

(B) A list of all owners and operators of the proposed electric transmission facilities.

(C) A description of the legal relationship between the applicant and each of the persons or entities specified in subsections (a)(3)(A) and (B).

(b) Project Description

(1) In a section entitled, "Generation Facility Description, Design, and Operation" provide the following information:

(A) Maps at a scale of 1:24,000 (1" = 2000'), (or appropriate map scale agreed to by staff) along with an identification of the dedicated leaseholds by section, township, range, county, and county assessor's parcel number, showing the proposed final locations and layout of the power plant and all related facilities;

(B) Scale plan and elevation drawings depicting the relative size and location of the power plant and all related facilities to establish the accuracy of the photo simulations required in Sections (a)(1)(D) and (g)(6)(F);

(C) A detailed description of the design, construction and operation of the facilities, specifically including the power generation, cooling, water supply and treatment, waste handling and control, pollution control, fuel handling, and safety, emergency and auxiliary systems, and fuel types and fuel use scenarios; and

(D) A description of how the site and related facilities were selected and the consideration given to engineering constraints, site geology, environmental impacts, water, waste and fuel constraints, electric transmission constraints, and any other factors considered by the applicant.

(2) In a section entitled, "Transmission Lines Description, Design, and Operation" provide the following information:

(A) Maps at a scale of 1:24,000 (or appropriate map scale agreed to by staff) of each proposed transmission line route, showing the settled areas, parks, recreational areas, scenic areas, and existing transmission lines within one mile of the proposed route(s);

(B) A full-page color photographic reproduction depicting a representative above ground section of the transmission line route prior to construction and a full-page color photographic simulation of that section of the transmission line route after construction;

(C) A detailed description of the design, construction and operation of any electric transmission facilities, such as powerlines, substations, switchyards, or other transmission equipment, which will be constructed or modified to transmit electrical power from the proposed power plant to the load centers to be served by the facility. Such description shall include the width of rights-of-way and the physical and electrical characteristics of electrical transmission facilities such as towers, conductors, and insulators.

(D) A description of how the route and additional transmission facilities were selected, and the consideration given to engineering constraints, environmental impacts, resource conveyance constraints, and electric transmission constraints; and

(E) A completed System Impact Study or signed System Impact Study Agreement with the California Independent System Operator and proof of payment. When not connecting to the California Independent System Operator controlled grid, provide the executed System Impact Study agreement and proof of payment to the interconnecting utility.

If the interconnection and operation of the proposed project will likely impact a transmission system that is not controlled by the interconnecting utility (or California Independent System Operator), provide evidence of a System Impact Study or agreement and proof of payment (when applicable) with/to the impacted transmission owner or provide evidence that there are no system impacts requiring mitigation.

(3) Applications for geothermal facilities shall contain the following additional information:

(A) Maps at a scale of 1:24,000 (or appropriate map scale agreed to by staff) showing the location of the geothermal leaseholds, along with a description by section, township, range, county, and assessor's parcel numbers of the leaseholds;

(B) Full-page color photographic reproductions of the geothermal leaseholds;

(C) A description of the process by which the geothermal leasehold was selected and the consideration given to engineering constraints, site geology, environmental impacts, water, steam, waste and fuel constraints, electric transmission constraints, and any other factors considered by the applicant. Include references to any environmental documents which address steam field development;

(D) A detailed description of the type, quality, and characteristics of the geothermal resource, including pressure and temperature flow rates, constituents and concentrations of non-condensable gases, and constituent concentrations of dissolved solids, and descriptions and concentrations of any substances potentially harmful to public health and safety or to the environment;

(E) Proposed locations of production and re-injection wells for the project. Include the applicant's assessment of geothermal resource adequacy, including the production history of those wells within the leaseholds dedicated to the project, including pressure decline curves as available; and

(F) A discussion of the potential impacts on the temperature, mineral content, and rate of flow of thermal springs affected by the project.

(c) Reserved

(d) Information for Projects Which Completed the NOI Process

(1) A copy of any study or analysis required by the terms of the Commission's Final Decision on the NOI, and a brief summary of the results of the study or analysis.

(2) Updates of any significant information which has changed since the Commission's Final Decision on the NOI.

(e) Facility Closure

(1) A discussion of how facility closure will be accomplished in the event of premature or unexpected cessation of operations.

(f) Alternatives

(1) A discussion of the range of reasonable alternatives to the project, or to the location of the project, including the no project alternative, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and an evaluation of the comparative merits of the alternatives. In accordance with Public Resources Code section 25540.6(b), a discussion of the applicant's site selection criteria,

any alternative sites considered for the project, and the reasons why the applicant chose the proposed site.

(2) An evaluation of the comparative engineering, economic, and environmental merits of the alternatives discussed in subsection (f)(1).

(g) Environmental Information

(1) General Information: For each technical area listed below, provide a discussion of the existing site conditions, the expected direct, indirect, and cumulative impacts due to the construction, operation, and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation. Additional requirements specific to each technical area are listed below.

(2) Cultural Resources

(A) A summary of the ethnology, prehistory, and history of the region with emphasis on the area within no more than a 5-mile radius of the project location.

(B) The results of a literature search to identify cultural resources within an area not less than a 1-mile radius around the project site and not less that than one-quarter (0.25) mile on each side of the linear facilities. Identify any cultural resources listed pursuant to ordinance by a city or county, or recognized by any local historical or archaeological society or museum. Literature searches to identify the above cultural resources must be completed by, or under the direction of, individuals who meet the Secretary of the Interior's Professional Standards for the technical area addressed.

Copies of California Department of Parks and Recreation (DPR) 523 forms (Title 14 CCR §4853) shall be provided for all cultural resources (ethnographic, architectural, historical, and archaeological) identified in the literature search as being 45 years or older or of exceptional importance as defined in the National Register Bulletin Guidelines, (36CFR60.4(g)). A copy of the USGS 7.5' quadrangle map of the literature search area delineating the areas of all past surveys and noting the California Historical Resources Information System (CHRIS) identifying number shall be provided. Copies also shall be provided of all technical reports whose survey coverage is wholly or partly within .25 mile of the area surveyed for the project under Section (g)(2)(C), or which report on any archaeological excavations or architectural surveys within the literature search area.

(C) The results of new surveys or surveys less than 5 years old shall be provided if survey records of the area potentially affected by the project are more than five (5) years old. Surveys to identify new cultural resources must be completed by (or under the direction of) individuals who meet the Secretary of the Interior's Professional Standards for the technical area addressed.

New pedestrian archaeological surveys shall be conducted inclusive of the project site and project linear facility routes, extending to no less than 200' around the project site, substations and staging areas, and to no less than 50' to either side of the right-of-way of project linear facility routes. New historic architecture field surveys in rural areas shall be conducted inclusive of the project site and the project linear facility routes, extending no less than .5 mile out from the proposed plant site and from the routes of all above-ground linear facilities. New historic

architecture field surveys in urban and suburban areas shall be conducted inclusive of the project site, extending no less than one parcel's distance from all proposed plant site boundaries. New historic architecture field reconnaissance ("windshield survey") in urban and suburban areas shall be conducted along the routes of all linear facilities to identify, inventory, and characterize structures and districts that appear to be older than 45 years or that are exceptionally significant, whatever their age.

A technical report of the results of the new surveys, conforming to the Archaeological Resource Management Report format (CA Office of Historic Preservation Feb 1990), which is incorporated by reference in its entirety, shall be separately provided and submitted (under confidential cover if archaeological site locations are included). Information included in the technical report shall also be provided in the Application for Certification, except that confidential information (archaeological sites or areas of religious significance) shall be submitted under a request for confidentiality pursuant to Title 20, California Code of Regulations, § 2501 et seq. At a minimum, the technical report shall include the following:

(i) The summary from Appendix B (g)(2)(A) and the literature search results from Appendix B (g)(2)(B).

(ii) The survey procedures and methodology used to identify cultural resources and a discussion of the cultural resources identified by the survey.

(iii) Copies of all new and updated DPR 523(A) forms. If a cultural resource may be impacted by the project, also include the appropriate DPR 523 detail form for each such resource.

(iv) A map at a scale of 1:24,000 U.S. Geological Survey quadrangle depicting the locations of all previously known and newly identified cultural resources compiled through the research required by Appendix B (g)(2)(B) and Appendix B (g)(2)(C) (ii).

(v) The names and qualifications of the cultural resources specialists who contributed to and were responsible for literature searches, surveys, and preparation of the technical report.

(D) Provide a copy of your request to the Native American Heritage Commission (NAHC) for information on Native American sacred sites and lists of Native Americans interested in the project vicinity, and copies of any correspondence received from the NAHC. Notify the Native Americans on the NAHC list about the project, including a project description and map. Provide a copy of all correspondence sent to Native American individuals and groups listed by the NAHC and copies of all responses. Provide a written summary of any oral responses.

(E) Include in the discussion of proposed mitigation measures required by subdivision (g)(1):

(i) A discussion of measures proposed to mitigate project impacts to known cultural resources;

(ii) A set of contingency measures proposed to mitigate potential impacts to previously unknown cultural resources and any unanticipated impacts to known cultural resources;

(iii) Educational programs to enhance employee awareness during construction and operation to protect cultural resources.

(3) Land Use

(A) A discussion of existing land uses and current zoning at the site, land uses and land use patterns within one mile of the proposed site and within one-quarter mile of any project-related linear facilities. Include:

(i) An identification of residential, commercial, industrial, recreational, scenic, agricultural, natural resource protection, natural resource extraction, educational, religious, cultural, and historic areas, and any other area of unique land uses;

(ii) A discussion of any recent or proposed zone changes and/or general plan amendments; noticed by an elected or appointed board, commission, or similar entity at the state or local level.

(iii) Identification of all discretionary reviews by public agencies initiated or completed within 18 months prior to filing the application for those changes or developments identified in subsection (g)(3)(A)(ii); and

(iv) Legible maps of the areas identified in subsection (g)(3)(A) potentially affected by the project, on which existing land uses, jurisdictional boundaries, general plan designations, specific plan designations, and zoning have been clearly delineated.

(B) A discussion of the compatibility of the proposed project with present and expected land uses, and conformity with any long-range land use plans adopted by any federal, state, regional, or local planning agencies. The discussion shall identify the need, if any, for land use decisions by another public agency or as part of the commission's decision that would be necessary to make the project conform to adopted federal, state, regional, or local coastal plans, land use plans, or zoning ordinances. Examples of land use decisions include: general plan amendments, zoning changes, lot line adjustments, parcel mergers, subdivision maps, Agricultural Land Conservation Act contracts cancellation, and Airport Land Use Plan consistency determinations.

(C) A discussion of the legal status of the parcel(s) on which the project is proposed. If the proposed site consists of more than one legal parcel, describe the method and timetable for merging or otherwise combining those parcels so that the proposed project, excluding linears and temporary laydown or staging area, will be located on a single legal parcel. The merger need not occur prior to a decision on the Application but must be completed prior to the start of construction.

(D) A map at a scale of 1:24,000 and written description of agricultural land uses found within all areas affected by the proposed project. The description shall include:

(i) Crop types, irrigation systems, and any special cultivation practices; and

(ii) Whether farmland affected by the project is prime, of statewide importance, or unique as defined by the California Department of Conservation.

(iii) Direct, indirect, and cumulative effects on agricultural land uses.If the proposed site or related facilities are subject to an Agricultural Land Conservation contract, provide a written copy and a discussion of the status of the expiration or canceling of such contract.

(4) Noise

(A) A land use map which identifies residences, hospitals, libraries, schools, places of worship, or other facilities where quiet is an important attribute of the environment within the area impacted by the proposed project. The area potentially impacted by the proposed project is that area where, during either construction or operation, there is a potential increase of 5 dB(A) or more, over existing background levels.

(B) A description of the ambient noise levels at those sites identified under subsection (g)(4)(A) which the applicant believes provide a representative characterization of the ambient noise levels in the project vicinity, and a discussion of the general atmospheric conditions, including temperature, humidity, and the presence of wind and rain at the time of the measurements. The existing noise levels shall be determined by taking noise measurements for a minimum of 25 consecutive hours at a minimum of one site. Other sites may be monitored for a lesser duration at the applicant's discretion, preferably during the same 25-hour period. The results of the noise level measurements shall be reported as hourly averages in L_{eq} (equivalent sound or noise level), L_{dn} (day-night sound or noise level) or CNEL (Community Noise Equivalent Level) in units of dB(A). The L_{10}, L_{50}, and L_{90} values (noise levels exceeded 10 percent, 50 percent, and 90 percent of the time, respectively) shall also be reported in units of dB(A).

(C) A description of the major noise sources of the project, including the range of noise levels and the tonal and frequency characteristics of the noise emitted.

(D) An estimate of the project noise levels, during both construction and operation, at residences, hospitals, libraries, schools, places of worship, or other facilities where quiet is an important attribute of the environment, within the area impacted by the proposed project.

(E) An estimate of the project noise levels within the project site boundary during both construction and operation and the impact to the workers at the site due to the estimated noise levels.

(F) The audible noise from existing switchyards and overhead transmission lines that would be affected by the project, and estimates of the future audible noise levels that would result from existing and proposed switchyards and transmission lines. Noise levels shall be calculated at the property boundary for switchyards and at the edge of the rights-of-way for transmission lines.

(5) Traffic and Transportation

(A) A regional transportation setting, on topographic maps (scale of 1:250,000), identifying the project location and major transportation facilities. Include a reference to the transportation element of any applicable local or regional plan.

(B) If the proposed project including any linear facility is to be located within 20,000 feet of an airport runway that is at least 3,200 feet in actual length, or 5,000 feet of a heliport (or planned or proposed airport runway or an airport runway under construction, that is the subject of a notice or proposal on file with the Federal Aviation Administration), discuss the project's compliance with the applicable sections of the current Federal Aviation Regulation Part 77 - Objects Affecting Navigable Airspace, specifically any potential to obstruct or impede air

navigation generated by the project at operation; such as, a thermal plume, a visible water vapor plume, glare, electrical interference, or surface structure height. The discussion should include a map at a scale of 1:24,000 that displays the airport or airstrip runway configuration, the proposed power plant site and related facilities.

(C) An identification, on topographic maps at a scale of 1:24,000 and a description of existing and planned roads, rail lines (including light rail), bike trails, airports, bus routes serving the project vicinity, pipelines, and canals in the project area affected by or serving the proposed facility. For each road identified, include the following information, where applicable:

(i) Road classification and design capacity;

(ii) Current daily average and peak traffic counts;

(iii) Current and projected levels of service before project development, during construction, and during project operation;

(iv) Weight and load limitations;

(v) Estimated percentage of current traffic flows for passenger vehicles and trucks; and

(vi) An identification of any road features affecting public safety.

(D) An assessment of the construction and operation impacts of the proposed project on the transportation facilities identified in subsection (g)(5)(C). Also include anticipated project-specific traffic, estimated changes to daily average and peak traffic counts, levels of service, and traffic/truck mix, and the impact of construction of any facilities identified in subsection (g)(5)(C).

(E) A discussion of project-related hazardous materials to be transported to or from the project during construction and operation of the project, including the types, estimated quantities, estimated number of trips, anticipated routes, means of transportation, and any transportation hazards associated with such transport.

(6) Visual Resources

(A) Descriptions of the existing visual setting of the vicinity of the proposed project site and the proposed routes for any project-related linear facilities. Include:

(i) Topographic maps at a scale of 1:24,000 that depict directions from which the project would be seen, the view areas most sensitive to the potential visual impacts of the project, and the locations where photographs were taken for (g)(6)(C); and

(ii) Description of the existing visual properties of the topography, vegetation, and any modifications to the landscape as a result of human activities, including existing water vapor plumes, above-ground electrical transmission lines, and nighttime lighting levels in the project viewshed.

(B) An assessment of the visual quality of those areas that would be affected by the proposed project. For projects proposed to be located within the coastal zone, the assessment should also describe how the proposed project would be sited to protect views to and along the

ocean and scenic coastal areas, would minimize the alteration of natural land forms, would be visually compatible with the character of surrounding areas.

(C) In consultation with Energy Commission staff, identify i) any designated scenic roadways or scenic corridors and any visually sensitive areas that would be affected by the proposed project, including recreational and residential areas and ii) the locations of the key observation points to represent the most critical viewing locations from which to conduct detailed analyses of the visual impacts of the proposed project. Indicate the approximate number of people using each of these sensitive areas and the estimated number of residences with views of the project. Also identify any major public roadways and trails of local importance that would be visually impacted by the project and indicate the types of travelers (e.g., local residents, recreationists, workers, commuters, etc.) and the approximate number of vehicles, bicyclists, and/or hikers per day.

(D) A table providing the dimensions (height, length, and width, or diameter) and, proposed color(s), materials, finishes, patterns, and other proposed design characteristics of each major component visible from off the project site, including any project-related electrical transmission line and/or offsite aboveground pipelines and metering stations.

(E) Provide the cooling tower and heat recovery steam generator (HRSG) exhaust design parameters that affect visible plume formation. For the cooling tower, data shall include heat rejection rate, exhaust temperature, exhaust mass flow rate, liquid to gas mass flow ratio, and, if the tower is plume-abated, moisture content (percent by weight) or plume-abated fogging curve(s). The parameters shall account for a range of ambient conditions (temperature and relative humidity) and proposed operating scenarios, such as duct firing and shutting down individual cells. For the heat recovery steam generator exhausts, data shall include moisture content (percent by weight), exhaust mass flow rate, and exhaust temperature. The parameters must correspond to full-load operating conditions at specified ambient conditions, and shall account for proposed operating scenarios, such as power augmentation (i.e., evaporative coolers, inlet foggers, or steam injection) and duct firing, or proposed HRSG visible plume abatement, such as the use of an economizer bypass. For simple-cycle projects, provide analogous data for the exhaust stack(s).

(F) Provide: i) full-page color photographic reproductions of the existing site, and ii) full-page color simulations of the proposed project at life-size scale when the picture is held 10 inches from the viewer's eyes, including any project-related electrical transmission lines, in the existing setting from each key observation point. If any landscaping is proposed to comply with zoning requirements or to mitigate visual impacts, include the landscaping in simulation(s) representing sensitive area views, depicting the landscaping five years after installation; and estimate the expected time until maturity is reached.

(G) An assessment of the visual impacts of the project, including light, glare, and any modeling of visible plumes. Include a description of the method and identify any computer model used to assess the impacts. Provide an estimate of the expected frequency and dimensions (height, length, and width) of the visible cooling tower and/or exhaust stack plumes. Provide the supporting assumptions, meteorological data, operating parameters, and calculations used.

(H) If any landscaping is proposed to reduce the visual impacts of the project, provide a conceptual landscaping plan at a 1:40 scale (1"=40'). Include information on the type of plant species proposed, their size, quantity, and spacing at planting, expected heights at 5 years and maturity, and expected growth rates.

(7) Socioeconomics

(A) A description of the socioeconomic circumstances of the vicinity and region affected by construction and operation of the project. Include:

(i) The economic characteristics, including the economic base, fiscal resources, and a list of the applicable local agencies with taxing powers and their most recent and projected revenues;

(ii) The social characteristics, including population and demographic and community trends;

(iii) Existing and projected unemployment rates;

(iv) Availability of skilled workers by craft required for construction and operation of the project;

(v) Availability of temporary and permanent housing and current vacancy rate; and

(vi) Capacities, existing and expected use levels, and planned expansion of utilities (gas, water and waste) and public services, including fire protection, law enforcement, emergency response, medical facilities, other assessment districts, and school districts. For projects outside metropolitan areas with a population of 500,000 or more, information for each school district shall include current enrollment and yearly expected enrollment by grade level groupings, excluding project-related changes, for the duration of the project construction schedule.

(B) A discussion of the socioeconomic impacts caused by the construction and operation of the project (note year of estimate, model, if used, and appropriate sources), including:

(i) An estimate of the number of workers to be employed each month by craft during construction, and for operations, an estimate of the number of permanent operations workers during a year;

(ii) An estimate of the percentage of non-local workers who will relocate to the project area to work on the project;

(iii) An estimate of the potential population increase caused directly and indirectly by the project;

(iv) The potential impact of population increase on housing during the construction and operations phases;

(v) The potential impacts, including additional costs, on utilities (gas, water and waste) and public services, including fire, law enforcement, emergency response, medical facilities, other assessment districts, and school districts. Include response times to hospitals and for police, and emergency services. For projects outside metropolitan areas with a population of 500,000 or more, information on schools shall include project-related enrollment changes by grade level groupings and associated facility and staffing impacts by school district during the construction and operating phases;

(vi) An estimate of applicable school impact fees;

(vii) An estimate of the total construction payroll and separate estimates of the total operation payroll for permanent and short-term (contract) operations employees;

(viii) An estimate of the expenditures for locally purchased materials for the construction and operation phases of the project; and

(ix) An estimate of the capital cost (plant and equipment) of the project.

(x) An estimate of sales taxes generated during construction and separately during an operational year of the project.

(xi) An estimate of property taxes generated during an operational year of the project.

(xii) The expected direct, indirect, and induced income and employment effects due to construction, operation, and maintenance of the project.

(8) Air Quality

(A) The information necessary for the air pollution control district where the project is located to complete a Determination of Compliance.

(B) The heating value and chemical characteristics of the proposed fuels, the stack height and diameter, the exhause velocity and temperature, the heat rate and the expected capacity factor of the proposed facility.

(C) A description of the control technologies proposed to limit the emission of criteria pollutants.

(D) A description of the cooling system, the estimated cooling tower drift rate, the rate of water flow through the cooling tower, and the maximum concentrations of total dissolved solids.

(E) The emission rates of criteria pollutants and greenhouse gases (CO2, CH4, N2O, and SF6) from the stack, cooling towers, fuels and materials handling processes, delivery and storage systems, and from all on-site secondary emission sources.

(F)(i) A description of typical operational modes, and start-up and shutdown modes for the proposed project, including the estimated frequency of occurrence and duration of each mode, and estimated emission rate for each criteria pollutant during each mode.

(ii) A description of the project's planned initial commissioning phase, which is the phase between the first firing of emissions sources and the commercial operations date, including the types and durations of equipment tests, criteria pollutant emissions, and monitoring techniques to be used during such tests,

(G) The ambient concentrations of all criteria pollutants for the previous three years as measured at the three Air Resources Board certified monitoring stations located closest to the project site, and an analysis of whether this data is representative of conditions at the project site. The applicant may substitute an explanation as to why information from one, two, or all stations is either not available or unnecessary.

(H) One year of meteorological data collected from either the Federal Aviation Administration Class 1 station nearest to the project or from the project site, or meteorological data approved by the California Air Resources Board or the local air pollution district.

(i) If the data is collected from the project site, the applicant shall demonstrate compliance with the requirements of the U.S. Environmental Protection Agency document entitled "On-Site Meteorological Program Guidance for Regulatory Modeling Applications" (EPA - 450/4-87-013 (August 1995)), which is incorporated by reference in its entirety.

(ii) The data shall include quarterly wind tables and wind roses, ambient temperatures, relative humidity, stability and mixing heights, upper atmospheric air data, and an analysis of whether this data is representative of conditions at the project site.

(I) An evaluation of the project's direct and cumulative air quality impacts, consisting of the following:

(i) A screening level air quality modeling analysis, or a more detailed modeling analysis if so desired by the applicant, of the direct criteria pollutant impacts of project construction activities on ambient air quality conditions, including fugitive dust (PM_{10}) emissions from grading, excavation and site disturbance, as well as the combustion emissions [nitrogen oxides (NO_x), sulfur dioxide (SO_2), carbon monoxide (CO), and particulate matter less than 10 microns in diameter (PM_{10}) and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$)] from construction-related equipment;

(ii) A screening level air quality modeling analysis, or a more detailed modeling analysis if so desired by the applicant, of the direct criteria pollutant (NO_x, SO_2, CO and PM_{10} and $PM_{2.5}$) impacts on ambient air quality conditions of the project during typical (normal) operation, and during shutdown and startup modes of operation. Identify and include in the modeling of each operating mode the estimated maximum emissions rates and the assumed meteorological conditions; and

(iii) A protocol for a cumulative air quality modeling impacts analysis of the project's typical operating mode in combination with other stationary emissions sources within a six mile radius which have received construction permits but are not yet operational, or are in the permitting process. The cumulative inert pollutant impact analysis should assess whether estimated emissions concentrations will cause or contribute to a violation of any ambient air quality standard.

(iv) an air dispersion modeling analyses of the impacts of the initial commissioning phase emissions on state and federal ambient air quality standards for NO_x, SO_2, CO, PM_{10} and $PM_{2.5}$.

(J) If an emission offset strategy is proposed to mitigate the project's impacts under subsection (g)(1), provide the following information:

(i) The quantity of offsets or emission reductions that are needed to satisfy air permitting requirements of local permitting agencies (such as the air district), state and federal oversight air agencies, and the California Energy Commission. Identify by criteria air pollutant, and if appropriate, greenhouse gas; and

(ii) Potential offset sources, including location, and quantity of emission reductions.

(K) a detailed description of the mitigation, if any, which an applicant may propose, for all project impacts from criteria pollutants that currently exceed state or federal ambient air quality standards, but are not subject to offset requirements under the district's new source review rule.

(9) Public Health

(A) An assessment of the potential risk to human health from the project's hazardous air emissions using the Air Resources Board Hotspots Analysis and Reporting Program (HARP) (Health and Safety Code §§ 44360-44366) or its successor and Approved Risk Assessment Health Values. These values shall include the cancer potency values and noncancer reference exposure levels approved by the Office of Environmental Health Hazard Assessment (OEHHA Guidelines, Cal-EPA 2005).

(B) A listing of the input data and output results, in both electronic and print formats, used to prepare the HARP health risk assessment.

(C) Identification of available health studies through the local public health department concerning the potentially affected population(s) within a six-mile radius of the proposed power plant site related to respiratory illnesses, cancers or related diseases.

(D) A map showing sensitive receptors within the area exposed to the substances identified in subsection (g)(9)(A).

(E) For purposes of this section, the following definitions apply:

(i) A sensitive receptor refers to infants and children, the elderly, and the chronically ill, and any other member of the general population who is more susceptible to the effects of the exposure than the population at large.

(ii) An acute exposure is one which occurs over a time period of less than or equal to one (1) hour.

(iii) A chronic exposure is one which is greater than twelve (12) percent of a lifetime of seventy (70) years.

(10) Hazardous Materials Handling

(A) A list of all materials used or stored on-site which are hazardous or acutely hazardous, as defined in Title 22, California Code of Regulations, § 66261.20 et seq., and a discussion of the toxicity of each material.

(B) A map at a scale of 1:24,000 depicting the location of schools, hospitals, day-care facilities, emergency response facilities and long-term health care facilities, within the area potentially affected by any release of hazardous materials.

(C) A discussion of the storage and handling system for each hazardous material used or stored at the site.

(D) The protocol that will be used in modeling potential consequences of accidental releases that could result in off site impacts. Identify the model(s) to be used, a description of all input assumptions, including meteorological conditions. The results of the modeling analysis can be substituted after the AFC is complete.

(E) A discussion of whether a risk management plan (Health and Safety Code § 25531 et seq.) will be required, and if so, the requirements that will likely be incorporated into the plan.

(F) A discussion of measures proposed to reduce the risk of any release of hazardous materials.

(G) A discussion of the fire and explosion risks associated with the project.

(11) Worker Safety

(A) A description of the safety training programs which will be required for construction and operation personnel.

(B) A complete description of the fuel handling system and the fire suppression system.

(C) Provide draft outlines of the Construction Health and Safety Program and the Operation Health and Safety Program, as follows:

Construction Health and Safety Program:

* Injury and Illness Prevention Plan (8 Cal. Code Regs., § 1509);

* Fire Protection and Prevention Plan (8 Cal. Code Regs., § 1920);

* Personal Protective Equipment Program (8 Cal. Code Regs., §§ 1514-1522).

Operation Health and Safety Program:

* Injury and Illness Prevention Program (8 Cal. Code Regs., § 3203);

* Fire Prevention Plan (8 Cal. Code Regs., § 3221);

* Emergency Action Plan (8 Cal. Code Regs., § 3220);

* Personal Protective Equipment Program (8 Cal. Code Regs., §§ 3401-3411).

(12) Waste Management

(A) A Phase I Environmental Site Assessment (ESA) for the proposed power plant site using methods prescribed by the American Society for Testing and Materials (ASTM) document entitled "Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process" (Designation: E 1527-93, May 1993), which is incorporated by reference in its entirety; or an equivalent method agreed upon by the applicant and the CEC Staff that provides similar documentation of the potential level and extent of site contamination. The Phase I ESA shall have been completed no earlier than one year prior to the filing of the AFC.

(B) A description of each waste stream estimated to be generated during project construction and operation, including origin, hazardous or nonhazardous classification pursuant to Title 22, California Code of Regulations, § 66261.20 et seq., chemical composition, estimated annual weight or volume generated, and estimated frequency of generation.

(C) A description of all waste disposal sites which may feasibly be used for disposal of project wastes. For each site, include the name, location, classification under Title 23, California Code of Regulations, § 2530 et seq., the daily or annual permitted capacity, daily or annual amounts of waste currently being accepted, the estimated closure date and remaining capacity, and a description of any enforcement action taken by local or state agencies due to waste disposal activities at the site.

(D) A description of management methods for each waste stream, including methods used to minimize waste generation, length of on- and off-site waste storage, re-use and recycling opportunities, waste treatment methods used, and use of contractors for treatment.

(13) Biological Resources

(A) A regional overview and discussion of terrestrial and aquatic biological resources, with particular attention to sensitive biological resources within ten (10) miles of the project. Include a map at a scale of 1:100,000 (or other suitable scale) showing sensitive biological resource location(s) in relation to the project site and related facilities and any boundaries of a local Habitat Conservation Plan or similar open space land use plan or designation. Sensitive biological resources include the following:

(i) species listed under state or federal Endangered Species Acts;

(ii) resources defined in sections 1201(d) and (u) of Title 20 of the California Code of Regulations;

(iii) species identified as state Fully Protected;

(iv) species covered by Migratory Bird Treaty Act;

(v) species and habitats identified by local, state, and federal agencies as needing protection, including but not limited to those identified by the California Natural Diversity Database, or where applicable, in Local Coastal Programs or in relevant decisions of the California Coastal Commission; and

(vi) fish and wildlife species that have commercial and/or recreational value.

(B) Include a list of the species actually observed and those with a potential to occur within 1 mile of the project site and 1,000 feet from the outer edge of linear facility corridors.

Maps or aerial photographs shall include the following:

(i) Detailed maps at a scale of 1:6,000 or color aerial photographs taken at a recommended scale of 1 inch equals 500 feet (1:6,000) with a 30 percent overlap that show the proposed project site and related facilities, biological resources including, but not limited to, those found during project-related field surveys and in records from the California Natural Diversity Database, and the associated areas where biological surveys were conducted. Label the biological resources and survey areas as well as the project facilities.

(ii) A depiction of the extent of the thermal plume at the surface of the water if cooling water is proposed to be discharged to a water source. Provide the location for the intake and discharge structures on an aerial photograph(s) or detailed maps. Water sources include, but are not limited to, waterways, lakes, impoundments, oceans, bays, rivers, and estuaries.

(iii) An aerial photo or wetlands delineation maps at a scale of (1:2,400) showing any potential jurisdictional and non-jurisdictional wetlands delineated out to 250 feet from the edge of disturbance if wetlands occur within 250 feet of the project site and/or related facilities that would be included with the US Army Corps of Engineers Section 404 Permit application. For projects proposed to be located within the coastal zone, also provide aerial photographs or maps as described above that identify wetlands as defined by the Coastal Act.

(C) A discussion of the biological resources at the proposed project site and related facilities. Related facilities include, but are not limited to, laydown and parking areas, gas and water supply pipelines, transmission lines, and roads. The discussion shall address the distribution of vegetation community types, denning or nesting sites, population concentrations, migration corridors, breeding habitats, and other appropriate biological resources including the following:

(i) A list of all the species actually observed.

(ii) A list of sensitive species and habitats with a potential to occur (as defined in (A) above).

(iii) If cooling water is taken directly from or discharged to a surface water feature source, include a description of the intake structure, screens, water volume, intake velocity hydraulic zone field of influence, and the thermal plume dispersion area as depicted in response to B(ii) above. Describe the thermal plume size and dispersion under high and low tides, and in response to local currents and seasonal changes. Provide a discussion of the aquatic habitats, biological resources, and critical life stages found in these affected waters. For repower projects that anticipate no change in cooling water flow, this information shall be provided in the form of the most recent federal Clean Water Act 316(a) and (b) studies of entrainment and impingement impacts that has been completed within the last five (5) years. For new projects or repower projects proposing to use once-through cooling and anticipating an increase in cooling water flow, provide a complete impingement and entrainment analysis per guidance in (D)(ii), below.

(D) A description and results of all field studies and seasonal surveys used to provide biological baseline information about the project site and associated facilities. Include copies of the California Natural Diversity Database records and field survey forms completed by the applicant's biologist(s). Identify the date(s) the surveys were completed, methods used to complete the surveys, and the name(s) and qualifications of the biologists conducting the surveys. Include:

(i) Current biological resources surveys conducted using appropriate field survey protocols during the appropriate season(s). State and federal agencies with jurisdiction shall be consulted for field survey protocol guidance prior to surveys if a protocol exists.

(ii) If cooling water is proposed to be taken directly from or discharged to a surface water feature source, seasonal aquatic resource studies and surveys shall be conducted. Aquatic resource survey data shall include, but is not limited to, fish trawls, ichthyoplankton and benthic sampling, and related temperature and water quality samples. For new projects or repower projects anticipating a change in cooling water flows, sampling protocols shall be provided to the Energy Commission staff for review and concurrence prior to the start of sampling. For repower projects not anticipating a change in cooling water flows, this information shall be provided in the form of the most recent federal Clean Water Act 316(b) impingement and entrainment impact study completed within five (5) years of the AFC filing date.

(iii) If the project or any related facilities could impact a jurisdictional or non-jurisdictional wetland, provide completed Army Corps of Engineers wetland delineation forms and/or determination of wetland status pursuant to Coastal Act requirements, name(s) and qualifications of biologist(s) completing the delineation, the results of the delineation and a table showing wetland acreage amounts to be impacted.

(E) Impacts discussion of the following:

(i) all impacts (direct, indirect, and cumulative) to biological resources from project site preparation, construction activities, plant operation, maintenance, and closure. Discussion shall also address sensitive species habitat impacts from cooling tower drift and air emissions.

(ii) facilities that propose to take water directly from, and/or discharge water to surface water features, daytime and nighttime impacts from the intake and discharge of water during operation, water velocity at the intake screen, the intake field of influence, impingement, entrainment, and thermal discharge. Provide a discussion of the extent of the thermal plume, effluent chemicals, oxygen saturation, intake pump operations, and the volume and rate of cooling water flow at the intake and discharge location.

(iii) Methods to control biofouling and chemical concentrations, and temperatures that are currently being discharged or will be discharged to receiving waters.

(F) A discussion of all feasible mitigation measures including, but not limited to the following:

(i) All measures proposed to avoid and/or reduce adverse impacts to biological resources.

(ii) All off-site habitat mitigation and habitat improvement or compensation, and an identification of contacts for compensation habitat and management.

(iii) Design features to better disperse or eliminate a thermal discharge.

(iv) All measures proposed to avoid or minimize adverse impacts of cooling water intake. This shall include a Best Technology Available (BTA) discussion. If BTA is not being proposed, the rationale for not selecting BTA must be provided.

(v) Educational programs to enhance employee awareness during construction and operation to protect biological resources.

(G) A discussion of compliance and monitoring programs to ensure the effectiveness of impact avoidance and mitigation measures incorporated into the project.

(H) Submit copies of any preliminary correspondence between the project applicant and state and federal resource agencies regarding whether federal or state permits from other agencies such as the U. S. Fish and Wildlife Service, the National Marine Fisheries Service, the U.S. Army Corps of Engineers, the California Department of Fish and Game, and the Regional Water Quality Control Board will be required for the proposed project.

(14) Water Resources

(A) All the information required to apply for the following permits, if applicable, including:

(i) Waste Discharge Requirements; National Pollutant Discharge Elimination System Permit; and/or a Section 401 Certification or Waiver from the appropriate Regional Water Quality Control Board (RWQCB);

(ii) Construction and Industrial Waste Discharge and/or Industrial Pretreatment permits from wastewater treatment agencies;

(iii) Nationwide Permits and/or Section 404 Permits from the U.S. Army Corps of Engineers; and

(iv) Underground Injection Control Permit(s) from the U.S. Environmental Protection Agency, California Division of Oil and Gas, and RWQCB.

(B) A detailed description of the hydrologic setting of the project. The information shall include a narrative discussion and on maps at a scale of 1:24,000 (or appropriate scale approved by staff), describing the chemical and physical characteristics of the following nearby water bodies that may be affected by the proposed project:

(i) Ground water bodies and related geologic structures;

(ii) Surface water bodies;

(iii) Water inundation zones, such as the 100-year flood plain and tsunami run-up zones;

(iv) Flood control facilities (existing and proposed); and

(v) Groundwater wells within 1/2 mile if the project will include pumping.

(C) A description of the water to be used and discharged by the project. This information shall include:

(i) Source(s) of the primary and back-up water supplies and the rationale for their selection;

(ii) The expected physical and chemical characteristics of the source and discharge water(s) including identification of both organic and inorganic constituents before and after any project-related treatment. For source waters with seasonal variation, provide seasonal ranges of the expected physical and chemical characteristics. Provide copies of background material used to create this description (e.g., laboratory analysis);

(iii) Average and maximum daily and annual water demand and waste water discharge for both the construction and operation phases of the project;

(iv) A detailed description of all facilities to be used in water conveyance (from primary source to the power plant site), water treatment, and wastewater discharge. Include a water mass balance diagram;

(v) For all water supplies intended for industrial uses to be provided from public or private water purveyors, a letter of intent or will-serve letter indicating that the purveyor is willing to serve the project, has adequate supplies available for the life of the project, and any conditions or restrictions under which water will be provided. In the event that a will-serve letter or letter of intent cannot be provided, identify the most likely water purveyor and discuss the necessary assurances from the water purveyor to serve the project.

(vi) For all water supplied which necessitates transfers and/or exchanges at any point, identify all parties and contracts/agreements involved, the primary source for the transfer and/or exchange water (e.g., surface water, groundwater), and provide the status of all appropriate agencies' approvals for the proposed use, environmental impact analysis on the specific transfers and/or exchanges required to obtain the proposed supplies, a copy of any agency regulations that govern the use of the water, and an explanation of how the project complies with the agency regulation(s);

(vii) Provide water mass balance and heat balance diagrams for both average and maximum flows that include all process and/or ancillary water supplies and wastewater streams. Highlight any water conservation measures on the diagram and the amount that they reduce water demand.

(viii) For all projects which have a discharge, provide a copy of the will-serve letter, permit or contract with the public or private entity that will be accepting the wastewater and contact storm water from the project. The letter, permit or contract, if possible, shall identify the discharge volumes and the chemical or physical characteristics under which the wastewater and contact storm water will be accepted.

In the event that a will-serve letter, permit, or contract cannot be provided, identify the most likely wastewater/storm water entity and discuss why the applicant was unable to secure the necessary assurances to serve the project's wastewater/storm water needs. Also, discuss the term of the wastewater service to the project, whether the wastewater entity has adequate permit capacity for the volume of wastewater from the project and has adequate permit levels for the chemical/physical characteristics of the project's wastewater and storm water for the life of the project, and any issues or conditions/restrictions the wastewater entity may impose on the project.

(D) Identify all project elements associated with stormwater drainage, including a description of the following:

(i) Monthly and/or seasonal precipitation and stormwater runoff and drainage patterns for the proposed site and surrounding area that may be affected by the project's construction and operation.

(ii) Drainage facilities and the design criteria used for the plant site and ancillary facilities, including but not limited to capacity of designed system, design storm, and estimated runoff;

(iii) All assumptions and calculations used to calculate runoff and to estimate changes in flow rates between pre- and post construction; and

(iv) A copy of applicable regional and local requirements regulating the drainage systems, and a discussion of how the project's drainage design complies with these requirements.

(E) An impacts analysis of the proposed project on water resources and a discussion of conformance with water-related Laws, Ordinances, Regulations, and Standards (LORS) and policy. This discussion shall include:

(i) The effects of project demand on the water supply and other users of this source, including, but not limited to, water availability for other uses during construction or after the power plant begins operation, consistency of the water use with applicable RWQCB basin plans or other applicable resource management plans, and any changes in the physical or chemical conditions of existing water supplies as a result of water use by the power plant;

(ii) If the project will pump groundwater, an estimation of aquifer drawdown based on a computer modeling study shall be conducted by a professional geologist and include the estimated drawdown on neighboring wells within 0.5 mile of the proposed well(s), any effects on the migration of groundwater contaminants, and the likelihood of any changes in existing physical or chemical conditions of groundwater resources shall be provided;

(iii) The effects of construction activities and plant operation on water quality and to what extent these effects could be mitigated by best management practices;

(iv) If not using a zero liquid discharge project design for cooling and process waters, include the effects of the proposed wastewater disposal method on receiving waters, the feasibility of using pre-treatment techniques to reduce impacts, and beneficial uses of the receiving waters. Include an explanation why the zero liquid discharge process is "environmentally undesirable," or "economically unsound."

(v) If using fresh water, include a discussion of the cumulative impacts, alternative water supply sources and alternative cooling technologies considered as part of the project design. Include an explanation of why alternative water supplies and alternative cooling are "environmentally undesirable," or "economically unsound."

(vi) The effects of the project on the 100-year flood plain, flooding potential of adjacent lands or water bodies, or other water inundation zones.

(vii) All assumptions, evidence, references, and calculations used in the analysis to assess these effects.

(15) Soils

(A) A map at a scale of 1:24,000 and written description of soil types and all agricultural land uses that will be affected by the proposed project. The description shall include:

(i) The depth, texture, permeability, drainage, erosion hazard rating, and land capability class of the soil;

(ii) An identification of other physical and chemical characteristics of the soil necessary to allow an evaluation of soil erodibility, permeability, re-vegetation potential, and cycling of pollutants in the soil-vegetation system;

(iii) The location of any proposed fill disposal or fill procurement (borrow) sites; and

(iv) The location of any contaminated soils that could be disturbed by project construction.

(B) An assessment of the effects of the proposed project on soil resources and agricultural land uses. This discussion shall include:

(i) The quantification of accelerated soil loss due to wind and water erosion; and

(ii) The effect of power plant emissions on surrounding soil-vegetation systems.

(16) Paleontologic Resources

(A) Identification of the physiographic province and a brief summary of the geologic setting, formations, and stratigraphy of the project area. The size of the paleonotological study area may vary depending on the depositional history of the region.

(B) A discussion of the sensitivity of the project area described in subsection (g)(16)(A) and the presence and significance of any known paleontologic localities or other paleontologic resources within or adjacent to the project. Include a discussion of sensitivity for each geologic unit identified on the most recent geologic map at a scale of 1:24,000. Provide rationale as to why the sensitivity was assigned.

(C) A summary of all local museums, literature searches and field surveys used to provide information about paleontologic resources in the project area described in subsection (g)(16)(A). Identify the dates of the surveys, methods used in completing the surveys, and the names and qualifications of the individuals conducting the surveys.

(D) Information on the specific location of known paleontologic resources, survey reports, locality records, and maps at a scale of 1:24,000, showing occurrences of fossil finds, if known, within a one-mile radius of the project and related facilities shall be included in a separate appendix to the Application and submitted to the Commission under a request for confidentiality, pursuant to Title 20, California Code of Regulations, § 2501 et seq.

(E) A discussion of any educational programs proposed to enhance awareness of potential impacts to paleontological resources by employees, measures proposed for mitigation of impacts to known paleontologic resources, and a set of contingency measures for mitigation of potential impacts to currently unknown paleontologic resources.

(17) Geological Hazards and Resources

(A) A summary of the geology, seismicity, and geologic resources of the project site and related facilities, including linear facilities.

(B) A map at a scale of 1:24,000 and description of all recognized stratigraphic units, geologic structures, and geomorphic features within two (2) miles of the project site and along proposed facilities. Include an analysis of the likelihood of ground rupture, seismic shaking, mass wasting and slope stability, liquefaction, subsidence, tsunami runup, and expansion or collapse of soil structures at the plant site. Describe known geologic hazards along or crossing linear facilities.

(C) A map and description of geologic resources of recreational, commercial, or scientific value which may be affected by the project. Include a discussion of the techniques used to identify and evaluate these resources.

(18) Transmission System Safety and Nuisance

(A) The locations and a description of the existing switchyards and overhead and underground transmission lines that would be affected by the proposed project.

(B) An estimate of the existing electric and magnetic fields from the facilities listed in (A) above and the future electric and magnetic fields that would be created by the proposed project, calculated at the property boundary of the site and at the edge of the rights of way for any transmission line. Also provide an estimate of the radio and television interference that could result from the project.

(C) Specific measures proposed to mitigate identified impacts, including a description of measures proposed to eliminate or reduce radio and television interference, and all measures taken to reduce electric and magnetic field levels.

(h) Engineering

(1) Facility Design

(A) A description of the site conditions and investigations or studies conducted to determine the site conditions used as the basis for developing design criteria. The descriptions shall include, but not be limited to, seismic and other geologic hazards, adverse conditions that could affect the project's foundation, adverse meteorological and climate conditions, and flooding hazards, if applicable.

(B) A discussion of any measures proposed to improve adverse site conditions.

(C) A description of the proposed foundation types, design criteria (include derivation), analytical techniques, assumptions, loading conditions, and loading combinations to be used in the design of facility structures and major mechanical and electrical equipment.

(D) For each of the following facilities and/or systems, provide a description including drawings, dimensions, surface-area requirements, typical operating data, and performance and design criteria for protection from impacts due to adverse site conditions:

(i) The power generation system;

(ii) The heat dissipation system;

(iii) The cooling water supply system, and, where applicable, pre-plant treatment procedures;

(iv) The atmospheric emission control system;

(v) The waste disposal system and on-site disposal sites;

(vi) The noise emission abatement system;

(vii) The geothermal resource conveyance and re-injection lines (if applicable);

(viii) Switchyards/transformer systems; and

(ix) Other significant facilities, structures, or system components proposed by the applicant.

(2) Transmission System Design

(A) A discussion of the need for the additional electric transmission lines, substations, or other equipment, the basis for selecting principal points of junction with the existing electric transmission system, and the capability and voltage levels of the proposed lines, along with the basis for selection of the capacity and voltage levels.

(B) A discussion of the extent to which the proposed electric transmission facilities have been designed, planned, and routed to meet the transmission requirements created by additional generating facilities planned by the applicant or any other entity.

(3) Reliability

(A) A discussion of the sources and availability of the fuel or fuels to be used over the estimated service life of the facilities.

(B) A discussion of the anticipated service life and degree of reliability expected to be achieved by the proposed facilities based on a consideration of:

(i) Expected overall availability factor, and annual and lifetime capacity factors;

(ii) The demonstrated or anticipated feasibility of the technologies, systems, components, and measures proposed to be employed in the facilities, including the power generation system, the heat dissipation system, the water supply system, the reinjection system, the atmospheric emission control system, resource conveyance lines, and the waste disposal system;

(iii) Geologic and flood hazards, meteorologic conditions and climatic extremes, and cooling water availability;

(iv) Special design features adopted by the applicant or resource supplier to ensure power plant reliability including equipment redundancy; and

(v) For technologies not previously installed and operated in California, the expected power plant maturation period.

(4) Efficiency

(A) Heat and mass balance diagrams for design conditions for each mode of operation.

(B) Annual fuel consumption in BTUs for each mode of operation, including hot restarts and cold starts.

(C) Annual net electrical energy produced in MWh for each mode of operation, including starts and shutdowns.

(D) Number of hours the plant will be operated in each design condition in each year.

(E) If the project will be a cogeneration facility, calculations showing compliance with applicable efficiency and operating standards.

(F) A discussion of alternative generating technologies available for the project, including the projected efficiency of each, and an explanation why the chosen equipment was selected over these alternatives.

(5) Demonstration, if applicable

(A) Justification for the request for demonstration status, based on the criteria contained in the most recently adopted Electricity Report.

(B) A demonstration plan containing the following elements:

(i) A description of the technology to be demonstrated;

(ii) The objectives of the demonstration;

(iii) The plans for acquiring the data necessary to verify the state demonstration objectives;

(iv) The schedule for implementing the demonstration tasks;

(v) The expected date of commencement of commercial operation of the facility, if applicable, and

(vi) A description of contingent actions to be implemented if individual demonstration tasks are technologically unsuccessful.

(i) Compliance with Laws, Ordinances, Regulations and Standards

(1) Tables which identify:

(A) Laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and

(B) Each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state, and federal landuse plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.

(2) The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.

(3) A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.

Note: Authority cited: Sections 25213, 25216.5(a), 25218(e), Public Resources Code. Reference: Sections 21080.5, 25519(a), 25519(c), 25520, 25522(b), 25523(d)(1), 25540.1, 25540.2, 25540.6, Public Resources Code.

Appendix C

Information Requirements for a Geothermal Notice of Intent

(a) In a section entitled "Project Description," the notice shall contain:

(1) A map indicating the location or tentative location of the geothermal leasehold and the location or tentative location of each proposed power plant site and related facility, along with a description by section, township, range, and county of the leasehold.

(2) The location or tentative location of production and reinjection well sites, resource conveyance lines, access roads, and waste disposal sites in relation to each geothermal power plant.

(3) Photographic and/or other suitable graphic representations of the geothermal leasehold and each proposed geothermal power plant, and the visual appearance and general surroundings of such proposed power plant.

(4) A description of the process by which the tentative site was selected within the geothermal leasehold and the consideration given to site geology and ease of engineering, physical environmental impact, socioeconomic impacts, resource conveyance constraints, electric transmission constraints, land use constraints, and any other factors considered by the applicant and not listed herein.

(5) A preliminary description of the type, quality, and characteristics of the geothermal resource encountered or expected, including, to the extent known, pressure and temperature, flow rates, concentrations of non-condensable gases, concentrations of dissolved solids, and descriptions and concentrations of any substances potentially harmful to the environment or to the public health and safety.

(6) Where a notice is filed early in the resource development process, and where the pressure, temperature, flow rate, and constituency and concentration of dissolved solids in the geothermal resources are uncertain, an estimate of the probable range of the various resource parameters based upon nearby development, leasehold exploration if it has occurred, or any other information sources available to the applicant and resource developer. In addition, the basis for such estimations shall be clearly identified.

COMMENT: The 18-month certification process is particularly appropriate for the instances described in this subsection.

(7) The maximum estimated generating capacity of each proposed power plant.

(8) A tentative project schedule including permit approvals from the commission and other agencies from which permits must be issued prior to construction or operation, construction lead times, anticipated date of commercial operation, and anticipated operating plant life.

(9) For each of the following facilities and/or systems a general description, which includes dimensions, surface area requirements, and typical operating data, performance and design criteria for protection from impacts due to geotechnical hazards, flood hazards, and meteorological extremes, performance and design criteria for assurance of public health and safety and protection of the environment.

(A) Power generation system;

(B) Heat dissipation system;

(C) Cooling water supply system;

(D) Reinjection system;

(E) Atmospheric emission control system;

(F) Waste disposal systems and disposal sites;

(G) Geothermal resource conveyance lines;

(H) Pre-plant cooling water treatment systems, where applicable;

(I) Switchyards/transformer systems; and

(J) Other significant facilities, structures or system components proposed by the applicant not listed above.

COMMENT: The term "performance criteria," when used in these regulations, refers to performance goals which the applicant proposes to use in designing the proposed facilities. For example, a component of the seismic performance criteria would be designing a turbine generator so as to allow continued operation of the proposed facility at full load after the occurrence of a design basis earthquake at the site. Performance criteria are an alternate statement of acceptable risk and are usually semi-quantitative in nature.

The term "design criteria" refers to the limiting criteria used for detailed design of a structure or component. The design criteria produce a design which will meet or exceed the desired performance criteria. For example, design criteria include design loads and the methods for determining loads.

(10) A list of all project participants and their legal interests in the power plant facilities, the geothermal leasehold, the geothermal resource conveyance lines, the geothermal reinjection system, and the electric transmission facilities.

(b) In a section entitled "Need for Project," the notice shall contain:

(1) A discussion of the conformity of the proposed facilities with the level of statewide and service area electrical demand adopted by the commission pursuant to Section 25309 of the Public Resources Code. The discussion shall specify the reasons why the applicant has concluded that the facilities should be added to the applicant's electrical system, including a discussion of whether the facilities are being proposed to meet projected capacity or energy deficits, to displace existing units scheduled for retirement, or to meet requirements for additional reserves.

COMMENT: In the discussion of need, the applicant may incorporate by reference any other relevant filings or submittals to the commission and must include a summary of the referenced material and a discussion of the relevance of such filings or submittals.

(2) An energy and capacity balance showing the forecast of electricity demand as adopted pursuant to Section 25309(b) of the Public Resources Code and generating resources expected to be available to the applicant when the proposed plant is scheduled to begin operation.

(3) The anticipated generating capacity of each proposed facility or facilities, and:

(A) The expected annual capacity factor from the date of initial operation through the 12-year forecast period; and

(B) The expected average annual capacity factor over the anticipated operating life of the facility.

(4) The applicant may demonstrate need for a geothermal facility by reference to the most recent Biennial Report, and in making such demonstration the applicant may cite any findings and conclusions resulting from any generic proceedings conducted by the commission.

(c) In a section entitled "Financial Impacts," the notice shall contain:

(1) A discussion of the preliminary financial requirements for constructing and operating the proposed facilities, including a table summarizing capital requirements and operating expenses, and their principal components. The discussion shall indicate and explain the basis for any assumed escalation rates and costs of capital, fuel, or other principal components. If more than one site is proposed, significant cost differences between alternative sites should be identified.

(2) A preliminary summary of the cost of the installed generating capacity (expressed in $/kw) and of the cost of energy at the busbar (expressed in H/kwhr). A list of principal cost components, an explanation of the source of derivation of each, and the calculations used to arrive at the summary costs above shall be provided. Any major uncertainties in the cost figures used or assumptions relied upon shall be explicitly identified and their significance shall be discussed.

(3) In situations where electric transmission facilities serve more than one geothermal power plant, the notice shall identify costs associated with such transmission facilities in a manner which recognizes the allocation of such costs over more than one unit.

(4) A general discussion of the estimated impact of the proposed facilities on customer rates during construction and after commencement of operation.

(d) In a section entitled "Applicable Laws, Ordinances, Standards, Permits, and Approvals," the notice shall contain tables which identify:

(1) Laws, regulations, standards, adopted local, regional, state, and federal land use plans, permits, and approvals applicable to the proposed project, and a discussion of the applicability of each.

(2) The agency with jurisdiction to issue applicable permits and approvals or to enforce such identified laws, regulations, standards, and adopted local, regional, state, and federal land use plans, or agencies which would have permit approval or enforcement authority but for the exclusive authority of the commission to certify geothermal sites and related facilities.

(3) The name, title, and address, if known, of an official within each agency who will serve as a contract person for each respective agency.

(4) References to the text of the notice wherein the compatibility of the proposed project with each identified law, regulation, standard, adopted local, regional, state, and federal land use plans, permits and approvals, is discussed.

COMMENT: The information requirements set forth in portion IV of Appendix A applies only to facilities to be constructed by the applicant, and not to the geothermal field. The applicant's discussion in this portion shall give particular consideration to those county hydrologic elements, county solid waste management laws, state water use plans, and water basin plans identified in Appendix A.V.B.

(e) In a section entitled "Environmental Description and Project Effects," the notice shall identify potential physical, biological, social, economic and cultural effects of the proposed project and contain:

(1) With respect to air quality:

(A) Available baseline air quality data including concentrations of pollutants, and a comparison of air quality data with applicable ambient air standards.

(B) Available meteorological data, including wind speed and direction, ambient temperature, relative humidity, stability and mixing height, and available upper air data.

(C) A discussion of the extent to which the data in subsections 1 and 2 above are typical of conditions at the proposed site and the KGRA; also, provide a description of the monitoring program, if any, used to obtain required data, including the location and elevation of monitoring stations, parameters measured, and duration of monitoring.

(D) A worst case air quality impact analysis for each proposed site and related facility and source of air emissions, assuming worst case meteorological conditions and emissions consistent with applicable emission standards, including the cumulative effect of wells and pipelines in normal and shutdown modes of operation, in order to determine the worst case impact on potential sensitive receptors. Such analysis shall include the basis of the worst case and consider topography, meteorology, and contributions from other sources in the KGRA.

(E) A general description of normal and shutdown modes of operation for the proposed facility or facilities that affect the release of pollutant emissions into the atmosphere for existing and proposed sources or groups of sources that would have additive effects, including estimated frequency of occurrence, duration, location, and estimated emission rate for each pollutant of interest.

(F) A general discussion of expected or confirmed chemical constituencies of gaseous and particulate pollutants from the proposed project including wells and resource conveyance lines.

(G) For facilities using an external water supply, an estimate of cooling tower particulate and gaseous emissions associated with each alternative cooling water source considered.

(H) A discussion of applicable rules, including but not limited to standards, new source review, and significant deterioration rules established pursuant to Chapter 1 (commencing with # 39000) of Division 26 of the Health and Safety Code, and the methods proposed to satisfy these rules.

(2) With respect to hydrology, water supply, and water quality:

(A) A description of surface waters which may be a source of cooling water or which may be potentially impacted by the proposed project. Such description shall indicate the proximity of such surface waters to the geothermal field and power plant site, availability of cooling water for the project, competitive uses for the cooling water supply, quality of cooling water supply, and available data on existing quality of surface waters potentially impacted or any programs proposed to identify and monitor water quality.

(B) A description of local and regional groundwater aquifers and related geologic formations, structures, recharge areas, and major groundwater uses.

(C) A description of existing regional and local precipitation and storm runoff data, including maximum probable precipitation and flood potential.

COMMENT: If the applicant proposes to use other than maximum probable precipitation for flood hazard mitigation design criteria, other historical extreme precipitation values used for design criteria shall be provided.

(D) A general discussion of any liquid discharges, permitted or accidental, or disposals of solid waste materials which could impact the quality of surface or groundwater.

(E) A general discussion of potential project impacts on local hydrologic flows and runoff.

(F) A general discussion of the potential for flood hazard to the proposed facilities.

(G) A general discussion of potential mitigation measures to protect surface and groundwaters from project impacts, including the identification of any spill clean-up contingency plans proposed or under consideration at the time of filing of the notice.

(H) A discussion of potential project impacts on the temperature, mineral content, rate of flow, and other aspects of nearby utilized thermal springs.

(3) With respect to geology and seismicity:

(A) A general description based on existing data, including maps, of the tectonic history, fault activity, and historical seismicity within 50 km of the site, including all known or inferred potentially active and active faults, an estimate of the magnitude of MCE and MPE derived for each active fault, and the epicenter and date of any earthquake with a magnitude equal to or in excess of M4 or which could be reasonably inferred to have caused ground acceleration of greater than 0.1 G at the site.

(B) The MCE and MPE peak bedrock or ground accelerations derived for the proposed site.

(C) A brief discussion of the known stratigraphic units and significant geologic structures within 10 km of the site with emphasis on those potentially associate with geotechnical problems.

(D) A map and detailed description, based on existing data, of all recognized stratigraphic units, geologic structures, and geomorphic features or processes within the leasehold boundaries or two km of the site, whichever is greater, with emphasis on those associated with geotechnical problems in the site area. The discussion should include the following anticipated site conditions: ground rupture from faulting, mass wasting and slope stability, liquefaction or settlement, subsidence and associated ground rupture, expansion or collapse of soil structures, cavities, and other adverse site or foundation conditions.

(E) A description, with maps, of commercially developed mines, gem, mineral, and fossil collecting localities, fumaroles, geysers, hot springs, or other geologic resources of unique recreational or scientific value which may be affected by the proposed project.

(F) A detailed description, including maps showing location, of potential impacts to the geological environment resulting from construction, operation, or failure of the proposed facilities including inducement or acceleration of mass wasting, subsidence seismicity, and fault rupture.

COMMENT: The geological environment includes, but is not limited to, developed mines, gem, mineral and fossil collecting localities, fumeroles, geysers, and thermal springs.

(G) A general description of typical mitigation measures, if any, under consideration to eliminate or reduce identified geologic hazards and impacts to the geologic environment.

COMMENT: The 2, 10 and 50 km distances in items 4, 3, and 1 respectively, are intended as guidelines, and may decrease, if reasons are given, or increase, as geologic conditions warrant.

COMMENT: Also, for purposes of the proceedings on the notice, the MCE, MPE and associated accelerations requested in items 1 through 7 above are intended to establish a common data base with respect to seismic setting and are not meant to imply proposed levels of seismic design.

Furthermore, where an applicant pursues a certification process pursuant to Section 1803(a) and files a notice early in the resource development process information related to the geologic environment may be based on existing information without performing original research and investigation.

Finally, the geotechnical information requested above is consistent with the policy adopted by the State Board of Registration for Geologists and Geophysicists on July 17, 1978.

(4) With respect to agriculture and soils:

(A) A map of soils at the site and within geothermal, the leasehold based on available soils information, and a description of mapped soils including soil erodability, soil taxonomy, and physical and chemical characteristics. The description of soils shall be sufficient to allow an evaluation of soil erodability, infiltration rate, permeability, and of the potential for leaching of pollutant deposition and cycling of pollutants in the soil-vegetation system.

(B) An assessment of the general effects of construction and operation of each proposed geothermal power plant facility on soils including, but not limited to, accelerated soil loss, soil dispersal and deposition patterns and quantities, the effects of power plant emissions on surrounding soil-vegetation systems, and the methods used to determine such effects.

(C) A discussion of the effects of construction and operation of each proposed geothermal power plant facility on agricultural resources, including the effects of cooling tower drift on crops and the removal of prime agricultural land from production. The discussion of these effects should be based on land capability classifications and storied ratings for all soil series of the proposed site.

(D) A discussion of mitigation measures under consideration to minimize effects on agricultural resources and soil-vegetation systems and to prevent off-site sediment transport.

(5) With respect to biological resources:

(A) A description of vegetational communities, general wildlife and aquatic resources, and dominant species within the area potentially impacted by the proposed project.

(B) An identification on a map and a description of the known probable distribution of fully protected, rare, threatened or endangered plant and animal species, and commercially or recreationally valued species and habitats that may be adversely affected by the project.

(C) An identification of biological species of special concern and areas of critical biological concern.

COMMENT: In the notice, an attempt shall be made to identify species of special concern and areas of critical concern that may be, or are known by the applicant to be, of special interest to: (1) local, state, and federal agencies responsible for biological resources within the area potentially biologically impacted by the project; and/or (2) educational institutions, museums, biological societies and members of the public that might have specific knowledge of the biological resources within the area.

(D) A description of the potential effects of the proposed project on legally protected and commercially and recreationally valued biological resources, species of special concern, and areas of critical biological concern.

(E) A discussion of measures proposed or under consideration to mitigate impacts to identified biological resources.

(F) A general discussion of the effects of the proposed project upon timber and forest land.

(6) With respect to noise:

(A) A land use map which identifies noise sensitive receptors or groups of receptors in the vicinity of the proposed site and related facility, and geothermal leasehold, which includes future land uses identifiable from adopted land use plans and filed development plans at the time of filing the notice.

(B) A discussion of either the results of daytime and nighttime ambient noise surveys at the site and at sensitive receptors, including the general weather conditions during the surveys, or any plans to conduct such surveys.

COMMENT: If noise concerns are likely to be a significant consideration for site acceptability due to the proximity of the proposed facilities to sensitive noise receptors, the applicant should conduct ambient noise surveys for inclusion in the notice; without such information, no conclusive findings shall be made during the proceedings on the notice regarding the acceptability of project noise impacts.

(C) A description of major plant noise sources and the estimated range of noise emission levels and characteristics.

(D) An estimation of the plant construction and operational noise levels at sensitive receptors potentially impacted by project noise.

(E) A discussion of applicable noise standards and ordinances and the general conformance of the proposed project therewith.

(7) With respect to cultural resources:

(A) A description of all cultural resource properties (archaeological, historical, paleontological, and areas of unique religious or scientific value) within the area potentially impacted by the project identifiable from a literature and reconnaissance survey.

(B) A discussion of those cultural resources listed in, declared eligible for, or nominated to the National Register of Historic Places; those resources that are listed as state or local landmarks or points of historic interest; and those resources that are otherwise protected by existing law.

(C) A description of the methodology and techniques used to identify and evaluate site area cultural resources and any plans for future studies.

(D) A description of potential impacts on identified cultural resources from construction and operation of each proposed geothermal power plant, and the measures under consideration for mitigation of such impacts.

(8) With respect to social and economic effects:

(A) A general description, with an accompanying map, of the existing and proposed future land uses of the proposed power plant site and geothermal leasehold as designated by applicable land use plans or guidelines of local, regional, state, and federal agencies; of the present and proposed land use classifications for the site, leasehold and adjoining areas which

are potentially impacted by the project; and the location of municipal, county, regional, state and federal parks, recreational areas, scenic areas, wildlife sanctuaries, religious sanctuaries, or natural areas in the vicinity of the site and leasehold.

(B) A general description of the social and economic setting of the area subject to impact from the proposed project.

(C) An estimation of labor required during construction and operation of the proposed geothermal power plant and the geothermal field.

(D) An estimation of the level of temporary and permanent project-related immigration to the local area.

(E) An estimation of the impact of construction activities and project operation on the local economy and on the availability of public services and facilities fixtures.

(f) In a section entitled "Public Health Impacts," the notice shall contain the following information on the potential public health effects from the construction and operation of the proposed power plant and geothermal field:

(1) An identification, to the extent known, of solid gaseous, and water-borne emissions, such 2S, SO2, NH3, and B, total suspended and respirable particulates, trace metals, and radioactive materials, which may cause adverse health effects in the surrounding population.

(2) An estimation of the ambient concentrations for the pollutants identified in subsection A of this section, and the worst case incremental increase expected as a result of project emissions.

(3) A general discussion of concentrations, to the extent known, required for the creation of potentially significant adverse health effects from identified pollutants as disclosed in available literature. The discussion shall include variables due to differing age groups within the general population and portions of the general population which may be particularly affected by any identified emissions. The discussion shall also include the age distribution and size of the population which may be potentially affected by these emissions.

(4) A discussion of all existing federal, state, and local health standards for identified project emissions.

(g) In a section entitled "Power Plant Reliability" the notice shall contain the following information on site dependent reliability-related factors:

(1) A general discussion of the impact on plant reliability from potential hazards to each proposed facility caused by, but not limited to, ground rupture by faulting, mass wasting, and slope stability, liquefaction or settlement, subsidence and associated ground rupture, expansion or collapse of soil structures, cavities or other adverse foundation conditions, flooding, meteorological and climatic extremes, and cooling water supply reliability.

(2) A general discussion of performance and design criteria for protecting the facilities from potential hazards.

(3) A general description of the basis for formulation or selection of performance and design criteria discussed in subsection B of this section.

(h) In a section entitled "Electric Transmission Facilities," the notice shall contain the following information:

(1) A description of any electric transmission facilities, lines, stations, or other equipment, whether or not within the exclusive permit authority of the commission, which will be required to carry electrical power from each proposed geothermal power plant at each of the sites presented in the notice to the principal load centers to be served by the new power plant. Such description shall include the width of rights-of-way and the physical and electrical characteristics of towers, conductors, and insulators. For electric transmission facilities outside the exclusive permit authority of the commission, response to this subsection may be limited to information, such as capacity and voltage levels and right-of-way widths, which will allow the commission staff to perform an electric transmission system planning analysis and to assess the cumulative environmental impacts.

(2) A discussion of the need for the additional electric transmission lines, stations, or other equipment referred to in the notice, the basis for selecting principal points of junction with the existing electric transmission system, and the capacity and voltage levels of the proposed lines along with the basis for selection of the capacity and voltage levels.

(3) A discussion of the extent to which the proposed electric transmission facilities have been designed, planned, and/or routed to meet the transmission requirements created by additional generating facilities planned by the applicant or any other entity in the same general area.

COMMENT: A precise definition for "general area" as used here cannot be provided. In some instances the KGRA in which the proposed geothermal power plant is to be located would comprise the "general area." In all cases the applicant should acknowledge whether or not power plants proposed in an area which could be served by common transmission to the main transmission grid where considered in determining the capacity and general route of the proposed electric transmission facilities.

(4) An identification of the owners and operators of the proposed electric transmission facilities and their legal interest in the proposed route or corridor.

(5) A discussion of alternative methods of transmitting power from each proposed geothermal power plant that were considered by the applicant, and the basis for selection of such methods.

(6) A map or maps showing the potential corridor or corridors proposed or alternative points of interconnection, and existing and proposed land uses at and adjoining the corridor(s) as designated by local, regional, state, and federal agencies.

(7) A description of the corridor or route selection process.

(8) A discussion of the physical, biological, social and cultural, environmental, and engineering advantages and disadvantages of the alternatives considered.

(9) A preliminary estimate of the costs of lines, stations, and other equipment that would be required.

(10) If the applicant does not or will not have an ownership interest in those electric transmission lines proposed to transmit power from the power plant to a point of junction with an interconnected system, a discussion of contracts executed or arrangements contemplated for the transmission of electric power from the proposed geothermal power plant.

COMMENT: Where tap lines are proposed, the discussion may be route-specific due to their limited length.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Sections 25001, 25006, 25110, 25502, 25504, 25506 and 25506.5, Public Resources Code.

Appendix F

Informational Requirements for a Small Powerplant Exemption

The application shall include the following information:

(a) The location of the power plant on a location map and described by section or sections, range, township, and county.

(b) Photographic representations adequately depicting proposed transmission corridors or routes and the visual appearance of the power plant site and its immediate surroundings.

(c) The type(s) of fuel to be used.

(d) The methods of construction and operation of the power plant.

(e) A discussion of the environmental and energy resources impacts which may result from the construction or operation of the power plant.

(f) A discussion of proposed alternatives to the power plant, including the alternative of no power plant, and any mitigation measures proposed to reduce environmental impact.

(g) The need for the power plant.

(h) The compatibility of the power plant with the most recent biennial report issued pursuant to Section 25309 of the Public Resources Code.

(i) A list, including the names and addresses of persons to contact, of federal, state, regional, or local agencies whose standards, ordinances, or laws including long range land use plans or guidelines adopted by the state or any local or regional planning agency are applicable to the proposed project. The list shall include a brief description of the applicability of such standards, ordinances, laws, plans, or guidelines for each agency.

(j) A discussion of that portion of the gross energy output which will be used for the site and related facility.

(k) Any other information that the applicant desires to submit.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25541, Public Resources Code.

Article 7. Additional Provisions for Considering Expedited Applications Under Public Resources Code Section 25550

§ 2021. Purpose of Expedited Proceeding; Applicability of Regulations

(a) The purpose of a six-month application proceeding is to review and certify environmentally acceptable sites and related facilities as expeditiously as possible so as to ensure a reliable supply of electrical energy in a manner consistent with public health and safety, promotion of the general welfare, and protection of the environment. Toward that end, the commission shall give priority in review to applications that qualify for an expedited decision under this Article and demonstrate superiority with respect to environmental protection or efficiency in performance.

(b) The provisions of this Article apply to all applications filed pursuant to Public Resources Code section 25550 and 25550.5, notwithstanding any other provision to the contrary in Chapters 1, 2, and 5. This Article changes the otherwise applicable deadline for a final decision on an application for certification and adjusts other procedural deadlines as appropriate. This Article does not modify any substantive or other procedural requirements applicable to an application proceeding.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 25500, 25550 and 25550.5, Public Resources Code.

§ 2022. Information Requirements

(a) Any applicant requesting that the commission reach a decision on an application for certification within six months after acceptance of the application shall meet the requirements of this section.

(b) To be eligible for a decision within six months after acceptance of an application, the application shall contain all of the information that is relevant to the project and required in Appendix B to this Chapter. If an information requirement in Appendix B is not relevant to a proposed project because of its design, location, or other particular circumstance, the application need not provide the information and, instead, shall provide an explanation with specific facts as to why the requirement is not relevant to the project as proposed. Applicants are encouraged to request a prefiling review pursuant to section 1709.5 to determine the extent to which documentation relevant to a proposed application is sufficient to meet the information requirements in Appendix B and to determine which information requirements, if not all, are relevant to the proposed application. The application shall also contain all of the following:

(1) Substantial evidence that the project as proposed in the application will comply with all standards, ordinances, and laws applicable at the time of certification, including:

(A) a list of all such standards, ordinances, and laws;

(B) information demonstrating that the project as proposed in the application will comply with all such standards, ordinances, and laws;

(C) where a standard, ordinance, or law is expected to change between the time of filing an application and certification, information from the responsible jurisdiction documenting the impending change, the schedule for enactment of the change, and whether the proposed project will comply with the changed standard, ordinance, or law; and

(D) a list of the requirements for permitting by each federal, state, regional, and local agency that has jurisdiction over the proposed project or that would have jurisdiction, but for the exclusive jurisdiction of the commission, and the information necessary to meet those requirements;

(2) substantial evidence that the project as proposed in the application will not cause a significant adverse impact on the environment, including all the following:

(A) a detailed modeling analysis assessing whether the cumulative impacts of all inert criteria pollutants (NOx, SO2, CO, and PM10) from the project's typical operating mode in combination with all stationary emissions sources within a six-mile radius of the proposed site that have received construction permits, but are not yet operational, and all stationary emissions sources that are currently undergoing air district permit application review will cause or contribute to a violation of any ambient air quality standard;

(B) a description of the project's planned initial commissioning phase, which is the phase between the first firing of emissions sources and the consistent production of electricity for sale to the market, including the types and durations of equipment tests, criteria pollutant emissions, and monitoring techniques to be used during such tests, and air dispersion modeling analyses of the impacts of those emissions on state and federal ambient air quality standards for NO2, SO2, CO, and PM10;

(C) a detailed description of the mitigation, which an applicant shall propose, for all project impacts from criteria pollutants that currently exceed state or federal ambient air quality standards, but are not subject to offset requirements under the district's new source review rule;

(D) a modeling analysis that identifies the extent of potential public exposure to toxic substances, as identified in subsection (g)(9)(A) of Appendix B, resulting from normal facility operation;

(E) if the project will result in a discharge of waste that could affect the water quality of the state, a complete report of proposed waste discharge as required by section 13260 of the Water Code. This will allow for issuance of waste discharge requirements by the appropriate regional water quality control board within 100 days after filing of the application in accordance with Public Resources Code section 25550(d).

(F) a demonstration, based on appropriate data including, but not limited to, scientific surveys taken at the appropriate time of year, that the project will have no significant impact on wetlands, plant or animal species that are endangered, threatened, or of concern under state or federal law, or the areas listed in Public Resources Code section 25527;

(G) with respect to the handling of hazardous materials, a demonstration that:

(i) the project will not use or store any regulated substance defined in Section 25532(g) of the California Health and Safety Code; or

(ii) the project is eligible for Program 1 status pursuant to Section 68.10 of Part 68 of Title 40 of the Code of Federal Regulations or can demonstrate that no worst case accidental release would result in a plausibility (risk greater than 1 in 1,000,000) of an impact at the nearest public receptor above the maximum airborne concentration below which it is believed nearly all individuals could be exposed for up to one hour without experiencing or developing irreversible or other serious health effects or symptoms that could impair an individual's ability to take protective action. The Emergency Response Planning Guidelines, Level 2 (ERPG 2) reflect this maximum airborne concentration standard.

(H) if the project will store or use a regulated substance defined in Section 25532(g) of the Health and Safety Code, a demonstration either that the boundary of the powerplant site will not be within 1000 feet of any residential area, school, general acute care hospital, long-term health care facility, or child day care facility as such terms are defined in section 25534.1 of the Health and Safety Code or that the project will pose no plausible potential for exposure at such facilities from an accidental release of the regulated substance; and

(I) a demonstration that the proposed facility will not require storage of gaseous flammable or explosive materials in quantities greater than 25000 standard cubic feet;

(3) substantial evidence that the project will not cause a significant adverse impact on the electrical system, including all of the following:

(A) an Interconnection Study identifying the electrical system impacts and a discussion of the mitigation measures considered and those proposed to maintain conformance with NERC, WSCC, Cal-ISO or other applicable reliability or planning criteria based on load flow, post transient, transient, and fault current studies performed by or for the transmission owner in accordance with all applicable Cal-ISO or other interconnection authority's tariffs, operating agreements, and scheduling protocols and

(B) a full description of the facilities, if any, that are required for interconnection, including all such facilities beyond the point where the outlet line joins with the interconnected system and a full description of the environmental setting, environmental impacts, and any recommended mitigation measures proposed by the applicant for any required facilities beyond the point where the outlet line joins with the interconnected system;

(4) a discussion of the potential for disproportionate impacts from the project on minority or low-income people; such discussion shall include, but not be limited to, all of the following:

(A) demographic information by census tract, based on the most recent census data available, showing the number and percentage of minority populations and people living below the poverty level within six miles of the proposed site;

(B) one or more maps at a scale of 1:24,000 showing the distribution of minority populations and low-income populations and significant pollution sources within six miles of the proposed site, such as those permitted by the U.S. Environmental Protection Agency (Toxic Release Inventory sites), the local air quality management district, or the California Department of Toxic Substances Control; and

(C) identification of available health studies concerning the potentially affected population(s) within a six-mile radius of the proposed power plant site;

(5) the following information to demonstrate that the project, if certified, is likely to be constructed and operated;

(A) information demonstrating the applicant's control, by ownership, lease, option, or other legally binding agreement that the Commission finds acceptable, of the proposed site and

(B) a will-serve letter or similar document from each provider of water to the project, indicating each provider's willingness to provide water to the project and describing all conditions under which the water will be provided, and a discussion of all other contractual agreements with the applicant pertaining to the provision of water to the project.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 25216.5(a), 25520 and 25550(b), Public Resources Code.

§ 2023. Data Adequacy Review and Acceptance

(a) Upon the receipt of an application filed pursuant to this Article, the executive director or a delegatee shall review all documentation to determine whether the application contains all the information required by section 2022 and is, therefore, complete. Except as provided by this section the review of the application for completeness shall be in accordance with section 1709.

(b) No later than 45 days after receipt of an application, the commission shall act upon the executive director's recommendation as to whether the application contains the information required by section 2022 and is, therefore, complete. If the commission determines that the application is complete, the application shall be accepted as of that date and the proceeding for reaching a final decision within six months shall begin. Based on meeting the information requirements of section 2022, the application shall be considered to be an initial showing that there is substantial evidence that the project will not cause a significant adverse impact on the environment or electrical system and will comply with all applicable standards, ordinances, and laws.

(c) If the commission determines that the application contains all of the information required by Appendix B to this Chapter, but not all of the additional information required by section 2022, the application shall be deemed accepted for purposes of reaching a final decision within 12 months. The applicant, however, may request an immediate suspension at the time of acceptance for a 12-month decision to allow for the submittal of additional information to meet the requirements of section 2022(b)(1) through (5). If the applicant makes such a request, the commission shall specify in writing what information is needed to complete the application for a six-month decision.

(d) If the commission determines that the application is incomplete with respect to Appendix B to this Chapter, the application shall not be accepted. The commission shall indicate in writing those parts of the application that fail to meet the information requirements and the manner in which they can be made complete.

(e) The applicant may file additional information and the commission, in accordance with section 1709, shall determine, within 30 days of receipt of the data, whether the information is sufficient to complete the application. The application shall be eligible for a final decision within six months from the day the commission determines that the application is complete pursuant to section 2022.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 25522(b) and 25550, Public Resources Code.

§ 2024. Intervention.

Any person may file a petition to intervene within 100 days after the acceptance of an application. The petition shall be served upon all parties.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 25214 and 25550, Public Resources Code.

§ 2025. Discovery.

Within 90 days after acceptance of the application, any party may file a data request of the applicant or of any other party. Absent an objection pursuant to section 1716(f), the applicant or other party shall provide the information requested within 20 days of the date that the request is made or by another date agreed to by the requesting and responding parties or ordered by the committee.

Note: Authority cited: Section 25213 and 25218(e), Public Resources Code. Reference: Sections 25210, 25519(b) and 25550, Public Resources Code; and Section 11181, Government Code.

§ 2026. Agency Comments.

(a) Within 60 days after the acceptance of an application under this Article, the California Independent System Operator or other interconnecting authority and all local, regional, and state agencies that have jurisdiction over the project or would have jurisdiction, but for the exclusive jurisdiction of the commission, shall file and serve on all parties their preliminary approval, comments, determinations, and opinions.

(b) Within 100 days after the acceptance of an application, all local, regional, and state agencies that have jurisdiction over the project or would have jurisdiction, but for the exclusive jurisdiction of the commission, shall file and serve on all parties their final comments, determinations, and opinions.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 25519(f), 25519(j), 25523(d) and 25550, Public Resources Code.

§ 2027. Staff Reports.

(a) Within 75 days after acceptance of an application that is eligible for a six-month decision, the staff shall file an initial report of the environmental impacts and other aspects of the proposed project in accordance with sections 1742, and 1744. Based on information known and available to the staff, the staff's initial report shall:

(1) discuss whether the project complies with all applicable standards, ordinances, and laws,

(2) identify and assess the impacts that may result from the project on the environment,

(3) identify and assess the impacts that may result from the project on the electrical system,

(4) assess the sufficiency of the mitigation as proposed by the applicant,

(5) recommend mitigation where the staff believes it is needed in addition to or as an alternative to that proposed by the applicant,

(6) discuss the feasibility of available site and/or facility alternatives that substantially lessen the significant adverse impacts of the project on the environment, and

(7) identify the areas in need of further analysis that will be the focus of the final staff report on the project.

(b) Within 120 days after the acceptance of an application, the staff shall file a final report on the proposed project in accordance with sections 1742, and 1744. The staff's final report may focus on those areas identified for further analysis in the staff's initial report and may incorporate by reference or otherwise rely on the initial report for all other areas. The report shall serve as the staff's final assessment of the project and be presented as testimony at the hearings under section 2029.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 21081, 25217(b), 25519(c), 25523(a), 25523(d) and 25550, Public Resources Code.

§ 2028. Removal of the Project from the Six-Month Process.

(a) At any time after acceptance of the application, but no later than the final date for filing testimony, any party may petition the committee to remove the project from the provisions of this Article and thereby change the deadline for a commission decision from six months after acceptance to twelve months after acceptance. The petition shall show that there is substantial evidence in the record that the project:

(1) may result in a significant adverse unmitigated impact on the environment;

(2) may result in a significant adverse unmitigated impact on the electrical system;

(3) will not comply with an applicable standard, ordinance, or law; or

(4) has changed substantially from what was proposed in the application and requires substantial new analysis or generates substantial public controversy. The petition and other pleadings shall be filed in accordance with sections 1208 and 1208.1.

(b) Any person, or if the petition is filed more than 100 days after acceptance of the application, any party, may comment on the petition in writing within 10 days after the petition is served.

(c) Within 20 days after filing of the petition, the committee shall determine whether there is substantial evidence in the record that the project:

(1) may result in a significant adverse unmitigated impact on the environment;

(2) may result in a significant adverse unmitigated impact on the electrical system;

(3) will not comply with an applicable standard, ordinance, or law; or

(4) has changed substantially from what was proposed in the application and requires substantial new analysis or generates substantial public controversy.

(d) If the committee's determination with respect to subsection (1), (2), or (3) is in the affirmative, the committee shall grant the petition and order that the application shall no longer be reviewed under this Article and that a final decision on the application shall be reached within 12 months of acceptance of the application in accordance with Public Resources Code section 25540.6.

(e) If the committee's determination with respect to subsection (4) is in the affirmative, the committee may, but need not, grant the petition.

(f) The committee's grant or denial shall be effective 5 days after it is filed in the Docket and served on all parties, unless it is appealed under subsection (g), in which case the ruling is stayed until the Commission rules on it.

(g) Any party may appeal the committee's ruling within 5 days after it is filed in the Docket and served on all parties. The commission shall rule on an appeal at the next earliest business meeting for which there is sufficient time for public notice of the appeal as an item on the agenda. In ruling on the appeal the commission shall use the criteria in subsection (c).

(h) The time between a committee ruling on a petition and final commission disposition of the matter shall not be counted in the calculation of any deadlines pursuant to this Article.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Section 25550(c), Public Resources Code.

§ 2029. Hearings.

(a) Within 135 days after acceptance of the application, the committee shall commence evidentiary hearings.

(b) Any party may submit testimony in accordance with a schedule determined by the committee.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 25216.5(a), 25521 and 25550, Public Resources Code.

§ 2030. Presiding Member's Proposed Decision; Commission Decision.

(a) Within 20 days after the end of the hearings held under section 2029, the presiding member of the committee shall, in consultation with the other committee member, file a proposed decision in accordance with sections 1212 and 1745.5.

(b) Within 15 days after filing and service of the presiding member's proposed decision, any person may file and serve written comments.

(c) At least 30 days after filing and service of the presiding member's proposed decision, the commission shall hold a hearing and do one of the following:

(1) grant a certificate to the project,

(2) deny the application for certification, or

(3) determine, using the criteria in Section 2028(c), that a final decision on the application shall be made within twelve months of its acceptance.

(d) The Commission shall not grant a certificate unless it finds that:

(1) the project will not cause a significant adverse unmitigated impact on the environment,

(2) the project will not cause a significant adverse unmitigated impact on the electric system,

(3) the project will comply with all applicable standards, ordinances, and laws,

(4) the applicant has a contract with a general contractor and has contracted for an adequate supply of skilled labor to construct, operate, and maintain the project, and

(5) the project complies with all regulations adopted by the Commission that ensure that an application addresses disproportionate impacts in a manner consistent with Section 65040.12 of the Government Code.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 21081, 25216.5(a), 25519(c), 25523 and 25550, Public Resources Code.

§ 2031. Construction Deadline.

(a) The deadline for the commencement of substantial construction of the project shall be 12 months after the effective date of the decision on an application accepted and processed pursuant to this Article.

(b) Substantial construction shall be defined as the following:

(1) completion of at least thirty percent of the engineering design of the entire project and

(2) completion of at least five percent of the physical construction of the entire project, absent circumstances beyond the control of the applicant.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code. Reference: Sections 25216.5(a), 25523(a), 25550 and 25550(f), Public Resources Code.

Chapter 5.5. Public Interest Energy Research (PIER) Program

Article 1. Sole and Single Source Contracts

§ 2100. Award of Sole Source Contracts.

The following subdivisions apply to contracts in the Public Interest Energy Research (PIER) Program awarded on a sole source basis, as defined by Public Resources Code section 25620.5(f), without competitive bidding or competitive negotiations. Sole source contracts are awarded at the sole discretion of the California Energy Commission (Commission).

(a) The cost of the proposed contract shall be reasonable; and

(b) The Commission shall make a determination, in consultation with the Department of General Services, that at least one of the following requirements is met:

(1) The proposed contract is unsolicited and meets the evaluation criteria of Public Resources Code Section 25620 et. seq.; or

(2) The expertise, service or product is unique; or

(3) The urgency of the need for the information or deliverable is such that a competitive solicitation would frustrate timely performance; or

(4) The proposed contract funds the next phase of a multiphased project and the existing agreement is being satisfactorily performed; or

(5) The proposed contract is in the best interests of the state.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

§ 2101. Award of Single Source Contracts.

The following subdivisions apply to contracts in the PIER Program awarded on a single source basis, as defined by Public Resources Code section 25620.5(e), without competitive bidding or competitive negotiations. Single source contracts are awarded at the sole discretion of the Commission.

(a) The Commission shall make a determination that all of the following requirements are met:

(1) Two or more business entities are capable of supplying or providing the goods or services that meet a specified need of the Commission; and

(2) The Commission has thoroughly evaluated at least two possible contractors for the work described in the proposed contract; and

(3) The cost of the proposed contract is reasonable; and

(4) The proposed contract is in the best interests of the state.

(b) The Commission shall make a determination that at least one of the following requirements is met:

(1) The proposed contract offers or includes a collaborative industry or public/private effort; or

(2) The proposed contract offers or includes leveraged funding; or

(3) The proposed contract is urgent and the need for the information or deliverable is such that a competitive solicitation would frustrate timely performance; or

(4) The proposed contract is with an entity that is prohibited by law from participating in a competitive solicitation.

(c) The Commission shall document findings regarding the following:

(1) Rationale for choosing the proposed contractor versus other possible contractors; and

(2) Rationale for why the Commission did not use competitive bidding procedures; and

(3) Impact of the contract with the proposed contractor versus other possible contractors.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

§ 2102. Factors for Consideration.

In determining whether to award a contract on a sole or single source basis, the Commission shall consider evaluation factors that include but are not limited to:

(a) Does the proposal advance energy science or technology and provide benefits to California citizens?

(b) Is the proposal technology not adequately addressed by competitive and regulated markets?

(c) Does the proposed contract address at least one issue or goal specified in the most recent PIER Program area plan, appropriate subject area plan or Strategic Plan?

(d) Is the technological approach, analysis or process used substantially the same as another contract already funded under the PIER Program?

(e) Is the proposed contract substantially the same as a proposal previously submitted to the Commission and rejected on the basis of technical issues or administrative requirements?

(f) Was the proposed contract received within the timeframe directly before the anticipated publication date for a future PIER solicitation for which the proposed contract is eligible?

(g) Was the proposed contract received within the timeframe directly after the release date of a past PIER solicitation for which the proposed contract was eligible?

(h) What is the cost of the proposed project?

(i) What is the level of public and private benefits compared to proposal costs to be funded by the PIER program and by match funds?

(j) What is the overall technical quality and merit of the proposal?

(k) What are the qualification of the project team?

(l) What is the likelihood of and timeframe for success of the proposal?

(m) What are the technical, market and financial risks of the proposal?

(n) Is the proposal consistent with the energy policies of the State of California?

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

§ 2103. Procedures and Format.

The Commission shall adopt procedures that will set forth the specific process that the Commission shall follow in awarding contracts on a sole or single source basis. The procedures shall also set forth format requirements for proposals that request contract award on a sole or single source basis. The Commission may reject proposals that do not follow these format requirements.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

§ 2104. Public Agency Exemption.

The requirements in this article do not apply to the following:

(a) The Regents of the University of California;

(b) Trustees of the California State University;

(c) Any public entity as defined by Public Contract Code section 1100;

(d) Any unit of the federal government.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

Article 2. Competitive Negotiations

§ 2110. Definitions.

For purposes of this article, the following definitions shall apply:

(a) "Bidder" shall mean any person or entity attending a Pre-Bid Conference or participating in any part of the Competitive Negotiations Solicitation (CNS) process;

(b) "Commission" shall mean the California Energy Commission and/or its staff;

(c) "Competitive Negotiations Solicitations" or "CNS" shall mean the competitive negotiations bid process described in this article;

(d) "Confidential Meeting" shall mean the private meeting between Bidder and the Commission regarding a Discussion Proposal;

(e) "Discussion Memorandum" shall mean the written document prepared by the Commission memorializing the discussion during a Confidential Meeting;

(f) "Discussion Proposal" shall mean a proposal submitted according to the requirements set forth in section 2116;

(g) "Final Proposal" shall mean a proposal submitted according to the requirements set forth in section 2117;

(h) "PIER" shall mean the Public Interest Energy Research, Development and Demonstration Program, established pursuant to AB 1890 (chap. 854, stats. 1996) and SB 90 (chap. 905. stats. 1997);

(i) "Pre-Bid Conference" shall mean the question/answer forum conducted by the Commission after release of the CNS open to all potential Bidders for the purpose of asking questions about the CNS;

(j) "Proposal" includes a Discussion Proposal or Final Proposal.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

§ 2111. Intent and Overview of Competitive Negotiations Solicitation.

(a) The Commission may use the CNS process in any of the situations described in Public Resources Code section 25620.5(c);

(b) The intent of the CNS process is to provide an alternative competitive bidding process for research and development solicitations for PIER projects. The CNS differs from a traditional Request for Proposal in that the CNS provides a mechanism for the Commission to

have discussions with Bidders on the content of each Discussion Proposal in an effort to create a fully responsive Final Proposal. The Commission has the discretion to decide the appropriate screening, evaluation and selection criteria for each CNS;

(c) In the CNS process, the Commission may include in the CNS an option or requirement for Bidders to submit one or more Discussion Proposals before the Final Proposal, as needed for the specific technical requirements of the solicitation. For each Discussion Proposal the following process will be employed:

(1) The Commission evaluates the Discussion Proposal, without assigning a numerical score;

(2) The Commission prepares a discussion agenda, which details the areas in the Discussion Proposal that are not responsive to the requirements in the CNS and where it can be improved;

(3) The Bidder and Commission have a Confidential Meeting, giving the parties an opportunity to negotiate the Discussion Proposal(s);

(4) The Commission prepares and sends to Bidder a Discussion Memorandum memorializing the discussion during the Confidential Meeting;

(d) The process outlined in subdivision (c) will be repeated for each Discussion Proposal in the CNS.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

§ 2112. Pre-Bid Conference.

(a) The Commission may hold a Pre-Bid Conference. If the Commission holds a Pre-Bid Conference, the Commission shall specify in the CNS whether attendance at the Pre-Bid Conference is optional or mandatory for potential Bidders. If attendance at the Pre-Bid Conference is mandatory, potential Bidders must attend in order to be able to participate in the CNS process.

(b) The Commission shall accept questions submitted before and during the Pre-Bid Conference. The Commission may disseminate answers to recipients of the CNS and any party who attended the Pre-Bid Conference.

(c) Any oral communication from the Commission concerning the CNS is not binding on the Commission.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

§ 2113. Possible Modification/Addenda to CNS.

(a) The Commission has the right to modify the CNS at any time before Final Proposals are due, by issuing an addendum to the CNS;

(b) If changes are necessary to the CNS the Commission shall modify the CNS by issuing an addendum to the CNS.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

§ 2114. Notice of Intention to Bid.

(a) In order to screen Bidders for eligibility, the Commission may include in the CNS a requirement to submit a Notice of Intention to Bid. If the Notice of Intention to Bid is used, Bidders shall submit the Notice of Intention to Bid in order to be able to submit any Proposal responsive to the CNS. Future written communication from the Commission shall be delivered only to those Bidders who submit a Notice of Intention to Bid.

(b) Bidders may withdraw or modify a Notice of Intention to Bid at any time before the due date for the Notice of Intention to Bid.

(c) The Notice of Intention to Bid shall include, at a minimum, the following:

(1) Identify how the project will meet the requirements of the CNS;

(2) Identify Bidder team that will participate in Confidential Meetings;

(3) Confidentiality statement, the form of which shall be provided in the CNS, regarding use of confidential information during the CNS process.

(d) The CNS shall state any other requirements of the Notice of Intention to Bid. These requirements may include, without limitation, the following:

(1) Bidder's general qualifications;

(2) Bidder's technical qualifications;

(3) Financial measures such as net present value of proposed project;

(4) Capabilities of Bidder team as related to scope of work detailed in the CNS;

(5) Proof of financial ability to perform an awarded contract, including without limitation, financial statements, credit rating, liquidity ratios, equity ratio, equity rating and previous bankruptcy of Bidder, if any. If Bidder wants financial information to be kept confidential, Bidder must make a request for confidentiality pursuant to Title 20, California Code of Regulations, section 2501 et. seq. (See section 2125 regarding confidentiality requests.);

(6) Signed acceptance of the terms and conditions of the contract, if awarded.

(e) In the CNS, the Commission shall specify a date and time deadline for the Notice of Intention to Bid. If a Notice of Intention to Bid is received after the stated date and time, the

Commission will not consider the Notice of Intention to Bid, or any Proposals submitted by the party who submitted the late Notice of Intention to Bid. The Commission may change this deadline by notification to Bidders;

(f) The Commission shall screen Bidders on specific criteria detailed in the CNS. The Notice of Intention to Bid may be scored numerically;

(g) After reviewing the Notice of Intention to Bid, the Commission shall notify Bidders of whether the Bidder is eligible to continue in the CNS process and submit Proposals:

(1) If the Commission determines that the Bidder is not eligible to receive an award under the CNS, and that such ineligibility cannot be cured within the date and time deadline for Final Proposals, the Commission shall notify Bidder that it is disqualified from further submittals under the CNS. The Commission shall indicate the specific reasons why Bidder is disqualified. Such decision is a final administrative action. If a Bidder wishes to discuss this decision, the Bidder may request a meeting with the appropriate PIER subject area lead or designee, regarding why Bidder believes it should be considered eligible for a contract award.

(2) If the Commission determines that the Bidder is eligible to compete for an award under the CNS, the Commission shall notify Bidder that it is eligible to receive an award under the CNS and it may submit the first Discussion Proposal.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

§ 2115. Discussion Proposal Procedures.

(a) The Commission may include in the CNS an option or a requirement to submit one or more Discussion Proposals.

(b) Each Discussion Proposal shall employ an identical process outlined in this section.

(c) If a Notice of Intention to Bid is used, only those Bidders who are not disqualified after the Notice of Intention to Bid are eligible to submit a Discussion Proposal.

(d) Upon receipt of a Discussion Proposal, the Commission shall evaluate the Discussion Proposal for responsiveness to the CNS and the specific criteria detailed in the CNS. Discussion Proposals shall not be given a numerical score.

(e) The Commission shall schedule a Confidential Meeting with each Bidder.

(f) The Commission shall prepare a discussion agenda for each Discussion Proposal and shall send it to Bidder before the Confidential Meeting. The discussion agenda shall correspond to the criteria in the CNS, and note where the Discussion Proposal is not responsive to the requirements in the CNS and where the Discussion Proposal can be improved.

(g) The purposes of the Confidential Meeting are to ensure that the Bidder's Final Proposal will be responsive to the CNS and to give the parties an opportunity to negotiate the content of the Discussion Proposal.

(h) Oral statements by either party during any portion of the Discussion Proposal process shall not obligate either party.

(i) After the Confidential Meeting, the Commission shall send a response to each Bidder who participated in the Confidential Meeting:

(1) The response may take the form of a Discussion Memorandum, which memorializes agreements negotiated by the parties. The content of the Discussion Memorandum is binding on the Bidder. If the Bidder believes there is a discrepancy between the Discussion Memorandum and the content of the Confidential Meeting, the Bidder may request the Commission to change the Discussion Memorandum, which may be changed in the Commission's sole discretion.

(2) If it appears that the Discussion Proposal cannot be restructured or changed in a reasonable time in order to become responsive to the CNS or fulfill the CNS criteria, and that further discussion would not likely result in an acceptable Final Proposal, the response shall detail why the Commission believes that Bidder is non-responsive to the CNS and is unlikely to receive an award. In such case, the Commission shall not accept any further Discussion Proposals or negotiations.

(j) The CNS shall list date and time deadlines for each Discussion Proposal and requests for change of the Discussion Memorandum. The Commission may change these deadlines by notification to Bidders.

(k) The Commission shall not accept protests for Discussion Proposals. Only Bidders who have submitted a Final Proposal and who are not awarded a contract are eligible to file an protest pursuant to Section 2121.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

§ 2116. Discussion Proposals: Content.

(a) The purposes of a Discussion Proposal are to provide Bidder an opportunity for the Commission to identify any faulty or nonresponsive aspect of the Discussion Proposal and an opportunity for the parties to negotiate the contents of the Discussion Proposal.

(b) Each Discussion Proposal shall include, at a minimum, the following:

(1) If a Notice of Intention to Bid was not used, the Discussion Proposal shall identify how the Discussion Proposal will meet the requirements of the CNS;

(2) If a Notice of Intention to Bid was not used, the Discussion Proposal shall identify Bidder team that will participate in Confidential Meetings;

(3) If a Notice of Intention to Bid was not used, the Discussion Proposal shall include a confidentiality statement, the form of which shall be provided in the CNS, regarding use of confidential information during the CNS process;

(4) List of confidential documents, the form of which shall be provided in the CNS, with existing confidential documents, data or intellectual property, and anticipated confidential deliverables or work product;

(5) Costs and complete budget.

(c) The CNS shall state any other requirements of the Discussion Proposal. These requirements may include, without limitation, the following:

(1) Bidder's general qualifications;

(2) Bidder's technical qualifications;

(3) Financial measures such as net present value of proposed project;

(4) Capabilities of Bidder team as related to scope of work detailed in the CNS;

(5) Proof of financial ability to perform an awarded contract, including without limitation, financial statements, credit rating, liquidity ratios, equity ratio, equity rating and previous bankruptcy of Bidder, if any. If Bidder wants financial statements to be kept confidential, Bidder must make a request for confidentiality pursuant to Title 20, California Code of Regulations, section 2501 et. seq. (See section 2125 regarding confidentiality requests.)

(6) Proposal goals;

(7) Proposal technical objectives;

(8) Proposal economic objectives;

(9) Matching funds amount and source, and date when matching funds become available;

(10) Contingency plan for loss of matching funds;

(11) Evidence of compliance with state contract requirements such as Disabled Veterans Business Enterprise, or evidence of current progress toward meeting compliance with state contract requirements;

(12) Complete work statement;

(13) Schedule with milestones of project tasks from start to end;

(14) List of anticipated deliverables, including monthly progress reports and final report;

(15) Identification of preexisting intellectual property held by Bidder;

(16) Letters of support or reference;

(17) Projection of when royalty repayment would begin, if any;

(18) Commercialization plan for market adoption of technology.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

§ 2117. Final Proposal.

(a) All Bidders are required to submit a Final Proposal to be eligible to receive a contract award;

(b) The CNS shall list the date and time deadline for the Final Proposal. The Commission may change this deadline by notification to Bidders;

(c) The Final Proposal shall include, at a minimum, the following:

(1) All agreements and information noted in the Discussion Memorandum;

(2) Negotiated changes from any and all Discussion Proposals;

(3) Additional information as specified in the CNS;

(4) Evidence of compliance with state contract requirements, such as Disabled Veterans Business Enterprise (DVBE), unless the requirements for DVBE participation have been changed or exempted pursuant to Title 2, California Code of Regulations, section 1896.62(b).

(d) After the deadline for Final Proposals, no further Final Proposals will be accepted.

(e) After the deadline for Final Proposals, no further discussions with the Commission will be permitted, unless such discussion is initiated by the Commission.

(f) The following criteria may be used to score the Final Proposal:

(1) Proposal advances science or technology by providing benefits to California citizens;

(2) Proposal is not adequately addressed by competitive and regulated markets;

(3) Amount of Proposal costs;

(4) Level of public and private benefits compared to Proposal costs to be funded by the PIER program and match funds;

(5) Overall quality of Proposal;

(6) Overall quality of Bidder team;

(7) Likelihood of and timeframe for success of Proposal;

(8) Technical, market and financial risks of Proposal

(9) Whether Bidder incorporated negotiated changes from any and all Discussion Proposals.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

§ 2118. Evaluation and Selection Process.

(a) During the evaluations of Discussion Proposals and during the scoring and selection of Final Proposals, the Commission may:

(1) Require Bidders to answer specific questions orally or in writing;

(2) Require a demonstration of the Bidder's response to specific requirements in order to verify the claims made in the Proposal;

(3) Visit a Bidder's business or plant site in order to fully evaluate the Proposal.

(b) The Discussion Proposals will not receive evaluation scores. Final Proposals will be formally scored for contract award purposes;

(c) Final Proposals shall be scored according to the procedures and standards as specified in the CNS by a minimum of three scorers chosen by the Commission;

(d) Final selection will be among the Final Proposals that are responsive to the CNS requirements.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

§ 2119. Proposed Awards of Contracts.

After scoring final Proposals, a rank order for each Final Proposal will be assigned and recommendations made to the Research, Development & Demonstration (RD&D) Committee for proposed contract awards based on the highest scored Final Proposals. The RD&D Committee will make its proposed recommendation and post a notice of proposed awards. There is no guarantee that any of the Bidders will receive contract awards. After the proposed contracts have been signed by the Bidders, the Commission will consider final approval of each contract at a publicly noticed Commission business meeting. More than one contract may be awarded by the Commission at that time.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

§ 2120. Debriefing.

(a) The Commission may provide debriefing information and/or hold a debriefing conference after contract award at the request of any unsuccessful Bidder for the purpose of receiving specific information concerning the selection of Bidders.

(b) Debriefing is not the forum to challenge the CNS specifications or requirements, or challenge a contract award. See section 2121 for contract award protest procedures.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

§ 2121. Award Protest.

(a) Contracts shall be awarded only after a notice of proposed awards has been posted at the Commission for five working days;

(b) If, during the five working days after the notice of proposed awards, any Bidder who submitted a Final Proposal files a protest with the Commission and with the Department of General Services, Office of Legal Services (DGS-OLS), the contract(s) shall not be awarded until either the protest has been withdrawn or the protest has been resolved as described in this section. Protests shall be submitted to the following:

(1) CHIEF COUNSEL
DEPARTMENT OF GENERAL SERVICES, OFFICE OF LEGAL SERVICES
1325 J STREET, SUITE 1911
SACRAMENTO, CA 95814; AND

(2) CONTRACTS OFFICE, MS-18
CALIFORNIA ENERGY COMMISSION
1516 9TH STREET
SACRAMENTO, CA 95814

(c) Within five working days after filing the protest, the protesting Bidder shall file with DGS-OLS, and with the Commission, a full and complete written statement specifying the grounds for the protest;

(d) The grounds for filing a protest shall be limited to allegations that the Commission failed to properly follow the evaluation process detailed in the CNS, or in section 2118 or section 2124 of these regulations;

(e) When a protest is filed, DGS-OLS shall notify those Bidders who were awarded contracts, and give them an opportunity to rebut the protest. Written rebuttal arguments shall be submitted to DGS-OLS and the Commission within 10 days from the date of the notification;

(f) DGS-OLS shall have the discretion whether to consider the protest and rebuttals based on written submissions alone, or written submissions and oral argument;

(g) DGS-OLS shall make findings and a recommended decision within:

(1) 30 days after oral arguments, if any; or

(2) 30 days after the due date for rebuttal arguments if there are no oral arguments;

(h) The Commission shall either approve or disapprove the recommended finding at the next possible publicly noticed Commission business meeting.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

§ 2122. Modification or Withdrawal of Submittals.

Bidders may withdraw or modify a Notice of Intention to Bid or Proposal at any time before the date and time deadline specified in the CNS, by submitting a written request to withdraw or modify to the Commission.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

§ 2123. Right to Modify CNS, Cancel CNS or Reject Proposals.

The Commission reserves the right to modify any CNS as needed or to cancel any CNS. The Commission also reserves the right to reject any or all Proposals.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

§ 2124. Grounds to Reject Proposals.

(a) The Commission shall reject any Proposal (Discussion Proposal or Final Proposal) upon the occurrence of any of the following, without limitation.

(1) Any Proposal is received past the scheduled date and time deadline; or

(2) Any Proposal is labeled as confidential in its entirety; or

(3) Any Proposal contains false or misleading information, if in the opinion of the Commission, such information was submitted intentionally to mislead the Commission in its evaluation of the Proposal.

(b) The Commission shall also reject a Final Proposal upon the occurrence of any of the following, without limitation

(1) A Final Proposal is not responsive to Disabled Veteran Business Enterprise program requirements or any other state contracting requirement; or

(2) A Final Proposal does not contain a properly executed Certification Clauses Package; or

(3) A Final Proposal is not signed on the application form included in the CNS; or

(4) A Final Proposal does not meet the eligibility, completeness and feasibility criteria specified in the CNS; or

(5) A Final Proposal does not meet the minimum passing score if a minimum score is required in the CNS; or

(6) A Final Proposal contains a conflict of interest pursuant to Public Contract Code section 10410, 10411 or 10365.5.

(c) The Commission may reject any Proposal (Discussion Proposal or Final Proposal) upon the occurrence of any of the following, without limitation:

(1) Any Proposal contains false or misleading information, if in the opinion of the Commission, such information was not submitted intentionally to mislead the Commission in its evaluation of the Proposal; or

(2) Any Proposal does not comply with or contains caveats that conflict with the CNS; or

(3) Any Proposal contains multiple projects within a single Proposal; or

(4) Any Proposal is not prepared in the required format described in the CNS.

(d) If a Discussion Proposal is rejected for any of the grounds listed in subdivision (a) or (c), the Bidder shall be notified that the Discussion Proposal is not responsive to the CNS and Bidder is unlikely to receive an award. The decision regarding a Discussion Proposal is not immediately reviewable.

(e) If a Final Proposal is rejected for any of the grounds listed in subdivision (a), (b), or (c), the Bidder shall be notified that it will not receive a contract award. If Bidders wish to dispute this decision, Bidders may file a protest pursuant to Section 2121.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

§ 2125. Confidential Information.

(a) The Commission shall not accept or retain any Proposal labeled as confidential in its entirety;

(b) All Proposals and materials submitted with Proposals shall be kept confidential until the notice of proposed contract awards is posted;

(c) All Proposals and materials submitted with Proposals become a public record after the notice of proposed contract awards is posted;

(d) If a Bidder believes certain confidential or proprietary information is necessary for the evaluation of a Proposal, the Bidder may submit the information in a separate volume marked confidential with a request to keep such information confidential pursuant to Title 20, California Code of Regulations, section 2501-2505.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

§ 2126. Correction of Errors in CNS.

If any CNS contains an error known to a Bidder, or an error that reasonably should have been known, the Bidder submits Proposals at its own risk. If a Bidder discovers any errors, conflicts or omissions in any CNS, the Bidder shall immediately notify the Commission in writing and request modification or clarification of the CNS.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

§ 2127. Contract Terms and Conditions.

Standard contract terms and conditions shall be included with the CNS. No agreement between the Commission and a successful Bidder is in effect until a contract has been signed by both parties and approved by the Department of General Services, Office of Legal Services.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

§ 2128. Bidder's Proposal Preparation Costs.

The cost of developing and submitting a Notice of Intention to Bid or Proposal is the Bidders' responsibility and cannot be charged to the Commission or the state of California.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

§ 2129. Disposition of Proposals.

The Commission shall exercise control over the circulation of all Proposals submitted pursuant to the CNS. All Proposals and materials submitted with Proposals shall become the property of the state of California. After posting of the notice of proposed contract awards, all Proposals, materials submitted with Proposals, evaluation sheets and scoring sheets shall become public records, except confidential materials, which are handled pursuant to Title 20 California Code of Regulations, sections 2501-2505.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

§ 2130. Immaterial Deviations in Proposal.

The Commission may waive any immaterial defect or deviation in any Proposal. Such waiver shall not excuse a successful Bidder from full compliance.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

§ 2131. Audits.

Contracts awarded under any CNS will be subject to audit by the Bureau of State Audits and the Commission or its representative at any time during the duration of the contract, but no more frequently than once every twelve months. In addition, financial information submitted prior to contract award is subject to audit.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

§ 2132. Joint Bids.

Bidders may submit a joint proposal, if the Commission indicates in the CNS that such proposals will be permitted. In such case, the contract may be awarded as one indivisible, multi-party contract.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

§ 2133. Bidder Responsibility.

Prior to award of the contract, the Commission must be assured that the Bidder selected has all of the resources to successfully perform under the contract. This includes without limitation, personnel in the numbers and with the skills required, equipment of appropriate type and in sufficient quantity, and financial resources sufficient to complete performance under the contract and experience in similar endeavors.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

§ 2134. Additional Procedures.

Additional procedures for administering these regulations and conducting a CNS may be identified in each CNS and/or a Commission instruction manual.

Note: Authority cited: Sections 25218(e) and 25620.2(c), Public Resources Code. Reference: Section 25620.5, Public Resources Code.

Chapter 6. Environmental Protection

Article 1. Implementation of the California Environmental Quality Act of 1970

§ 2300. CEQA Guidelines.

Except for activities undertaken in connection with the commission's certified regulatory program for power plant site certification identified in Title 14, section 15251(j), the State CEQA Guidelines codified in Title 14, section 15000 et seq., of the California Code of Regulations are the procedures governing implementation of the California Environmental Quality Act.

Note: Authority cited: Sections 21082, 25213 and 25218(e), Public Resources Code. Reference: Sections 21080.5, 21082, 25213, 25519(c) and 25541.5, Public Resources Code.

§ 2300.1. Fees for EIR or Negative Declaration Expenses. [Renumbered from 2308]

(a) The executive director shall charge and collect a reasonable fee from any person proposing a project subject to CEQA to cover the estimated actual cost of preparing a Negative Declaration or an EIR. The deposit shall not be in excess of three percent (3%) of the estimated capital cost of the proposed project.

(b) The Commission staff shall separately account for the deposit collected and the charges thereto. The status of the account shall be provided to the project proponent at regular intervals established by mutual agreement. The executive director shall request additional deposits if the initial deposit has been exhausted. A final accounting shall be rendered by the Commission staff after the final EIR or Negative Declaration has been certified or adopted.

(c) If in the final accounting the deposits exceed the actual costs incurred by the Commission, the excess shall be refunded. If the actual costs exceed the amount of the deposits, the project proponent shall be billed for the difference.

(d) The executive director may adjust or waive deposits for minor projects. For projects with an estimated capital cost of more than $1,000,000, the executive director shall permit payment of the deposit in increments.

(e) The executive director should collect the deposit prior to the preparation of environmental documents and no final EIRs or Negative Declarations shall be certified until the project proponent has reimbursed the Commission for the costs of preparing and processing them.

(f) Where a staged EIR is prepared the executive director shall collect a deposit sufficient to cover the expenses of each stage of the EIR before each stage is commenced. Such deposits shall be accounted for in the manner described in subsection (a) of this section, and a final accounting shall be rendered upon completion of each stage of the EIR at the request of the project proponent.

Note: Authority cited: Sections 21082 and 25213, Public Resources Code. Reference: Section 21089, Public Resources Code.

~~§ 2301. Purpose.~~

~~These regulations specify the objectives, criteria, and procedures to be followed by the Commission in implementing the California Environmental Quality Act of 1970. (Public Resources Code Sections 21000 et seq.) ("CEQA"). These regulations should be read in conjunction with the State EIR Guidelines, as they are supplemental to and not repetitive of the Guidelines.~~

~~Note: Authority cited: Sections 21082 and 25213, Public Resources Code. Reference: Section 21082, Public Resources Code.~~

~~§ 2302. Definitions.~~

~~Terms issued in these regulations, unless otherwise defined, shall have the meaning ascribed to them in the State EIR Guidelines. In addition, the following definitions are used:~~

~~(a) Environmental Documents. "Environmental documents" mean draft and final Environmental Impacts Reports (EIRs), Initial Studies, Draft and Final Negative Declarations, Notices of Preparation, Notices of Determination, Notices of Exemption, Statements of Findings and Overriding Considerations, and the environmental manual.~~

~~(b) Environmental Manual. "Environmental manual" means a Commission-approved manual which details internal procedures for the preparation and review of environmental documents.~~

~~(c) State EIR Guidelines. "State EIR Guidelines" means the Guidelines for Implementation of the California Environmental Quality Act of 1970 by the Secretary for Resources (Div. 6, Title 14, Cal. Adm. Code, Sections 15000, et seq. with Appendices).~~

~~Note: Authority cited: Sections 21082 and 25213, Public Resources Code. Reference: Section 21082, Public Resources Code.~~

~~§ 2303. General Responsibilities.~~

~~(a) Implementation of CEQA. Details for the implementation of the various environmental review procedures are set forth in the environmental manual.~~

~~(b) Contracted Documents. Where the Commission contracts with another person or agency to prepare environmental documents, the Commission retains responsibility for the adequacy, content, and objectivity of the environmental document.~~

~~(c) Availability of Environmental Documents. All environmental documents prepared by the Commission shall be available for public inspection upon request during normal Commission working hours at 1516 Ninth Street, Sacramento, other Commission field offices, or may be requested through the publications office. Copies shall be made available to the general public who may be charged an amount not in excess of the actual cost of reproducing such copies.~~

~~(d) Retention and Availability of Environmental Comments. Comments received through the consultation process shall be retained in the files of the Commission for one year from the date of final action on the document and shall be available for public inspection at an address provided in the final EIR. Comments which may be received independently of the review of the draft EIR shall also be considered and kept on file.~~

~~Note: Authority cited: Sections 21082 and 25213, Public Resources Code. Reference: Sections 21082, 21082.1, 21100 and 21105, Public Resources Code; and 14 California Administration Code Section 15166.~~

~~§ 2304. Activities Not Requiring an Initial Study.~~

~~(a) Whenever the executive director and general counsel determine, based upon the review by the Commission staff, that a formal Initial Study is not required pursuant to this section, this determination and the reasons therefore shall be presented to the Commission for its concurrence. If the Commission concurs, no formal Initial Study, Negative Declaration, or EIR is required.~~

~~(b) Whenever an activity determined exempt from a formal Initial Study is approved by the Commission, the Commission shall file a Notice of Exemption with the Secretary for Resources.~~

~~Note: Authority cited: Sections 21082 and 25213, Public Resources Code. Reference: Sections 21080.1 and 21108(b), Public Resources Code.~~

~~§ 2305. Initial Study.~~

~~Where an Initial Study is necessary, it will be available for public access and inspection either in the Negative Declaration or incorporated into a draft EIR, depending upon its findings on significant effect.~~

~~Note: Authority cited: Sections 21082 and 25213, Public Resources Code. Reference: Section 21105, Public Resources Code.~~

~~§ 2306. Negative Declaration.~~

~~Where a Negative Declaration is prepared, its completion and availability shall be announced in one or more newspapers of general circulation chosen on the basis of providing the most effective public notice.~~

~~Note: Authority cited: Sections 21082 and 25213, Public Resources Code. Reference: Section 21092, Public Resources Code.~~

~~§ 2307. EIR Preparation and Procedure.~~

~~(a) Hearings. The decision regarding the need for public hearings on a draft EIR shall be based upon the amount of public interest in the environmental impacts of the proposed activity and any other considerations which the Commission finds are compelling. It is the policy of the Commission that reasonable doubts concerning the appropriateness of public hearings shall be resolved in favor of holding such hearings. A decision not to hold such hearings shall be in writing including the reasons supporting the decision and shall be included in the Commission's record of decision on the activity.~~

~~(b) Duration of Comment Period. The executive director, at the time of certifying a draft EIR for public review, shall specify the length of the public review period after considering the complexities of the proposed project and the anticipated needs of the public. The executive director shall provide a minimum of 45 calendar days between the release of the draft EIR and the final receipt of comments. Any person may request that the executive director grant an extension of the comment and review period prior to termination of the original specified time period. Upon a showing of reasonable need, the executive director may grant such extensions. Any request to extend the comment and review period beyond 90 days or a request submitted after expiration of the original review period shall document unusual or extenuating circumstances; if such conditions are found to exist, such requests may be granted.~~

~~(c) Forwarding of Final EIR Copies. To the extent feasible, copies of the final EIR shall be forwarded to all persons, agencies, or organizations requesting such copies.~~

~~Note: Authority cited: Sections 21082 and 25213, Public Resources Code. Reference: Sections 21100 and 21105, Public Resources Code; and 14 California Administration Code Sections 15160, 15164 and 15165.~~

~~§ 2308. Fees for EIR or Negative Declaration Expenses.~~ [Renumbered to 2300.1]

~~§ 2309. Review of Environmental Documents of Other Lead Agencies.~~

~~When the Commission is a Responsible Agency for a project, and approves or determines to carry out a project for which an EIR or Negative Declaration has been prepared by the Lead Agency, it shall file a Notice of Determination.~~

~~(b) The executive director shall approve all comments to environmental documents prepared by the Commission staff pursuant to this section before such comments are submitted to the State Clearinghouse or the Lead Agency.~~

~~Note: Authority cited: Sections 21082 and 25213, Public Resources Code. Reference: Sections 21108(a) and 25404, Public Resources Code; and 14 California Administration Code Section 15085.5(i).~~

Article 2. Designation of Transmission Corridor Zones

§ 2320. Scope and Objectives of Designation Process.

(a) The provisions of this article shall apply to the consideration of a motion by the commission or an application by a person to designate a transmission corridor zone under Public Resources Code section 25331.

(b) The main objectives of the designation process are as follows:

(1) To identify appropriate corridors for transmission planning, taking into consideration the state's principles of encouraging the use of existing rights-of-way, the expansion of existing rights-of-way, and the creation of new rights-of-way in that order;

(2) To identify appropriate corridors for transmission planning, consistent with the state's needs and objectives as set forth in the most recently adopted strategic plan under Section 25324 of the Public Resources Code applicable at the time an application is filed or a motion made by the commission;

(3) To prepare an environmental assessment of each proposed corridor, taking into account a reasonable range of alternatives and feasible ways to mitigate or avoid foreseeable significant environmental impacts, such that the environmental assessment informs and makes more efficient the licensing process that later considers whether to permit a transmission project within a designated corridor;

(4) To coordinate the state's designation of corridors with existing or proposed federal corridors identified under Section 368 of the Federal Energy Policy Act of 2005 (Pub.L. No. 109-58 (Aug. 8, 2005) 119 Stat. 594.) or contained within adopted federal land use plans so that the state and federal designations result in continuous corridors to the extent practicable;

(5) To work with local governments through whose jurisdictions a transmission corridor is proposed such that each designation takes into account local concerns, recommendations, and adopted land use designations and results in the cooperation of local governments that consider designated corridors when taking actions to amend general and specific land use plans; and

(6) To provide a forum for public participation, public hearings, and the determination of factual and other issues based on the evidence of record in the proceeding.

(c) For purposes of this article, applicants who plan to construct a high-voltage electric transmission line include persons who plan to upgrade an existing electric transmission line that is under the operational control of the California Independent System Operator or would result in an operating voltage of 200 kV or more.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Sections 25330—25341, Public Resources Code.

§ 2321. Information Requirements

An application to designate a transmission corridor zone shall include an environmental assessment of all reasonably foreseeable impacts that would result from the designation of the proposed corridor for the construction of at least one future high-voltage electric transmission line. The environmental assessment shall contain all the information specified in Appendix A of this article.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Sections 21003.1, 21080.1, 25331, 25332, Public Resources Code.

§ 2322. Format and Number of Copies.

Paper copies of applications and any other documents attached thereto shall conform to the requirements of Sections 1208.1 and 1706. An application shall be filed in electronic format in conformance with sections 1208 and 1208.1.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25331(b), Public Resources Code.

§ 2323. Review and Acceptance of Application.

(a) Upon receipt of an application for designation under this Article, the staff shall review the information contained in the application to determine if it provides all the information specified in section 2321.

(b) No later than 30 days after receipt of an application, the executive director, based on the staff's review, shall submit his or her recommendation to the commission as to whether the application contains the information specified in section 2321 and is, therefore, complete.

(c) No later than 45 days after receipt of an application, the commission shall act upon the executive director's recommendation as to whether to accept the application as complete, based on the application containing all the information specified in section 2321. If the commission determines that the application is complete, the application shall be accepted as of that date and the proceeding for considering whether to designate the proposed corridor shall begin.

(d) If the commission determines that the application is incomplete, it shall specify in writing the deficiencies based on section 2321 and the application shall not be accepted.

(e) After the commission has acted on the executive director's recommendation, even if the application is determined to be incomplete, the commission shall consider whether to assign a committee at that time to preside over the proceeding on the application for designation of a transmission corridor zone. The commission shall otherwise assign a committee at the time it determines the application to be complete. If a committee is assigned and the application is incomplete, the executive director, based on the staff's recommendation, shall notify the assigned committee, rather than the commission, when the applicant has submitted all required information based on section 2321 and the commission's list of deficiencies. The committee, rather than the commission, shall then be responsible for determining whether subsequent information provided by the applicant completes the application in the manner specified by the commission.

(f) The applicant may file additional information to complete the application by curing the deficiencies that the commission has specified in writing. No later than 30 days after receipt of all the data that is filed to complete the application, the commission or a committee, if one has been assigned, shall determine whether the application is complete based on section 2321. If determined to be complete, the application shall be accepted as of the date the commission or committee so determines and the proceeding for considering whether to designate the proposed corridor shall begin.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25331, Public Resources Code.

§ 2324. Public Notification.

(a) As soon as practicable and, in any event, no later than ten days after an application is determined to be complete or the commission on its own motion proposes to designate a corridor, the staff shall do the following:

(1) arrange for the publication of a summary of the application and a brief description of the commission's review process in a newspaper of general circulation in each county where a transmission corridor zone and any alternatives are proposed to be located;

(2) notify all property owners who are within or adjacent to a proposed transmission corridor zone;

(3) notify and transmit a copy of the application to the Electricity Oversight Board, the California Public Utilities Commission, the California Independent System Operator, the Native American Heritage Commission, and all California Native American tribes, City Managers, County Chief Executive Officers, Planning Commission Chairpersons, representatives of state and federal agencies, transmission load-serving entities, and transmission owning local publicly owned electric utilities, as defined in Section 9604(d) of the Public Utilities Code, having a jurisdictional interest in the proposed transmission corridor zone;

(4) publish the application on the commission internet web site; and

(5) notify members of the public, including landowners notified under subsection (2), that the application is available on the commission's web site.

(b) Notification under subsection (a) shall include a summary of the application, a brief description of the commission's review process, including the role of the assigned committee, and the objectives of the strategic plan with which the proposed transmission corridor must be consistent.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25334, Public Resources Code.

§ 2325. Coordination with Interested Agencies, Intervention, and Public Participation.

(a) The notice to governmental entities, including California Native American tribes, referred to in subsection (b) of section 2324 shall also serve to request information about their land use plans, existing land uses, and other matters in which they have expertise or interest with respect to the proposed transmission corridor or an alternative corridor. All requested

information shall be provided within 30 days of the date the notice is sent, unless a later time is requested by a governmental entity and agreed to by the staff.

(b) Upon receipt of information in response to the request under subsection (a), the staff shall use the information to confer as needed throughout the proceeding with interested governmental agencies and tribal governments to discuss their land use plans, areas of expertise, concerns, and recommendations with respect to the proposed transmission corridor or an alternative.

(c) Any person may file a petition to intervene under section 1211.7 in a designation proceeding, but must file the petition no later than 15 days after the staff issues the draft environmental report. The petitioner shall also serve the petition upon the applicant. The presiding member may grant a petition to intervene filed after the deadline only upon a showing of good cause by the petitioner. A person whose petition is granted shall have all the rights and duties of a party under these regulations. Any person whose petition to intervene has been denied by the presiding member may appeal the decision in the manner provided by section 1211.7(e). Any intervenor may withdraw from a proceeding by filing a notice to such effect with the Docket Unit.

(d) A petition to intervene, however, shall not be necessary for a person to participate informally in any or all aspects of a designation proceeding. Any person may participate by requesting to be notified of the proceeding's public events, attending public workshops, hearings, and other publicly noticed meetings, and offering oral and written comments on the proposed corridor, environmental assessment, and other matters that are the subject of public review.

(e) The rules governing ex parte communications under section 1216 shall apply to proceedings conducted under this article.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25334, Public Resources Code.

§ 2326. Reimbursement

(a) An applicant who files an application for designation of a transmission corridor zone shall submit with the application a fee that the executive director estimates will reimburse the commission for all costs associated with reviewing the application. The commission staff shall separately account for the deposit collected and the charges against it. The status of the account shall be provided to the applicant at regular intervals agreed to by the applicant. The executive director shall request additional deposits if the initial deposit has been exhausted. A final accounting shall be provided by the commission staff after the commission's final decision on the application. If the final accounting shows that the deposits exceed the actual costs incurred by the commission, the difference shall be refunded to the applicant. If the actual costs exceed the deposits, the applicant shall be billed for the difference.

(b) Upon receiving the commission's request for review of a proposed transmission corridor zone, a city or county may request a fee, except as provided under subsection (d), to cover the actual and added costs of review and the commission shall pay this amount to the city or county, provided the city or county follows the procedures set forth in section 1715.

(c) Alternatively, an applicant may establish an account directly with a city or county seeking reimbursement and, through the account, reimburse the city or county directly for its actual and added costs of reviewing the applicant's proposed transmission corridor zone. In any case, an applicant shall be allowed to review any invoice submitted by a city or county for reimbursement.

(d) A city or county participating as a formal intervenor to a designation proceeding shall not be eligible for reimbursement under this section.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Sections 21089, 25334(d) and (e), and 25538, Public Resources Code.

§ 2327. Requests for Information.

(a) With respect to an application for designation or a motion by the commission to designate a transmission corridor zone, any party, i.e., staff, applicant, and intervenors, may request from another party such information as is reasonably available to the party being requested and is relevant to the proceeding or reasonably necessary to complete an environmental report in accordance with the California Environmental Quality Act and assess the need for the proposed corridor and its conformance with the strategic plan. Requests for information shall be based on the level of information that can reasonably be expected to be available at the relatively early stage of designating a corridor for planning purposes as compared to the later stage of permitting a specific transmission project. Section 1716 shall govern the exchange of requests for information and responses, objections to a request, and petitions for an order to compel a response. All requests for information shall be submitted no later than 180 days from the date the application is determined to be complete, unless the committee allows a later date for good cause shown.

(b) In formulating its requests for information from the applicant or other sources, the staff shall confer with interested agencies, the Native American Heritage Commission, and California Native American tribal governments regarding the information they believe the applicant or a relevant source should provide for the staff's environmental assessment of the proposed designation.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25334, Public Resources Code.

§ 2328. Informational Hearing and Scoping Meeting.

(a) Within 45 days of the commission filing a motion or determining an application is complete, an assigned committee shall conduct one or more informational hearings in the county or counties in which the proposed transmission corridor would be located.

(b) The assigned committee shall arrange for public notice of the informational hearings to be published no later than 10 days in advance of the initial hearing. The notice shall request all interested governmental entities and members of the public, particularly owners of property within or adjacent to the proposed transmission corridor zone, to provide comments on the suitability of the proposed transmission corridor zone with respect to environmental, public health and safety, land use, economic, and transmission-system impacts or other relevant factors on which they may have expertise.

(c) The purpose of the informational hearings shall be to do all of the following:

(1) In a presentation by the applicant, or by the staff in a case initiated by the commission's motion, provide information and answer questions to explain the transmission corridor zone that is being proposed for designation;

(2) Explain the commission's designation process, the staff's role in preparing an environmental report, the opportunities for public and agency participation, and any other matter that informs the public about the designation process and its purpose.

(3) Explain the state's needs and long-term planning objectives in the applicable Strategic Plan and the Plan's relevance to the transmission corridor zone being proposed for designation;

(4) Serve as a scoping meeting for the environmental review of the proposed transmission corridor zone by receiving comments on its suitability with respect to environmental, public health and safety, land use, economic, and transmission-system impacts and other relevant factors on which a governmental entity or an interested person may have expertise; and

(5) Solicit factual information, recommendations, and suggestions on reasonable alternatives that could avoid or mitigate potentially significant environmental impacts associated with the proposed transmission corridor. An alternative shall be considered reasonable if it meets one or more of the state's needs and objectives that the proposed corridor for designation proposes to meet in accordance with the applicable Strategic Plan, is feasible as that term is defined in section 1201(i), and offers a way to mitigate or avoid one or more potentially significant environmental impacts associated with the proposed transmission corridor.

(d) Within 15 days of the informational hearing, the assigned committee shall issue an order regarding the type and scope of environmental review to be conducted, the estimated schedule of events in the remainder of the proceeding, and any other matter relevant to the proceeding the committee sees fit to include.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Sections 21080.1, 21080.3, 21104 and 25335, Public Resources Code.

§ 2329. Preparation of Environmental Report, Need Assessment, and Staff's Role.

(a) The staff shall be responsible for independently preparing a draft and final environmental report on the proposed transmission corridor zone, taking into account the applicant's environmental assessment in the application, all relevant information received from interested government entities, and written comments from members of the public regarding potential impacts, feasible mitigation, and reasonable alternatives.

(b) The staff shall also be responsible for independently assessing the need for the proposed transmission corridor and whether it conforms with the latest adopted strategic plan.

(c) Issues that may arise related to the final environmental report and the assessment of need and conformance with the strategic plan shall be the subject of one or more hearings under section 2332.

(d) The staff shall hold one or more public workshops to try to resolve issues and to solicit information from governmental entities, property owners within or adjacent to the proposed corridor, and other interested members of the public.

(e) The staff may independently prepare an initial report on the proposed corridor to identify potential issues for the informational hearings under section 2328 and as a way to help focus the draft environmental report.

Note: Authority cited: Section 25218(e), Public Resources Code; and section 15025, Title 14, California Code of Regulations. Reference: Sections 21080.1, 21082.1, 21100, 25332, 25336 and 25337, Public Resources Code.

§ 2330. Publication of the Environmental Report, Need Assessment, and Public Review.

(a) Within 120 days of the final informational hearing under section 2328, the staff, in consultation with interested government entities and in consideration of all comments and information received at the informational hearings and workshops, shall publish a draft environmental report on the proposed designation and an assessment of need for the proposed corridor and its conformance with the latest adopted strategic plan. The staff shall post the draft report and assessment on the commission's website, provide a copy of the draft report to the state Clearinghouse as appropriate, and notify all interested government entities and the public of the availability of the environmental report on the commission's website.

(b) There shall be a public comment period of at least 45 days from the posting of the draft environmental report on the commission's website.

(c) Within 30 days after the conclusion of the public comment period for the draft environmental report, the staff shall independently publish a final environmental report, including responses to written comments received on the draft report, and its final assessment of need for the proposed corridor and its conformance with the latest adopted strategic plan.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Sections 21082.1, 21091, 25332 and 25337, Public Resources Code; and Sections 15084, 15086, 15087, 15088 and 15089, Title 14, California Code of Regulations

§ 2331. Prehearing Conference and Hearing Order.

(a) Within 35 days, but no sooner than 15 days, after the issuance of the final environmental report, the assigned committee shall hold a prehearing conference to determine the issues to be considered in one or more hearings and the dates of the hearings.

(b) The assigned committee shall arrange for public notice of the prehearing conference to be published no later than 14 days in advance of the prehearing conference. The notice shall request all parties to prepare a prehearing conference statement identifying the issues they believe should be the subject of a hearing and any other matter the committee deems reasonable to request.

(c) Within 15 days of the prehearing conference, the assigned committee shall issue a hearing order setting forth the issues to be heard at one or more hearings, including issues, if any, regarding reasonable alternatives to the proposed transmission corridor zone, the need for

the proposed corridor, and the extent to which the proposed corridor conforms with the applicable strategic plan, the date(s) and location(s) of the hearing(s), the filing date for written testimony, other submittals, and public comments, and any other matter that the assigned committee has the authority to address or regulate under section 1203.

(d) The issue of conformity with the strategic plan shall include a demonstration based on substantial evidence of the need for the proposed corridor. The basic issue of need for a corridor shall first be considered in a proceeding on the strategic plan under Section 25324 of the Public Resources Code.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25336, Public Resources Code.

§ 2332. Hearings and Record.

(a) The assigned committee shall conduct hearings to receive testimony as defined in section 1201, public comments, and other information on issues that the prehearing conference order identifies.

(b) The hearings shall be conducted in accordance with section 1212 regarding rules of evidence and the cross examination of witnesses.

(c) All testimony, cross examination of witnesses, information, and comments received at a hearing shall become the record of the proceeding.

(d) The record shall be the basis upon which to make findings and conclusions in accordance with Public Resources Code section 25337 and as specified in section 2334.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Sections 21082.2, 25336 and 25337, Public Resources Code.

§ 2333. Proposed Decision.

(a) Within 60 days of the conclusion of hearings under Section 2332, the assigned committee shall issue a proposed decision based on consideration of the final environmental report, together with the entire hearing record in the proceeding. The proposed decision shall contain the committee's responses to comments received at the hearing(s) held under Section 2332.

(b) The proposed decision shall be subject to no less than a 20-day public review period.

(c) The assigned committee may hold a hearing to receive comments and recommendations on the proposed decision in advance of the adoption hearing before the full commission on the proposed decision.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Sections 21081, 21081.5 and 25337, Public Resources Code.

§ 2334. Findings and Conclusions.

The proposed decision shall contain a recommendation on whether to designate the proposed transmission corridor zone and shall include proposed findings and conclusions on each of the following:

(a) whether the proposed transmission corridor zone conforms with the applicable strategic plan adopted pursuant to Section 25324 of the Public Resources Code;

(b) whether the proposed corridor zone is consistent with land uses within and adjacent to the corridor and with applicable land use plans adopted by local, regional, state, or federal governments;

(c) whether there exists within or adjacent to the proposed transmission corridor zone any notable areas of sensitivity such as local, state, or regional parks, wilderness, scenic, or natural reserves, areas for wildlife protection, estuaries, and areas for recreation or historic preservation;

(d) the extent to which the proposed designation and possibility of one or more transmission-line projects being built within the designated corridor would cause any reasonably foreseeable significant adverse impact on the environment, public health and safety, land use, the state's economic interest, the state's electric transmission system, or any other relevant matter;

(e) whether there are feasible means of mitigating or avoiding any of the significant adverse impacts identified with the proposed designation;

(f) any changes or modifications to the proposal that the commission should require;

(g) whether there are feasible alternatives that are preferable to the proposed corridor; and

(h) any other matter that the committee considers relevant to the commission's decision on whether to designate the proposed transmission corridor zone.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Sections 21081, 21081.5, and 25337, Public Resources Code; and Sections 15091 and 15092, Title 14, California Code of Regulations.

§ 2335. Final Decision and Hearing.

(a) Before adopting a final decision, the commission shall adopt or certify as appropriate the final environmental report by finding each of the following:

(1) The final environmental report has been completed in compliance with the California Environmental Quality Act.

(2) The commission has reviewed and considered the information in the final environmental report before approving the designation.

(3) The final environmental report reflects the independent judgment of the commission.

(b) The commission shall hold a final hearing to receive final comments and recommendations on the proposed decision and accompanying documents. At the conclusion of the hearing, the commission shall adopt a final written decision that conforms with Section 25337 of the Public Resources Code and contains the findings and conclusions specified in section 2334.

(c) The commission may not designate a proposed corridor with one or more significant adverse environmental impacts unless it finds both of the following:

(1) There are feasible means of mitigating or avoiding the significant adverse environmental impacts and those means have been required or incorporated in the proposed designation.

(2) With respect to matters not within the commission's authority, but within the authority of another agency, that changes or alterations required to mitigate such impacts have been or can and should be adopted by such other agency.

(d) If the commission cannot make the findings in subsection (c), then it may not designate a transmission corridor zone unless it makes the following two findings:

(1) Specific economic, social, or other considerations make infeasible the mitigation measures or alternatives identified in the environmental impact report.

(2) The benefits of the designation outweigh the unavoidable significant adverse environmental impacts associated with the designation of the proposed transmission corridor zone.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Sections 21081, 21092 and 25337, Public Resources Code; and Sections 15090, 15091, 15092 and 15093, Title 14, California Code of Regulations.

§ 2336. Notification of a Designated Corridor.

As soon as practicable after the commission designates a transmission corridor zone, it shall post a copy of its decision on its Internet Web site, send a copy of its decision, including a description of the transmission corridor zone, to the City Manager, County Chief Executive Officer, and Planning Commission Chairperson of each affected city and county and to representatives of each affected state and federal agency, and notify property owners within or adjacent to the corridor of the availability of the decision on the commission's Internet Web site.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25338, Public Resources Code.

§ 2337. Use of a Designated Corridor.

Any person who proposes to construct a high voltage transmission line within a designated corridor shall include the environmental assessment for the designated corridor and the commission's final decision on the corridor as part of the application to the agency that has permitting authority over the transmission-line project.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Sections 15006, 15153, 15167, and 15168, Title 14, California Code of Regulations.

§ 2338. Catalogue of Environmental Reports for Designated Corridors.

The staff shall compile and maintain in electronic format the commission's environmental reports on all transmission corridors designated under this article and shall make available upon request the relevant copy for inclusion in an application to construct a high-voltage transmission line within a designated corridor.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25339, Public Resources Code.

§ 2339. Review of Designated Corridors.

Upon request or upon its own initiative, the commission may review and revise as necessary its designated transmission corridor zones in accordance with the procedural requirements of this article, but shall review not less than once every 10 years. Designated corridors shall be identified in each strategic plan prepared under Section 25324 of the Public Resources Code.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25339, Public Resources Code.

§ 2340. Application of CEQA

Nothing in this article shall preclude the use of an exemption under the California Environmental Quality Act or the preparation of a negative declaration or mitigated negative declaration in accordance with that Act where the facts pertaining to a proposed transmission corridor zone do not support a fair argument otherwise. Every application shall nevertheless be subject to the same procedural requirements for an informational hearing, prehearing conference, one or more evidentiary hearings as needed, a proposed decision, and a final decision.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Sections 21080.1 and 25332, Public Resources Code.

Appendix A

Information Requirements for a Corridor Designation Application[1]

(a) Executive Summary

In a section entitled, "Executive Summary," the application shall contain:

(1) a general description of the proposed transmission corridor, its location, the region in which it is proposed to be located, the immediate vicinity, and the transmission facilities anticipated to be within the corridor;

[1] The requirements in this Appendix apply also to a motion by the Energy Commission to designate a transmission corridor zone.

(2) a summary of the need for the proposed corridor based on the state's needs and objectives as set forth in the latest adopted strategic plan under Section 25324 of the Public Resources Code and any other relevant information provided in the application;

(3) a summary of reasonably foreseeable impacts to the environment or to public health and safety associated with the proposed designation of the corridor for a high-voltage electric transmission line; and

(4) a summary of mitigation measures proposed to avoid or minimize any such impacts to the environment or to public health and safety.

(b) Project Description

In a section entitled, "Project Description," the application shall contain:

(1) a detailed description of the proposed transmission corridor, identifying the corridor's geographic location, direction, length and width;

(2) a detailed description of the setting of the proposed transmission corridor zone;

(3) maps* depicting the region, the vicinity, the proposed transmission corridor, and its immediate surroundings at a scale of 1:24,000 (or another appropriate map scale agreed to by staff), and showing developed areas, including demographic data and location(s) of low-income and minority populations in the vicinity of the proposed corridor, major infrastructure, parks, recreational areas, scenic areas, existing transmission lines within one mile of the center line of the proposed corridor; and any other matters the applicant may wish to include;

(4) full-page color reproductions of photographs showing the features and characteristics of the area within and alongside the proposed corridor;

(5) the center line of the proposed transmission corridor identified by mileposts at appropriate distances and the beginning and ending longitude and latitude of each segment between the mileposts in the proposed corridor; and,

(6) in an appendix to the application, a list of current assessor's parcel numbers and owners' names and addresses for all parcels within and out to 500 feet of the outer boundaries of the proposed transmission corridor.

All maps depicting the proposed transmission corridor in the application shall show the proposed corridor's center line and outer boundaries and shall conform with the format requirements for such documents under Sections 1208.1 and 1706.

(c) Conformity with Strategic Plan and Need

In a section entitled, "Conformity with Strategic Plan and Need for Corridor," the application shall contain:

(1) the planning timeframe for the transmission project(s) anticipated to be within the corridor zone proposed for designation;

(2) the objective(s) of locating one or more transmission projects within the proposed corridor zone, for example, to access renewable resources, facilitate bulk power transactions, reliably and efficiently serve projected load growth, coordinate with corridors designated under Section 368 of the Federal Energy Policy Act of 2005, or address issues of National Interest Electric Transmission Corridors designated under Section 1221 of the Federal Energy Policy Act of 2005;

(3) a discussion of how each stated objective relates to the applicable strategic plan based on the following:

(A) a discussion of the transmission capacity additions, transmission corridors, and planning timeframes described in the latest strategic plan adopted pursuant to Section 25324 of the Public Resources Code that relate to the transmission corridor zone proposed for designation and

(B) a discussion of the conformity of the proposed transmission corridor zone with all related aspects of the latest adopted strategic plan;

(4) a general description of the transmission facilities that the applicant anticipates would be within the corridor zone, including power lines and voltages, substations, switchyards and other facilities and the reasons for selecting the facilities described;

(5) a discussion of the expected load growth, capacity, and energy levels for the planning timeframe of the transmission project anticipated within the proposed corridor zone;

(6) a discussion of new generating resources and other electricity supplies that are likely to be available in the load area as an alternative to transmission expansion in the planning timeframe and could serve the expected load growth in a manner consistent with the state's energy policies or a discussion of the constraints to the development of local generation resources;

(7) a discussion of the expected energy efficiency and demand reduction measures, as identified in the latest adopted Integrated Energy Policy Report, that are likely to be available in the planning timeframe and could serve as an alternative to transmission expansion;

(8) a discussion of the California Independent System Operator's latest transmission planning results and, if available, the relevant Western Electricity Coordinating Council Regional Planning and Facility Rating Process results, the transmission plans of local publicly owned electric utilities, and other transmission planning studies that have a material bearing on the need of the transmission project(s) that the applicant anticipates within the proposed corridor zone in the planning timeframe; and

(9) a discussion of the need for the proposed corridor zone to achieve the stated objective(s) in subsection (2), given the potential for supply, demand, and efficiency alternatives discussed in subsections (6) and (7) that could also serve the same objective(s).

(d) Corridor Alternatives

In a section entitled, "Corridor Alternatives," the application shall contain:

(1) identification of a reasonable range of alternative corridors that could achieve the basic objectives of the proposed corridor;

(2) a discussion of how the proposed corridor and alternatives were selected, the criteria used to reject alternatives, and an explanation why the proposed corridor is superior to the alternatives; and

(3) a screening-level analysis of a reasonable range of alternative corridors, considering the impacts of each alternative on visual resources, land use, biological resources, cultural resources, and any other impacts that could be significant. Alternatively, an application may provide justification for why there are no feasible alternatives that might reasonably be considered for the proposed corridor.

(e) General Environmental Information Requirements

An application for designation of an electric transmission corridor zone shall provide information addressing potential direct, indirect, and cumulative impacts in all the subject areas identified in the following sections for the proposed transmission corridor zone. The required information shall be provided in sufficient detail to allow determination of the suitability of the proposed transmission corridor zone with respect to reasonably foreseeable environmental, public health and safety, land use, and economic impacts from the future construction, operation, and maintenance of a transmission line within the corridor zone. With respect to potentially significant impacts, each technical area shall also discuss mitigation measures and any monitoring plans to verify the effectiveness of the mitigation.

(f) Water and Soil Resources

In a section entitled, "Water and Soil Resources," the application shall include:

(1) a general narrative description of the hydrologic setting of the proposed transmission corridor zone, including a discussion of any water-related special status areas within, or contiguous to, the corridor zone;

(2) a topographic map, at a scale of 1:24,000 (or another appropriate scale agreed to by staff), showing major water bodies and any identified special status areas within, or contiguous to, the proposed transmission corridor zone. Water-related special status areas may include, but are not limited to, a wild and scenic river; outstanding national resource water; significant natural area, special aquatic site, research natural area, special interest area, and area of critical environmental concern;

(3) a discussion of potential impacts to water resources within, or contiguous to, the proposed transmission corridor zone, that may occur from the future construction, operation, or maintenance of electric transmission line structures within the corridor zone, including anticipated impacts associated with waste discharges, water runoff, drainage, ground water recharge, erosion patterns and the physical or chemical conditions of existing water bodies;

(4) a discussion of what measures could be taken to avoid or mitigate any significant adverse impacts to water resources that are identified;

(5) a discussion of whether any of the water-related special status areas identified could be adversely affected by the future construction, operation, or maintenance of electric transmission line structures within the corridor zone and what measures could be taken to avoid or mitigate significant impacts;

(6) a general narrative description of the topography, major soil types, erosion potential, and agricultural land uses within, or contiguous to, the proposed transmission corridor zone, including a discussion of any special or unique soil areas within, or contiguous to, the corridor zone;

(7) a topographic map, at a scale of 1:24,000 (or another appropriate scale agreed to by staff), showing major soil types and any identified special or unique soil areas within, or contiguous to, the proposed transmission corridor zone, including, but not limited to, areas designated as prime agricultural soil or soil of statewide importance, areas containing expansive soils or soils subject to hydrocompaction, contaminated soils, and areas underlain by naturally occurring asbestos;

(8) a discussion of potential impacts to soil resources within, or contiguous to, the proposed transmission corridor zone, that may occur from the future construction, operation, or maintenance of electric transmission line structures within the transmission corridor zone, including anticipated impacts on soil loss from wind or water erosion, impacts to existing agricultural practices, and potential changes to the soil-vegetation system;

(9) a discussion of what measures could be taken to avoid or mitigate any adverse impacts to soil resources that are identified;

(10) a discussion of whether any of the special or unique soil areas identified could be adversely affected by the future construction, operation, or maintenance of electric transmission line structures within the corridor zone and what measures could be taken to avoid or mitigate significant impacts; and

(11) all assumptions, evidence, references, and calculations used to support the descriptions, discussions, and analyses required in this section.

(g) Waste Management

In a section entitled, “Waste Management,” the application shall include:

(1) a discussion of any contaminated soil or contaminated water within, or contiguous to, the transmission corridor zone that could adversely affect the environment or public health and safety due to the future construction, operation or maintenance of electric transmission line structures within the proposed transmission corridor zone and what measures could be taken to avoid or mitigate significant impacts;

(2) a Phase I Environmental Site Assessment (ESA) for the proposed transmission corridor using methods prescribed by the American Society of Testing and Materials (ASTM) document entitled “Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process” (Designation: E 1527-05); or an equivalent method agreed upon by the applicant and the staff that provides similar documentation of the potential level and extent of site contamination; and

(3) all assumptions, evidence, references, and calculations used to support the descriptions, discussions, and analyses required in this section.

(h) Biological Resources

In a section entitled, “Biological Resources,” the application shall describe the biological resource setting of the proposed transmission line corridor zone and include all of the following:

(1) a discussion and map of sensitive biological resource areas including, but not limited to, wetlands and riparian habitat, areas covered by a Habitat Conservation Plan, Natural Communities Conservation Plan, or similar regional or local habitat protection program, and any area designated as a wildlife refuge or any other special designation;

(2) a list of sensitive species and their habitat known to occur or likely to occur within the proposed corridor zone and within 1 mile of the transmission corridor zone plotted on maps at a scale of 1:24,000 (or another appropriate scale agreed to by staff) or aerial photographs of an appropriate scale;

(3) a discussion of potentially significant biological resource impacts that are reasonably foreseeable from future construction, operation, or maintenance of electric transmission line structures within the corridor zone and mitigation measures to minimize or avoid potentially significant impacts;

(4) a list of biological resource-related state and federal permits that are likely to be required for the transmission corridor and the state and federal laws that are applicable to each permit; and

(5) a list of all who prepared the Biological Resources section and their qualifications.

(i) Cultural Resources

In a section entitled, “Cultural Resources,” the application shall describe the cultural resources setting of the proposed transmission corridor zone and include all of the following:

(1) a discussion of cultural resource information regarding the proposed transmission corridor provided by the California Historical Resources Information System, which is maintained by the California Department of Parks and Recreation, Office of Historic Preservation, through contracts with independent regional Information Centers*,

(2) topographic maps at a scale of 1:24,000 showing the proposed corridor zone, areas already surveyed for cultural resources, and locations of known cultural resources*,

(3) a discussion of sacred lands data base information provided by the Native American Heritage Commission*;

(4) a discussion of contacts made with Native Americans identified by the Native American Heritage Commission and information about locations of archaeological and sacred sites*;

(5) a discussion of known and reasonably foreseeable cultural resource impacts that could be adversely affected from the future construction, operation, or maintenance of electric transmission line structures within the corridor zone and measures that could be taken to mitigate any adverse impacts; and

(6) a list all who prepared the Cultural Resources section and their qualifications. (Include information indicating that they meet the Secretary of the Interior's Professional Qualifications Standards as referenced in the Code of Federal Regulations, Part 61, section 61.3.)

***** Any submittal that contains information about the locations of archaeological sites must be submitted under confidential cover and only a Cultural Resources Specialist is authorized to review confidential cultural resources submittals.

(j) Land Use

In a section entitled, "Land Use," the application shall include:

(1) a general description of existing and future land uses adopted by any federal, state, regional, and local planning agency/authority within the proposed transmission corridor zone;

(2) a map, at a scale of 1:24,000 (or another appropriate scale agreed to by staff), showing existing and future land uses and any identified special status areas within, or contiguous to, the proposed transmission corridor zone;

(3) the identification of special status areas, if any, within the proposed corridor zone and within one mile of the outer boundaries of the proposed corridor; special status areas include, but are not limited to, areas designated by the California Coastal Commission, San Francisco Bay Conservation and Development Commission, and Delta Protection Commission; farmland designated as prime, of statewide importance, or unique by the California Department of Conservation; Federal, State, regional, county and city parks; wilderness, scenic or natural reserves; areas for wildlife protection, recreation, and historic preservation; mineral resource lands; Native American lands; military lands, and airports;

(4) a discussion of whether any of the special status areas identified could be adversely affected by the future construction, operation, or maintenance of electric transmission line structures within the proposed transmission corridor zone and what measures could be taken to avoid or mitigate significant impacts.

(5) a discussion of the potential impacts to present and foreseeable land uses within, or contiguous to, the proposed corridor zone, that may occur from the future construction, operation, or maintenance of electric transmission line structures within the corridor zone; such discussion should include anticipated impacts on residential, recreational, scenic, agricultural, natural resource protection, educational, religious, cultural, and historic areas, military and airport operations, special status areas, and any other area of unique land uses;

(6) a discussion of what measures could be taken to avoid or mitigate potentially significant adverse impacts;

(7) a discussion of any city- or county-designated transmission corridors located anywhere within the local jurisdiction that would be traversed by the proposed corridor;

(8) a discussion of any designated transmission corridors on state or federally managed lands within all counties affected by the corridor;

(9) a discussion of any local, state, or federal laws, ordinances, regulations, or standards that promote or discourage electric transmission lines in specific areas of the affected jurisdictions or that place restrictions on any electric transmission lines to be built within the proposed corridor;

(10) a discussion of any plan changes (e.g., city/county general plan, State Park general plan, National Forest plan, etc.) being considered by affected local, state, and federal jurisdictions that may present an obstacle to the proposed transmission corridor;

(11) on a map at a scale of 1:24,000 (or another appropriate map scale agreed to by staff), identification of any local, state, or federal designated transmission corridors discussed above, and any city sphere-of-influence boundaries; and

(12) all assumptions, evidence, and references used to support the descriptions, discussions, and analyses required in this section.

(k) Traffic and Transportation

In a section entitled, "Traffic and Transportation," the application shall include:

(1) a general description of the regional transportation setting of the proposed transmission corridor zone, including all existing and planned state highways and freeways within the proposed corridor zone and within 0.5 miles of the outer boundaries of the corridor;

(2) identification of any airport within 20,000 feet of a proposed transmission corridor, and any heliport within 5,000 feet of a proposed corridor (or planned or proposed airport runway or an airport runway under construction, that is the subject of a notice or proposal on file with the Federal Aviation Administration);

(3) identification of any designated airport safety zone, airport influence area, or airport referral area within or contiguous to the proposed transmission corridor;

(4) identification of any restricted military airspace within or contiguous to the proposed transmission corridor;

(5) a discussion of how the future construction, operation, or maintenance of electric transmission line structures within the proposed corridor zone would affect what is identified above in subsections (1) through (4);

(6) a discussion of what measures could be taken to avoid or mitigate potentially significant adverse impacts from the future construction, operation, or maintenance of electric transmission line structures within the proposed corridor;

(7) all assumptions, evidence, and references used to support the descriptions, discussions, and analyses required in this section; and

(8) a map, at a scale of 1:24,000 (or another appropriate scale agreed to by staff), showing the transportation facilities identified above.

(l) Visual Resources

In a section entitled, “Visual Resources,” the application shall include:

(1) a general narrative description of the regional visual setting of the proposed transmission corridor zone, including the visual properties of the topography, vegetation, and any modifications to the landscape as a result of human activities;

(2) a discussion of special status areas, if any, within or visible from the proposed corridor zone that could be adversely affected by the future construction, operation, or maintenance of electric transmission line structures within the corridor zone; special status areas include, but are not limited to, areas designated by the California Coastal Commission; state, regional, county and city parks; wilderness, scenic or natural reserves; scenic vistas or scenic resource areas; State Scenic Highways; National Scenic Byways; and All-American Roads;

(3) a discussion of whether any of the special status areas identified could be adversely affected by the future construction, operation, or maintenance of electric transmission line structures within the proposed transmission corridor zone, and what measures could be taken to avoid or mitigate significant impacts;

(4) a topographic map, at a scale of 1:24,000 (or another appropriate scale agreed to by staff), showing the special status areas within or contiguous to, the proposed transmission corridor zone;

(5) a discussion of the potential visual impacts that may occur from the future construction, operation, or maintenance of electric transmission line structures within the corridor zone. The discussion should include anticipated impacts on visually sensitive areas, including, but not limited to, residential, recreational, coastal, and scenic areas, travelers on scenic roadways, and special status areas. The discussion shall also indicate what measures could be taken to avoid or mitigate any potentially significant adverse impacts; and

(6) all assumptions, evidence, and references used to support the descriptions, discussions, and analyses required in this section.

Note: Authority cited: Section 25218(e), Public Resources Code. Reference: Section 25331, Public Resources Code; and Section 15084, Title 14, California Code of Regulations.

Chapter 7. Administration

Article 1. Conflict-of-Interest Code

§ 2401. General Provisions.

The Political Reform Act, (Government Code Sections 81000, et seq.) requires state and local government agencies to adopt and promulgate conflict-of-interest codes. The Fair Political Practices Commission has adopted a regulation (2 Cal. Code of Regs. Sect. 18730) that contains the terms of a standard conflict-of-interest code, which can be incorporated by reference in an agency's code. After public notice and hearing, the standard code may be amended by the Fair Political Practices Commission to conform to amendments in the Political Reform Act. Therefore, the terms of 2 Cal. Code of Regulations Section 18730 and any amendments to it duly adopted

by the Fair Political Practices Commission are hereby incorporated by reference. This regulation and the attached Appendices, designating positions and establishing disclosure categories, shall constitute the conflict-of-interest code of the State Energy Resources Conservation and Development Commission (Energy Commission).

Individuals holding designated positions shall file their statements of economic interests with the Energy Commission, which will make the statements available for public inspection and reproduction. (Gov. Code Section 81008.) Upon receipt of the statement for the Executive Director, the Energy Commission will make and retain a copy and forward the original statement to the Fair Political Practices Commission. The Energy Commission shall forward the original statements for appointed members of the Energy Commission to the Fair Political Practices Commission. The Energy Commission shall forward copies of statements for appointed members of all other multi-member boards and commissions to the Fair Political Practices Commission. All other statements will be retained by the Energy Commission.

Note: Authority cited: Sections 81008, 87300 and 87306, Government Code. Reference: Section 87302, Government Code.

§ 2402. Appendix.

(a) Designated Positions	*Assigned Disclosure Categories*
ALL OFFICES AND DIVISIONS	
CEA Positions (All levels)	1
Exempt Positions	*
Special Consultant	1
Interjurisdictional Exchange (any office or division)	1
COMMISSIONERS' OFFICES	
Advisor to a Commissioner (All Classifications)	1
OFFICE OF EXECUTIVE DIRECTOR	
Information Officer II (Supervisory) (Media)	1
Information Officer I (Specialist) (Media)	7,9
Graphic Designer (Media)	9
Staff Management Auditor	10
Energy Commission Specialist III (IEPR)	1
Energy Commission Specialist II (IEPR)	2,7,9
Energy Commission Specialist I (IEPR)	2,7
Energy Commission Specialist (All levels) (Compliance and Enforcement)	2,4,7
Associate Energy Specialist (Compliance and Enforcement)	4,7
Research Specialist III (Economics)	1
Environmental Scientist (Nuclear)	4,5
Training Officer II	2
OFFICE OF CHIEF COUNSEL	
Chief Counsel	1
Assistant Chief Counsel	1
Attorney (All levels)	1
Hearing Adviser (All levels)	1
OFFICE OF THE PUBLIC ADVISER	
Public Adviser	1
Associate Public Adviser	1

ADMINISTRATIVE AND FINANCIAL MANAGEMENT SERVICES DIVISION

HUMAN RESOURCES AND SUPPORT SERVICES BRANCH	
Staff Services Manager III	2
BUSINESS SERVICES OFFICE	
Business Services Assistant	2
Business Services Officer (All levels)	2
SELECTION AND EEO OFFICE	
Staff Services Manager II (Supervisor)	2
INFORMATION TECHNOLOGY SERVICES BRANCH	
Information Systems Analyst (Assistant, Associate, Staff, and Senior)	3
Data Processing Manager (All levels)	3
Programmer Analyst (All levels)	3
System Software Specialist (All levels)	3
BUDGET, CONTRACTS, GRANTS, AND LOANS	1
Staff Services Manager II-Contracts, Grants, and Loans Staff Services Manager II-Budget	2,7
Associate Governmental Program Analyst	2,7
Staff Services Analyst	2,7
EFFICIENCY DIVISION	2,4,7
Energy Resources Specialist III (Managerial)	
Electric Generation Systems Program Specialist III	2,4,7
Energy Commission Supervisor II	2,4,7
Energy Commission Specialist (All levels)	2,4,7
Associate Energy Specialist	4,7
Mechanical Engineer (All levels)	4,7
Electrical Engineer (All levels)	4,7
Civil Engineer (All levels)	4,7
RENEWABLE ENERGY DIVISION	
Energy Resources Specialist III (Managerial)	2,4,7
Energy Resources Specialist III (Supervisory)	2,4,7
Energy Generation Systems Specialist (All levels)	2,4,7
Energy Commission Specialist (All levels)	2,4,7

Associate Energy Specialist	4,7
Mechanical Engineer (All levels)	4,7
Engineering Geologist	2,4,7

SITING, TRANSMISSION, AND ENVIRONMENTAL PROTECTION DIVISION

Energy Resources Specialist III (Managerial)	1
Energy Resources Specialist III (Supervisory)	5,6,7, 8
Planner - Energy Facilities Siting (All levels)	5,6,7, 8
Electric Transmission Systems Program Specialist (All levels)	5,6,7, 8
Electric Generation Systems Program Specialist (All levels)	5,6,8
Energy Commission Specialist (All levels)	5,6,8
Staff Toxicologist	5,6,8
Electrical Engineer (All levels)	5,6,8
Mechanical Engineer (All levels)	5,6,8
Engineering Geologist (All levels)	5,6,8
Civil Engineer (All levels)	5,6,8
Air Resources Supervisor I	5,6
Air Resources Engineer	5,6

ENERGY RESEARCH AND DEVELOPMENT DIVISION

Energy Resources Specialist III (Managerial)	1
Energy Commission Supervisor II	5,6,7, 9
Energy Commission Specialist (All levels)	5,6,7, 9
Associate Automotive Equipment Standards Engineer	5,6,7
Electric Generation System Specialist (All levels)	5,6,7
Associate Energy Specialist	5,6,7
Associate Geologist	5,6,7
Mechanical Engineer (All levels)	5,6,7
Electrical Engineer (All levels)	5,6,7
Electric Generation Systems Program Specialist I	5,6,7

FUELS AND TRANSPORTATION DIVISION

Energy Resources Specialist III (Managerial)	2,6,7
Energy Commission Supervisor II	6,7
Air Pollution Specialist	6,7

Energy Commission Specialist (All levels)	6,7
Automotive Equipment Standards Engineer (All-levels)	6,7
Associate Energy Specialist	6,7
Air Resources Engineer	6,7

ENERGY ASSESSMENTS DIVISION

Energy Resources Specialist III (Managerial)	2,5,6
Energy Commission Specialist (All levels)	5,6
Energy Commission Supervisor II	5,6
Electric Generation System Specialist (All levels)	5,6
Mechanical Engineer (All levels)	5,6
Electric Generation System Program Specialist (All levels)	5,6
Electric Transmission System Program Specialist (All levels)	5,6
Electrical Engineer (All levels)	5,6
Engineering Geologist	5,6
Research Specialist III & IV	5,6
Associate Automotive Equipment Standards Engineer	5,6

CONSULTANTS/NEW POSITIONS

Consultants/New Positions	**

* Exempt Positions are included in the list of designated positions and shall disclose pursuant to the broadest disclosure category in the code (Category 1), subject to the following limitation: The Executive Director may determine in writing that a particular exempt position, although a “designated position,” is hired to perform a range of duties that is limited in scope and thus is not required to fully comply with the disclosure requirements in this section. Such written determination shall include a description of the exempt position's duties and, based upon that description, a statement of the extent of disclosure requirements. The Executive Director's determination is a public record and shall be retained for public inspection in the same manner and location as this conflict-of-Interest code. (Gov't Code § 81008.)

** Consultants/New Positions are included in the list of designated positions and shall disclose pursuant to the broadest disclosure category in the code (Category 1), subject to the following limitation: The Executive Director may determine in writing that a particular consultant or new position, although a “designated position,” is hired to perform a range of duties that is limited in scope and thus is not required to fully comply with the disclosure requirements in this section. Such written determination shall include a description of the consultant's or new position's duties and, based upon that description, a statement of the extent of disclosure requirements. The Executive Director's determination is a public record and shall be retained for public inspection in the same manner and location as this conflict-of-Interest code. (Gov't Code § 81008.)

Officials Covered By Government Code Section 87200

The following positions are not covered by the conflict-of-interest code because they must file a statement of economic interests under Government Code Section 87200 and therefore, are listed for informational purposes only:

Commissioner, State Energy Resources Conservation and Development Commission

An individual holding one of the above listed positions may contact the Fair Political Practices Commission for assistance or written advice regarding their filing obligations if they believe that their position has been categorized incorrectly. The Fair Political Practices Commission makes the final determination whether a position is covered by Section 87200.

(b) Disclosure Categories

For purposes of the following categories, “business entity” means any organization or enterprise operated for profit, including a proprietorship, partnership, firm, business trust, joint venture, syndicate, corporation or association. “Business position” refers to status as a director, officer, partner, trustee, employee, or holder of a position of management in any business entity.

Category 1

Designated positions assigned to this category must report all interest in real property, sources of income, including receipt of gifts, loans, and travel payments, and investments and business positions in business entities.

Category 2

Designated positions assigned to this category must report income, including receipt of gifts, loans, and travel payments, from, and investments and business positions in, business entities that provide services (including training or consulting services), supplies, materials, machinery, or equipment of the type purchased, leased, or obtained by contract by the Energy Commission for use by the Energy Commission, its members, employees, or consultants.

Category 3

Designated positions assigned to this category must report income, including receipt of gifts, loans, and travel payments, from, and investments and business positions in, business entities that manufacture, sell, distribute, or otherwise provide computers, computer hardware, computer software, computer services, computer models, or computer-related supplies, materials, machinery, or equipment of the type utilized by the Energy Commission.

Category 4

Designated positions assigned to this category must report income, including receipt of gifts, loans, and travel payments, from, and investments and business positions in, business entities engaged in the design, manufacture, sale, distribution, assessment, calibration, evaluation, or testing of any appliance, equipment, product, program, service, or structure required to be approved by or to meet standards set by the Energy Commission.

Category 5

Designated positions assigned to this category must report income, including receipt of gifts, loans, and travel payments, from, and investments and business positions in,

- business entities that engage in the design, development, construction, sale, application for certification, acquisition of facilities that generate electricity, including, wind, solar, geothermal, hydroelectric, ocean, garbage, and biomass; and

- sources that are subject to the regulatory, permit or licensing authority of, or have an application for a license or permit pending before, the Energy Commission.

Category 6

Designated positions assigned to this category must report income, including receipt of gifts, loans, and travel payments, from, and investments and business positions in,

- business entities that are energy or environmental consultants, research firms, or engineering firms,

- business entities that design, build, manufacture, sell, distribute, or service equipment of the type that is utilized by electric power suppliers, including, wind, solar, geothermal, hydroelectric, ocean, garbage, and biomass, or

- any energy-producing entity that is a party to an Energy Commission proceeding; and

- sources that are subject to the regulatory, permit or licensing authority of, or have an application for a license or permit pending before, the Energy Commission.

Category 7

Designated positions assigned to this category must report income, including receipt of gifts, loans, and travel payments, from, and investments and business positions in, business entities of the type that have applied for or received any loan or grant from the Energy Commission.

Category 8

Designated positions assigned to this category must report all interests in real property located within the State of California that is zoned or used primarily for industrial or commercial purposes.

Category 9

Designated positions assigned to this category must report income, including receipt of gifts, loans, and travel payments, from, and investments and business positions in, business entities of the type that have contracted with the Energy Commission to provide services related to the design, editing, production, drafting, artwork, printing, publication, or distribution of an Energy Commission document.

Category 10

Designated positions assigned to this category must report whether, during the reporting period, he/she had a financial interest in any of his/her assignments. If he/she had no such interest, they shall file Fair Political Practices Commission Form 700-A. Otherwise, they shall disclose their pertinent financial interest on the schedules for Fair Political Practices Commission Form 700.

Note: Authority cited: Sections 87300 and 87306, Government Code. Reference: Sections 87200 and 87302, Government Code.

Article 2. Disclosure of Commission Records

§ 2501. Policy.

The California Legislature and California Constitution have declared that access to information concerning the conduct of the people's business is a fundamental and necessary right of every person in this state, and have also recognized that there are sound reasons for protecting privacy. The Commission has adopted these regulations so that members of the public will fully understand and be given the opportunity to exercise their right to inspect and copy Commission records with the least possible delay and expense, and so that legitimate interests in confidentiality will be protected.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 6253(a), Government Code. Reference: Article 1, Section 3(b), California Constitution; Sections 6250 and 6254, Government Code; and Sections 25223, 25322 and 25366, Public Resources Code.

§ 2502. Scope.

This Article applies to inspection and copying of all records. It applies to any person making any request to copy or inspect records. It applies to any request by any person for the Commission to keep a record confidential, including, but not limited to, requests pursuant to Section 25322 of the Public Resources Code.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 6253(a), Government Code. Reference: Sections 25223, 25322 and 25366, Public Resources Code.

§ 2503. Construction and Definitions.

(a) This Article implements the California Public Records Act (Section 6250 et seq. of the Government Code) and shall be construed in a manner consistent with that Act.

(b) For purposes of this Article the definitions in the California Public Records Act, the definitions in Section 1302 of Article 1 of Chapter 3, and the following definitions shall apply:

(1) “Private third party” means any person other than a federal, state, regional, or local governmental body, or a person under contract to such body, except that for purposes of data submitted pursuant to Chapter 3 (beginning with Section 1301) and Chapter 5 (beginning

with Section 1701) of this Division, a federal, state, regional, or local governmental body, or person under contract to such body, shall be deemed to be a private third party.

(2) "Confidential record" means a record that has been determined to be confidential pursuant to Section 2505 or 2506 of this Article.

(3) "Applicant" means a private third party requesting that the Commission keep a record confidential pursuant to Section 2505 of this Article.

(4) "Petitioner" means a person seeking to inspect or copy a confidential record pursuant to Section 2506 of this Article.

(5) "Petition" means a request from a petitioner seeking to inspect or copy a confidential record, pursuant to Section 2506 of this Article.

(6) "Fuel Price" means fuel cost divided by fuel use expressed in dollars, for a specific fuel type.

(7) "Masked" means, but is not limited to, customer, business, or cultural data that has been modified to limit the risk of disclosure of confidential information. Methods of data modification may include, but are not limited to, suppression of data, rounding, swapping of values between like respondents, replacement of data with group averages, grouping of categories, and addition of random values.

(8) "Survey Response" means the answers to survey questions provided by persons or companies.

(9) "Aggregated" means that data is summed, averaged, or otherwise combined to limit the risk of disclosure of confidential information.

(10) "Freedom of Information Act" is contained at Title 5 United States Code Section 552.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 6253(a), Government Code. Reference: Sections 25223, 25322 and 25366, Public Resources Code; and Sections 6250 et seq., Government Code.

§ 2504. Inspection and Copying.

(a) This section applies to all records, except records deemed confidential, which are subject to the provisions of Section 2506.

(b) A request to inspect or copy a record shall be made orally or in writing to the Office of Chief Counsel. The Public Adviser will assist persons in requesting records. A request shall describe the record sought in sufficient detail so that it can be identified and found by a Commission employee.

(c) Time and Place. A request to inspect or copy a readily identifiable and available record shall be satisfied within ten days of receipt of the request unless the need to complete processing or filing of the record, the use of the record by another person or a Commission employee, the volume of requests, the unavailability of Commission employees, or other unusual circumstances renders such a response impracticable, in which case the Commission will notify

the person making the request of the need for an extension within ten days of the request. Such extension shall not exceed ten working days. All records except records determined to be confidential pursuant to Section 2505, Section 2506, or Section 2508 shall be made available for inspection and copying Monday through Friday, generally between 8 a.m. and 5 p.m at the Commission's offices. The Executive Director shall make reasonable efforts to provide facilities for inspection of records, including a desk for notetaking.

(d) Protection of Records. Records may be inspected or copied only at Commission offices. The Executive Director may designate a particular place for the public to inspect or copy records. He or she may establish procedures for responding in a fair and orderly manner to numerous requests, including, when strictly necessary to prevent disruption of Commission functions, establishing a specific time each day for inspection and copying. He or she may require a Commission employee to be present at the time of inspection or copying, but such employee shall not disturb a person inspecting or copying records. Where necessary, copies of records rather than originals may be provided for inspection.

(e) Computer Records. Inspection and copying of computer records and other records whose form makes inspection or copying difficult or impracticable shall be in a manner determined by the Executive Director. If providing an exact copy is impracticable, some type of copy shall nevertheless be provided.

(f) Copies. Except for records determined to be confidential pursuant to Section 2505 or Section 2506, copies and certified copies of all records are available to any person for a fee which shall be paid at the time a request is made. The fee for providing a copy or a certified copy shall be no higher than the actual cost of providing the copy, or the prescribed statutory fee, whichever is less.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 6253(a), Government Code. Reference: Sections 25223, 25322 and 25366, Public Resources Code; and Sections 6253(a), 6256 and 6257, Government Code.

§ 2505. Designation of Confidential Records.

(a) Third Parties.

(1) Any private third party giving custody or ownership of a record to the Commission shall specify if it should be designated a confidential record and not publicly disclosed. An application for confidential designation shall:

(A) be on a sheet or sheets separate from, but attached to, the record;

(B) specifically indicate those parts of the record that should be kept confidential;

(C) state the length of time the record should be kept confidential, and justification for the length of time;

(D) cite and discuss the provisions of the Public Records Act or other law that allow the Commission to keep the record confidential. If the applicant believes that the record should not be disclosed because it contains trade secrets or its disclosure would otherwise cause loss of a competitive advantage, the application shall also state the specific nature of that advantage and how it would be lost, including the value of the information to the applicant, and the ease or difficulty with which the information could be legitimately acquired or duplicated by others;

(E) state whether the information may be disclosed if it is aggregated with other information or masked to conceal certain portions, and if so the degree of aggregation or masking required. If the information cannot be disclosed even if aggregated or masked, the application shall justify why it cannot;

(F) state how the information is kept confidential by the applicant and whether it has ever been disclosed to a person other than an employee of the applicant, and if so under what circumstances;

(G) contain the following certification executed by the person primarily responsible for preparing the application:

1. "I certify under penalty of perjury that the information contained in this application for confidential designation is true, correct, and complete to the best of my knowledge," and

2. State whether the applicant is a company, firm, partnership, trust, corporation, or other business entity, or an organization or association, and

3. State that the person preparing the request is authorized to make the application and certification on behalf of the entity, organization, or association.

(H) If the record contains information that the applicant has received from another party who has demanded or requested that the applicant maintain the confidentiality of the information, the applicant shall address the items in (B) through (F) of this subsection to the greatest extent possible and shall explain the demand or request made by the original party and the reasons expressed by the original party. If the basis of an application for confidential designation is an order or decision of another public agency pursuant to the Public Records Act or the Freedom of Information Act, the application shall include only a copy of the decision or order and an explanation of its applicability. The Executive Director shall consult with that agency before issuing a determination.

(2) A deficient or incomplete application shall be returned to the applicant with a statement of its defects. The record or records for which confidentiality was requested shall not be disclosed for fourteen days after return of the application to allow a new application to be submitted except as provided in Section 2507 of this Article.

(3) Executive Director's Determination.

(A) The Executive Director shall, after consulting with the Chief Counsel, determine if an application for confidential designation should be granted. An application shall be granted if the applicant makes a reasonable claim that the Public Records Act or other provision of law authorizes the Commission to keep the record confidential. The Executive Director's determination shall be in writing and shall be issued no later than thirty days after receipt of a complete application. The Executive Director or the Chief Counsel may, within fourteen days after receipt of an application for confidential designation, require the applicant to submit any information that is missing from the application. If the missing information is not submitted within fourteen days of receipt of the request by the Executive Director or Chief Counsel, the Executive Director may deny the application.

(B) If an application is denied by the Executive Director, the applicant shall have fourteen days to request that the Commission determine the confidentiality of the record. If the applicant makes such a request, the Commission shall conduct a proceeding pursuant to the provisions of Section 2508.

(C) After an application has been denied, the information sought to be designated confidential shall not be available for inspection or copying for a period of fourteen days, except as provided in Section 2507 of this Article.

(4) Repeated Applications for Confidential Designation. If an applicant is seeking a confidential designation for information that is substantially similar to information that was previously deemed confidential by the Commission pursuant to Section 2508, or for which an application for confidential designation was granted by the Executive Director pursuant to subdivision (a)(3)(A) of this section, the new application need contain only a certification, executed under penalty of perjury, stating that the information submitted is substantially similar to the previously submitted information and that all the facts and circumstances relevant to confidentiality remain unchanged. An application meeting these criteria will be approved.

(5) Automatic Designation. Information submitted by a private third party shall be designated confidential without an application for confidentiality if the requirements of subsections (a)(5)(A) and (B) of this Section are met. If the requirements of subsection (a)(5)(A) and (B) are not met, the Executive Director shall inform the private third party that the record will not be deemed confidential. Except as provided in Section 2507 of this Article, the record for which confidentiality was requested shall not be disclosed for fourteen days to allow the requirements of subsection (a)(5)(A) and (B) to be met or to allow the filing of an application pursuant to subsection (a)(1) of this section.

(A) The entity submitting the information shall label each individual item of the submittal that is entitled to be designated confidential.

(B) The entity submitting the information shall attest under penalty of perjury that the information submitted has not been previously released and that it falls within one of the following categories:

1. Information that is derived from energy consumption metering, energy load metering research projects, or energy surveys provided pursuant to Section 1343 or 1344 of Article 2 of Chapter 3, and that is one or more of the following:

a. for the residential customer sector and the commercial customer sector - customer identifiers, energy consumption, and any other information that could allow a third party to uniquely identify a specific respondent;

b. industrial major customer sector - all information;

c. survey design information - all information used to design a survey, stratify billing records, devise a sample scheme, select a sample, sample specific end-users for participation in a survey or a pre-test of a questionnaire or interview form.

2. Energy sales data provided pursuant to Section 1306, 1307, or 1308(c) of Article 1 of Chapter 3, if the data is at the greatest level of disaggregation required therein.

3. Information submitted by each LSE that is not a UDC that consists of:

a. Load forecasts and supporting customer projections by UDC distribution service area submitted pursuant to subdivision (b) of Section 1345 of Article 2 of Chapter 3.

b. Retail electricity price forecasts submitted pursuant to subdivision (a) of Section 1348 of Article 2 of Chapter 3.

4. Fuel cost data provided for individual electric generators under Section 1304 and fuel price data provided pursuant to subdivision (d) of Section 1308 of Article 1 of Chapter 3.

5. Records of Native American graves, cemeteries, and sacred places maintained by the Native American Heritage Commission.

6. Electric power plant-specific hourly generation data.

7. Electric power plant name, nameplate capacity, voltage at which the power plant is interconnected with a UDC system or transmission grid, address where the power plant is physically located, power plant owner's full legal name and address or longitude and latitude, if power plant is privately owned and its identity as a power plant is not public knowledge, (e.g., backup generator or solar installation at residence or business) under Section 1304 of Article 1 of Chapter 3.

8. Information the release of which is prohibited pursuant to the Information Practices Act (Civil Code Section 1798 et seq.)

9. All information provided pursuant to Section 1314 of Article 1 of Chapter 3 and Section 1353 of Article 2 of Chapter 3.

(6) Failure to request confidentiality at the time a record is submitted to the Commission does not waive the right to request confidentiality later; however, once a record has been released to the public, the record can no longer be deemed confidential. Although a record designated as confidential shall remain confidential during the application and appeal process, subject to the provisions of Section 2507(b) of this Article, the application itself is a public document and can be released.

(b) Governmental Entities. When another federal, state, regional, or local agency or state-created private entity, such as the California Independent System Operator, possesses information pertinent to the responsibilities of the Commission that has been designated by that agency as confidential under the Public Records Act, or the Freedom of Information Act, the Commission, the Executive Director, or the Chief Counsel may request, and the agency shall submit the information to the Commission without an application for confidential designation. The Commission shall designate this information confidential.

(c) Commission Generated Information

(1) The Executive Director in consultation with the Chief Counsel, may designate information generated by Commission staff as confidential under the Public Records Act. A confidential designation made in this manner shall be summarized in the agenda for the next Commission Business Meeting. Any private third party or public entity may request to inspect or copy these confidential records by filing a petition pursuant to Section 2506 of this Article.

(2) Contracts and Proposals

(A) Information received by the Commission in response to a solicitation shall be kept confidential by the Commission and its evaluators before posting of the notice of the proposed award. The solicitation document shall specify what confidential information the proposal may contain and how that confidential information will be handled after the posting of the notice of the proposed award.

(B) The Executive Director, in consultation with the Chief Counsel, may designate certain information submitted under a contract as confidential in accordance with the Public Records Act or other provisions of law. The designation and its basis shall be in writing and contained in the contract governing the submittal of the information or in a separate statement. The contract or written statement shall also state exactly what information shall be designated confidential, how long it shall remain confidential, the procedures for handling the information, and all other matters pertinent to the confidential designation of the information.

(3) All data generated by the Commission that is the same type as the data described in Section 2505(a)(5)(B) of this Article shall be kept confidential by the Commission.

(d) All documents designated confidential pursuant to this Section shall be treated as confidential by the Commission except as provided in Section 2507.

(e) Every three months, the Executive Director shall prepare a list of data designated confidential pursuant to this Section during the previous three months. The Executive Director shall give the list to each Commissioner. The list shall also be made available to the public upon request.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 6253(a), Government Code. Reference: Sections 25223, 25322, 25364 and 25366, Public Resources Code; and *Bakersfield City School District v. Superior Court* (2004) 118 Cal.App.4th 1041.

§ 2506. Petition for Inspection or Copying of Confidential Records; Chief Counsel Decision.

(a) Form of Petition. A petition for inspection or copying of any confidential record shall be written, and shall be served on the Chief Counsel. It shall state the facts and legal authority supporting a conclusion that the Commission should disclose the confidential record. If the request is for inspection or copying of records deemed confidential after a Commission decision issued pursuant to Section 2508, the petition shall identify new information that has become available or changed circumstances that have occurred that materially affected the previous determination.

(b) Delegation of Commission Decision to the Chief Counsel.

(1) The decision of the Commission on a petition for inspection or copying of confidential records is delegated to the Chief Counsel.

(2) If the petition is for inspection or copying of a record received from a private third party, a person under contract to the Commission, or another government agency, the Chief Counsel shall:

(A) within one day of service of the petition, provide both a copy of the petition to the person or entity that submitted the information and a written request for written approval of release of the record. Any party not wishing to give permission for the record's release may supplement the initial application for confidential designation, if any, or provide any additional information within five working days of the receipt of the request for permission. Failure to respond to the Chief Counsel's request to release the record shall not be deemed consent for release.

(B) within five working days of receipt of a petition, provide the petitioner with a written summary of the basis of the original confidential determination and a copy of the Commission's regulations governing the disclosure of Commission records.

(3) The Chief Counsel shall issue a decision on the petition within ten days of its service on the Chief Counsel, unless unusual circumstances renders such a decision impossible, in which case the Chief Counsel will notify the petitioner of the need for an extension within ten days of the filing of the petition. Such extension shall not exceed fourteen days.

(4) The Chief Counsel shall base his or her decision on whether the entity seeking to maintain the confidentiality of the record has met its burden of proof in demonstrating that confidentiality is warranted under the California Public Records Act, and that, considering all the facts and circumstances, the record should be kept confidential.

(5) If the request is for inspection or copying of records deemed confidential after a Commission decision issued pursuant to Section 2508, the Chief Counsel shall deny the petition unless the petition identifies new information that has become available or changed circumstances that have occurred that materially affect the previous determination.

(6) Any party may request that the full Commission reconsider the Chief's Counsel's decision, in which case, the Commission shall conduct a proceeding pursuant to the provisions of Section 2508. Any such request shall be filed within fourteen days of the issuance of the Chief Counsel's decision.

(7) A decision that a record should be disclosed shall ordinarily be effective fourteen days after issuance, although an earlier effective date may be specified in unusual circumstances, consistent with maintaining the opportunity of the person originally submitting the information to prevent its release by requesting reconsideration or appealing the decision to a court of competent jurisdiction. A decision that the record is exempt from disclosure shall be effective immediately.

(c) List of Records Determined to be Confidential. The Executive Director shall maintain a list of records the Commission orders held confidential pursuant to this section.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 6253(a), Government Code. Reference: Sections 25223, 25322 and 25366, Public Resources Code; Sections 6250 et seq., Government Code; and Bakersfield City School District v. Superior Court (2004) 118 Cal.App.4th 1041.

§ 2507. Disclosure of Confidential Records.

(a) No confidential record shall be disclosed except as provided by this Section, Section 2506, or Section 2508, unless disclosure is ordered by a court of competent jurisdiction.

(b) No record that is the subject of a pending request for confidentiality pursuant to subdivisions (a) or (c) of Section 2505, a pending petition for inspection or copying of confidential

records pursuant to subdivision (b)(5) of Section 2506, or a pending request pursuant to subdivision (e)(2) and (f)(2) of this section shall be disclosed except as provided in this section, unless disclosure is ordered by a court of competent jurisdiction.

(c) The Executive Director may disclose records previously designated as confidential to:

(1) Commission employees or representatives whose Commission work requires inspection of the records;

(2) Persons under contract to the Commission whose work for the Commission requires inspection of the records and who agree in a contract to keep the records confidential; and

(3) Other governmental bodies and state-created private entities, such as the California Independent System Operator, that need the records to perform their official functions and that agree to keep the records confidential and to disclose the records only to those employees or contractors whose agency work requires inspection of the records.

(d) The Executive Director may disclose data collected in association with customer surveys of the type described in Section 1343 of Article 2 of Chapter 3 and that are not masked or aggregated to the following entities:

(1) Demand side management program administrators, funded through the Energy Efficiency Public Goods Charge (EEPGC) established in Public Utilities Code Section 381(c), which need the survey responses to perform their official functions and that agree to keep the records confidential and to disclose the records only to those employees, and contractors, who need that data for EEPGC program evaluation and planning.

(2) Utilities that opt into collaborative surveys funded by the Commission, or that contribute funds for the implementation of a survey coordinated by the Commission, pursuant to Section 1343(f) of Article 2 of Chapter 3, may have access to that portion of survey responses by customers included within their service area provided they agree to keep the records confidential and to disclose the records only to those employees, and contractors, who need the data for distribution system planning.

(e) The Executive Director may release records previously designated as confidential in either of the following circumstances:

(1) where the confidential information has been masked or aggregated as described below in subdivisions (A)-(D).

(A) Data provided pursuant to Section 1306(a)(1), 1306(b), Section 1307(a), and Section 1308(c)(1) of Article 1 of Chapter 3 may be disclosed at the following levels of aggregation or higher:

1. For an individual LSE for whom electricity is delivered by one or more UDCs, data for each LSE aggregated at the statewide level by year and major customer sector.

2. For an individual gas retailer for whom gas is delivered by one or more gas utilities, data for each gas retailer aggregated at the statewide level by year and major customer sector.

3. For the sum of all LSEs for whom electricity is delivered by one or more UDCs (1) data aggregated at the county level by residential and non-residential groups, and (2) data aggregated at the distribution service area, planning area, or statewide level by major customer sector.

4. For the sum of all gas retailers for whom gas is delivered by gas utilities (1) data aggregated at the county level by residential and non-residential groups, and 2) data aggregated at the distribution service area, planning area, or statewide level by major customer sector.

5. For a UDC with a peak load of less than 200 MW during both of the previous two years or a gas utility with deliveries of less than 50 billion cubic feet per year during both of the previous two years, data aggregated at the distribution service area, planning area, or statewide level by major customer sector.

6. For a UDC with a peak load of 200 MW or more during both of the previous two years or a gas utility with deliveries of 50 billion cubic feet or less during both of the previous two years, (1) data aggregated at the county level by residential and non-residential groups, and (2) data aggregated at the distribution service area, planning area, or statewide level by major customer sector.

7. For the total sales by county:

a. sum accounts, kWh, and revenue reported by all UDCs, aggregated at the county level by the economic industry groupings used by the California Employment Development Department in its September 2005 Current Employment Statistics survey county reports.

b. sum accounts, therms, and revenue reported by all gas utilities, aggregated at the county level by the economic industry groupings used by the California Employment Development Department in its September 2005 Current Employment Statistics survey county reports.

8. For total consumption by county:

a. sum electricity deliveries (kWh) reported by all UDCs and electric generation consumed on site (other than for plant use) reported by power plants, aggregated at the county level by the economic industry groupings used by the California Employment Development Department in its September 2005 Current Employment Statistics survey county reports.

b. the sum of natural gas deliveries (therms) as reported by all gas utilities, and natural gas that is produced and consumed on site as reported by gas retailers, with the sum aggregated at the county level by the economic industry groupings used by the California Employment Development Department in its September 2005 Current Employment Statistics survey county reports.

(B) Electric generator fuel cost data provided pursuant to Section 1304(a)(2)(C) and electric generator fuel price data computed from fuel cost and fuel use data reported pursuant to Section 1304(a)(2)(C), may be disclosed if aggregated by fuel type and gas service area or higher, and if the disclosure is made six months after the end of the month for which prices were reported.

(C) Data of the type described in Section 1343 of Chapter 3, Article 2 and collected in association with customer surveys that are begun after December 8, 2000, may be disclosed in the following manner:

1. Residential customer sector and commercial customer sector survey responses from persons or companies may be released after name, address, and other respondent identifiers have been removed, and usage data and responses to specific survey questions that could allow a third party to uniquely identify a respondent have been masked;

2. Industrial major customer sector responses from companies may not be released. Tabulations of industrial major customer sector survey data may be released only after the data has been aggregated to ensure that information about respondents will not be disclosed.

(2) where information designated as confidential that is other than that identified in subdivision (e)(1) above has been masked or aggregated to the point necessary to protect confidentiality. When the Executive Director plans to release masked or aggregated confidential data, he or she shall provide notice to the filer of the information, who may, within fourteen days, request that the Commission prohibit the release of the information. During that time, the records shall not be available for inspection or copying. If the filer makes such a request, the Commission shall conduct a proceeding pursuant to the provisions of Section 2508.

(f) The Executive Director may release records previously designated as confidential in either of the following circumstances:

(1) upon written permission by all entities who have the right to maintain the information as confidential; or

(2) under any other circumstance where the information is no longer entitled to confidential treatment. When the Executive Director plans to release such information, he or she shall provide notice to the filer of the information, who may, within fourteen days, request that the Commission prohibit the release of the information. During that time, the records shall not be available for inspection or copying. If the filer makes such a request, the Commission shall conduct a proceeding pursuant to the provisions of Section 2508.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 6253(a), Government Code. Reference: Sections 25223, 25322 and 25366, Public Resources Code.

§ 2508. Commission Hearing on Confidentiality of Records.

(a) The Commission shall hold a hearing to determine the confidentiality of Commission records in response to a timely request pursuant to subdivisions (a)(3)(B) and (c)(1) of Section 2505, subdivision (b)(5) of Section 2506, or subdivisions (e) (2) or (f)(2) of Section 2507. The Commission may also hold a hearing to determine the confidentiality of Commission records on its own motion or on a motion by Commission staff. Any person, including but not limited to the Commission staff, may participate in such hearing.

(b) A Commission decision on the confidentiality of records pursuant to this section shall be based on whether the entity seeking to maintain the confidentiality of the record has met its burden of proof in demonstrating that confidentiality is warranted under the California Public Records Act, and that, considering all the facts and circumstances, the record should be kept confidential.

(c) If the Commission has already held a hearing pursuant to this section to determine the confidentiality of a Commission record, it need not hold an additional hearing on the confidentiality of that record unless the entity seeking the additional hearing has demonstrated that there is new information or changed circumstances that materially affects the Commission's previous determination.

(d) If the Commission determines, pursuant to this section, that a record is not entitled to confidentiality, the record that is the subject of the hearing shall not be available for inspection or copying for a period of fourteen days after such determination, unless disclosure is ordered by a court of competent jurisdiction.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 6253(a), Government Code. Reference: Sections 25223, 25322 and 25366, Public Resources Code; and Bakersfield City School District v. Superior Court (2004) 118 Cal.App.4th 1041.

§ 2509. Security of Confidential Records.

The Executive Director is responsible for maintaining the security of confidential records and records determined by the Commission to be unavailable pursuant to Sections 2505 and 2506.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code and Section 6253(a), Government Code. Reference: Section 25223, Public Resources Code.

§ 2510. Delegation of Authority and Responsibilities.

The Executive Director may delegate any of his or her authorities or responsibilities under this Article to any Division Chief.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code and Section 6253(a), Government Code. Reference: Section 25223, Public Resources Code.

Article 3. Role of Public Adviser

§ 2551. Application of Article.

This article defines the duties of the public adviser to the State Energy Resources Conservation and Development Commission, which duties are outlined in sections 25222 and 25519 of the Public Resources Code, and any amendments to Division 15 of the Public Resources Code.

Note: Authority cited: Sections 25213, 25218(e) and 25218(f), Public Resources Code. Reference: Sections 25217-25217.5, 25222, 25223 and 25519(g), Public Resources Code.

§ 2552. Definitions.

(a) "Member of the public" means any person, firm, association, organization, partnership, business trust, corporation, or company, and also includes any city, county, public district or agency, state or any department or agency thereof (except for the commission and members of its staff), and the United States or any department or agency thereof.

(b) "Proceeding" means any meeting, hearing, workshop, conference, or visit, of the commission or its staff, at which public attendance is required or permitted.

§ 2553. Overall Duty of the Public Adviser.

The public adviser serves as adviser to the public and to the commission to ensure that full and adequate participation by members of the public is secured in the commission's proceedings. The adviser serves the public and the commission by (1) advising the public how to participate fully in the commission's proceedings, thereby providing the commission with the most comprehensive record feasible in those proceedings; (2) advising the commission on the measures it should employ to assure open consideration and public participation in its proceedings; and (3) taking other measures to comply with sections 25222 and 25519(g) of the Public Resources Code.

§ 2554. The Adviser's Duty to Refrain from Advocating Substantive Positions.

In performing duties to the commission, including those duties discharged by advising the public, the adviser shall not represent any members of the public, nor shall he advocate any substantive position on issues before the commission.

§ 2555. The Adviser's Duty Within the Commission.

(a) Within the commission the adviser shall present recommendations to and requests for documents from line divisions of the commission only through the executive director or the division chiefs. The public adviser shall be given full and ready access to all public records.

(b) In recommending to the commission measures to assure full public participation in the commission's proceedings, the adviser shall render his or her independent advice on commission procedures that in the adviser's view will provide the optimum of public participation to benefit the commission in its work. As part of such advice, the adviser may advocate points of procedure that in the adviser's view will improve public participation in the commission's proceedings.

(c) So that the adviser may ensure that timely and complete notice of commission proceedings is disseminated to members of the public, he or she shall examine all notices of commission proceedings and shall present to the executive director any recommendations for improving the accuracy and timeliness of such notices.

§ 2556. The Adviser's Duties in Advising Members of the Public.

The adviser shall be available to any member of the public with an interest in participating in the commission's proceedings. In advising members of the public on effective means of participating in the commission's proceedings, the adviser shall render his or her independent advice to a member of the public that in the adviser's view will provide the most effective participation of that member. Specifically, the adviser shall:

(a) Respond to all inquiries he or she receives from members of the public for information on the commission's agenda and opportunity for participation in the commission's proceedings.

(b) Respond to all inquiries from members of the public seeking advice on how to participate in the commission's proceedings.

(c) Establish rosters of members of the public who have an interest in the commission's proceedings.

(d) Advise members of the public regarding when an attorney, expert witness, or other professional assistance will be necessary or helpful to their participation.

(e) Upon request, assist members of the public in obtaining access to the public records of the commission, following the procedures established by appropriate regulations.

(f) Refer members of the public to commission staff who can best respond to the inquiries of those members.

(g) Organize the appearances of public participants in the public meetings and hearings of the commission, and formally introduce public participants to the commission.

(h) Suggest consolidation and coordination between and among members of the public with similar interests or views.

(i) Solicit the participation of members of the public whose participation the adviser deems necessary or desirable to complete the record in matters before the commission.

(j) Upon the request of public participants who may be absent from the commission's place of business or proceedings when a matter of interest to them is being considered, neutrally and publicly relate those participants' points to the commission.

(k) When necessary and desirable, guide public participants in their oral presentation to elicit or emphasize the participants' main points.

§ 2557. Additional Duties.

The adviser shall perform such additional duties consistent with Division 15 of the Public Resources Code and these regulations, that the commission may from time to time assign.

Article 4. Requests for Qualifications in the Selection of Professional Services Firms

§ 2560. Definitions.

(a) "Architectural, landscape architectural, engineering, environmental, and land surveying services," and "construction project management" have the respective meanings set forth in Government Code section 4525.

(b) "Commission" means the State Energy Resources Conservation and Development Commission or the Commission's designee authorized to negotiate or contract for architectural, engineering, environmental services, and surveying, or construction project management.

(c) "Firm" has the meaning set forth for that term in section 4525 of the Government Code.

(d) "Small Business Firm" has the meaning set forth in section 14837(c) of the Government Code.

Note: Authority cited: Sections 25213, 25218(b) and 25218(e), Public Resources Code. Reference: Section 25216(c), Public Resources Code; and Sections 4525, 4526, 4526.5, 4527, 4528, 4529 and 4529.5, Government Code.

§ 2561. Publication of Announcement.

(a) The Commission shall publish, either electronically or in print, an announcement for expected architectural, engineering, environmental, land surveying, or construction project management services in the State Contracts Register and, when applicable, in a statewide publication of an appropriate professional society.

(b) The announcement shall include, but not be limited to, the following information: a contract identification number; a brief description of services required; location, and duration; submittal requirements and deadlines; name and telephone number of Commission contact for questions on the publication and for information about receiving the detailed request for qualifications.

(c) Failure of a professional publication to publish, or error by a professional publication in publishing an announcement shall not invalidate that announcement. In such a circumstance, the Commission may extend the announcement deadlines to allow further publication of the announcement.

Note: Authority cited: Sections 25213, 25218(b) and 25218(e), Public Resources Code. Reference: Section 25216(c), Public Resources Code; and Sections 4525, 4526, 4526.5, 4527, 4528, 4529 and 4529.5, Government Code.

§ 2562. Request for Qualifications.

The Commission's request for qualifications shall utilize criteria for each proposed contract which will comprise the basis for the selection and ranking of eligible firms to perform the required services. The criteria shall include, but not be limited to, such factors as professional excellence, demonstrated competence, specialized experience of the firm, education and experience of key personnel, required qualifications, staff capability, workload, ability to meet schedules, principals to be assigned, nature and quality of completed work, reliability and continuity of the firm, location, professional awards and other considerations deemed relevant by the Commission. Such factors shall be weighed by the Commission according to the nature of the project, the needs of the State, and the complexity and special requirements of the specific project.

Note: Authority cited: Sections 25213, 25218(b) and 25218(e), Public Resources Code. Reference: Section 25216(c), Public Resources Code; and Sections 4525, 4526, 4526.5, 4527, 4528, 4529 and 4529.5, Government Code.

§ 2563. Selection of Services.

After expiration of the period stated in the announcement, the Commission shall evaluate responding eligible firms' statements of qualifications based on the established selection criteria. The Commission shall conduct discussions with no less than three firms regarding qualifications and methods for furnishing the required services. From the firms with which discussions are held,

the Commission shall select no less than three firms, in order of preference, based upon the established criteria, who are deemed to be the most highly qualified to provide the required services. If a Request for Qualifications results in submissions by less than three qualified firms, the Commission may, at its option, discontinue the selection process, extend the selection process and provide supplemental notice to attract additional firms, or continue the selection process with the submissions received.

Note: Authority cited: Sections 25213, 25218(b) and 25218(e), Public Resources Code. Reference: Section 25216(c), Public Resources Code; and Sections 4525, 4526, 4526.5, 4527, 4528, 4529 and 4529.5, Government Code.

§ 2564. Estimate of Value of Services.

Before conducting discussions with any firm concerning fees, the Commission shall cause an estimate of the value of such services to be prepared. This estimate shall serve as a guide in evaluating fair and reasonable compensation during negotiations. At any time the Commission determines its estimate to be unrealistic due to changing market costs, special conditions, or other relevant considerations, the estimate shall be reevaluated and modified as necessary. The Commission's estimate shall remain confidential until the award of contract or abandonment of any further procedure for the services to which it relates.

Note: Authority cited: Sections 25213, 25218(b) and 25218(e), Public Resources Code. Reference: Section 25216(c), Public Resources Code; and Sections 4525, 4526, 4526.5, 4527, 4528, 4529 and 4529.5, Government Code.

§ 2565. Negotiation.

The Commission, in compliance with Public Contract Code section 6106, shall attempt to negotiate an agreement with the most highly qualified firm. Should the Commission be unable to negotiate a satisfactory contract with the firm considered to be the most qualified at fair and reasonable compensation, negotiations with that firm shall be terminated. The Commission shall then undertake negotiations with the second most qualified firm. Failing accord, negotiations shall be terminated. The Commission shall then undertake negotiations with the third most qualified firm. Failing accord, negotiations shall be terminated. Should the Commission be unable to negotiate a satisfactory contract with any of the first three selected firms, the Commission may select additional firms in the manner described and continue the negotiation procedure or may terminate the negotiation process. The Commission may at any point reopen previously terminated negotiations with a firm.

Note: Authority cited: Sections 25213, 25218(b) and 25218(e), Public Resources Code. Reference: Section 25216(c), Public Resources Code; and Sections 4525, 4526, 4526.5, 4527, 4528, 4529 and 4529.5, Government Code.

§ 2566. Contract Agreement.

(a) After successful negotiations, the Commission and the selected firm shall complete and sign a written contract agreement.

(b) In instances where the Commission effects a necessary change during the course of performance of a contract, the firm's compensation may be adjusted by mutual written agreement in a reasonable amount where the work to be performed by the firm is changed from that previously specified in the contract.

Note: Authority cited: Sections 25213, 25218(b) and 25218(e), Public Resources Code. Reference: Section 25216(c), Public Resources Code; and Sections 4525, 4526, 4526.5, 4527, 4528, 4529 and 4529.5, Government Code.

§ 2567. Contracting in Phases.

Should the Commission determine that it is necessary or desirable that a given project be performed in phases, it will not be necessary to negotiate the total contract price in advance. The Commission shall then contract with the firm it determines is best qualified to perform the whole project at reasonable cost. Such a contract shall contain provisions specifying that the Commission may utilize the firm for other phases and that the firm will accept a fair and reasonable price for subsequent phases to be later negotiated, mutually agreed upon and reflected in a subsequent written instrument. The procedure with regard to estimates and negotiation shall otherwise be applicable.

Note: Authority cited: Sections 25213, 25218(b) and 25218(e), Public Resources Code. Reference: Section 25216(c), Public Resources Code; and Sections 4525, 4526, 4526.5, 4527, 4528, 4529 and 4529.5, Government Code.

§ 2568. Small Business Participants.

The Commission shall endeavor to provide to all small business firms who have indicated an interest in receiving such, a copy of each announcement within the scope of their request. A failure of the Commission to send a copy of an announcement to any firm shall not operate to invalidate any contract.

Note: Authority cited: Sections 25213, 25218(b) and 25218(e), Public Resources Code. Reference: Section 25216(c), Public Resources Code; and Sections 4525, 4526, 4526.5, 4527, 4528, 4529 and 4529.5, Government Code.

§ 2569. Conflict of Interest and Unlawful Activities.

As provided in Government Code section 87100, no Commission employee may participate in the selection process if the employee has a financial interest in any firm seeking a contract subject to this article is related to any person seeking a contract subject to this article.

Any Commission employee who does participate in the selection process and any firm seeking a contract under this article are prohibited from offering, soliciting, or accepting gifts, services, goods, loans, rebates or payments of any kind (such as kickbacks) to or from one another. Except as provided by the terms of the contract, this prohibition extends both to any Commission employee who manages a contract awarded under this article or reviews or approves contractor work products under the contract and to the contracting firm.

Note: Authority cited: Sections 25213, 25218(b) and 25218(e), Public Resources Code. Reference: Section 25216(c), Public Resources Code; and Sections 4525, 4526, 4526.5, 4527, 4528, 4529 and 4529.5, Government Code.

Chapter 9. Solar Energy

Article 1. Solar Offset Program

§ 2700. Scope.

These regulations establish the Homebuyer Solar Option and the Solar Offset Program pursuant to Public Resources Code Section 25405.5. These regulations apply to the developer/seller of production homes and include procedures which a developer/seller shall utilize when determining their selected compliance path.

A seller of production homes shall offer a solar energy system option to all prospective home buyers that enter into negotiations to purchase a new production home constructed on land for which an application for a tentative subdivision map has been deemed complete on or after January 1, 2011.

A developer/seller of production homes who does not participate in the Homebuyer Solar Option program shall install an offset solar energy system, generating specified amounts of electricity, on another project.

Note: Authority cited: Sections 25213, 25218(e), 25218.5, 25405.5(b) and 25405.5(c), Public Resources Code. Reference: Sections 25405.5(b) and 25405.5(c), Public Resources Code.

§ 2701. Definitions.

For the purpose of these regulations, the following definitions shall apply:

(a) *AC* means alternating current.

(b) *Banking* means the accumulation of expected annual time dependent valuation (TDV) energy from offset solar energy system(s) for future use in the solar offset program.

(c) *Building Energy Efficiency Standards for Residential and Nonresidential Buildings* means the California Building Energy Efficiency Standards as set forth in the California Code of Regulations, Title 24, Part 6.

(d) *Climate Zone* means the 16 geographic areas of California for which the Energy Commission has established typical weather data, prescriptive packages and energy budgets. The Energy Commission climate zone map is located at:
www.energy.ca.gov/maps/building_climate_zones.html

(e) *Development* - this article uses the definition of “Development” provided in California Government Code Section 66418.1.

(f) *Energy Commission* means the State of California Energy Resources Conservation and Development Commission, commonly known as the California Energy Commission.

(g) *IOU* means investor-owned utility.

(h) *kW* means kilowatt or 1,000 watts, as measured from the alternating current side of the solar energy system inverter consistent with Section 223 of Title 15 of the United States Code.

(i) *MW* means megawatt or 1,000,000 watts.

(j) *Minimal Shading* means that no existing shading obstructions or planned or potential shading obstructions (i.e. such items that are shown on builder's building or landscaping plans but not yet installed or planted) are closer than a distance of twice the height that the obstruction extends above the nearest point on the PV array. Any obstruction that projects above the point on the PV array that is closest to the obstruction shall meet this criterion for the PV array to be considered minimally shaded.

(k) *New Solar Homes Partnership (NSHP)* means the part of the comprehensive statewide solar program, known as the California Solar Initiative, that is applicable to new residential construction in the utility territories of Pacific Gas and Electric (PG&E), Southern California Edison (SCE), San Diego Gas & Electric (SDG&E), and Golden State Water Company (doing business as Bear Valley Electric Service). The NSHP provides financial incentives and other support to home builders to encourage the construction of new, energy-efficient solar homes.

(l) *Offset Solar Energy System* means a solar energy system that is used to meet the requirements of the Solar Offset Program.

(m) *Phased Final Map* means a Final Map that was filed pursuant to California Government Code Section 66456.1 that covers only a portion or phase of the total area encompassed by a Tentative Subdivision Map for which an application has been deemed complete on or after January 1, 2011.

(n) *POU* means publicly-owned utility.

(o) *Production Home* means a single-family residence constructed as part of a development of at least 50 homes per project that is intended or offered for sale. To determine whether there is a “development of at least 50 homes per project”:

(1) The number of planned homes identified on a Tentative Subdivision Map for which an application has been deemed complete on or after January 1, 2011, will be aggregated with the number of additional homes identified on any Phased Final Maps that are subsequently filed which cover only a portion or phase of the total area encompassed by the Tentative Subdivision Map.

(2) Under no circumstances will Tentative Subdivision Maps deemed complete prior to January 1, 2011, or Phased Final Maps that were filed prior to January 1, 2011, be considered in this determination.

(p) *PV* means flat-plate non-concentrating photovoltaic modules.

(q) *Reference Solar Energy System* means a fictitious solar energy system that is used for calculating expected annual TDV energy equivalency for the Solar Offset Program.

(r) *Single-Family Residence* - means “Detached Single-Family Dwelling,” as defined in the California Building Code, Title 24, Part 2, Section 202.

(s) *Solar Energy System* means a solar energy device that has the primary purpose of providing for the collection and distribution of solar energy for the generation of electricity that produces at least 1 kW, and not more than 5 MW, alternating current rated peak electricity, and that meets or exceeds the following:

(1) All components in the solar energy system are new and unused, and have not previously been placed in service in any other location or for any other application;

(2) The solar energy system is connected to the electrical corporation's electrical distribution system within the state;

(3) The solar energy system has meters or other devices in place to monitor and measure the system's performance and the quantity of electricity generated by the system; and

(4) The solar energy system is installed in conformance with the manufacturer's specifications and in compliance with all applicable electrical and building code standards.

(t) *Solar Offset Program Calculator* means a calculator based on the California Energy Commission Photovoltaic (CECPV) model. This calculator incorporates detailed inverter performance modeling and uses weather data from the 16 climate zones in California. The calculator allows a user to select photovoltaic modules and inverters from a library of eligible equipment and generate the estimated monthly kWh production and annual TDV (kWh) production for a specified solar energy system. The Solar Offset Program Calculator, Version 1.0, which is hereby incorporated by reference, is located at: www.energy.ca.gov/2010-SOPR-1/documents/index.html .

(u) *Subdivision* - this article uses the definition of “Subdivision” provided in California Government Code Section 66424.

(v) *Tentative Subdivision Map* means a Tentative Subdivision Map for which an application has been deemed complete on or after January 1, 2011.

(w) *Time-Dependent Valuation (TDV) Energy* means the time varying energy caused to be used by the building to provide space conditioning and water heating and for specified buildings lighting. TDV energy accounts for the energy used at the building site and consumed in producing and delivering energy to a site, including, but not limited to, power generation, transmission and distribution losses.

Note: Authority cited: Sections 25213, 25218(e), 25218.5, 25405.5(a) and 25405.5(b), Public Resources Code. Reference: Sections 25405.5(a) and 25405.5(b), Public Resources Code.

§ 2702. Homebuyer Solar Option.

(a) Disclosure to Prospective Home Buyer. A seller of production homes offering solar as an option shall provide the following information to the prospective home buyer:

(1) Total installed cost of the solar energy system option;

(2) Estimated cost savings associated with the solar energy system option as shown in Table 1:

(A) The figures in Table 1 represent a range of expected annual kWh generation and estimated annual dollar savings from a 1 kW solar energy system as calculated by the California Energy Commission. A seller of production homes offering solar as an option shall provide the relevant information from Table 1 to the prospective home buyer.

(3) Information about California solar energy system incentives; and

(4) Information about the Go Solar California website.

Table 1:
Estimated Annual kWh Generation and Dollar Savings of a 1 kW
Solar Energy Generation System

Climate Zone	*Estimated Annual kWh/kWstc Generation*	*Estimated Annual Dollar Savings at Various Utility Electric Energy Rates*				
		$0.10/kWh	*$0.15/kWh*	*$0.20/kWh*	*$0.25/kWh*	*$0.30/kWh*
CZ01	1220–1475	$122–$148	$183–$221	$244–$295	$305–$369	$366–$443
CZ02	1420–1660	$142–$166	$213–$249	$284–$332	$355–$415	$426–$498
CZ03	1515–1885	$152–$189	$227–$283	$303–$377	$379–$471	$455–$566
CZ04	1560–1920	$156–$192	$234–$288	$312–$384	$390–$480	$468–$576
CZ05	1570–1965	$157–$197	$236–$295	$314–$393	$393–$491	$471–$590
CZ06	1590–1980	$159–$198	$239–$297	$318–$396	$398–$495	$477–$594
CZ07	1545–1940	$155–$194	$232–$291	$309–$388	$386–$485	$464–$582
CZ08	1565–1965	$157–$197	$235–$295	$313–$393	$391–$491	$470–$590
CZ09	1570–1870	$157–$187	$236–$281	$314–$374	$393–$468	$471–$561
CZ10	1560–1880	$156–$188	$234–$282	$312–$376	$390–$470	$468–$564
CZ11	1595–1905	$160–$191	$239–$286	$319–$381	$399–$476	$479–$572
CZ12	1670–1975	$167–$198	$251–$296	$334–$395	$418–$494	$501–$593
CZ13	1705–2000	$171–$200	$256–$300	$341–$400	$426–$500	$512–$600
CZ14	1790–2140	$179–$214	$269–$321	$358–$428	$448–$535	$537–$642
CZ15	1755–2085	$176–$209	$263–$313	$351–$417	$439–$521	$527–$626
CZ16	1560–1860	$156–$186	$234–$279	$312–$372	$390–$465	$468–$558

Note: The estimated annual kWh/kWstc generation values are from calculations using the Solar Offset Program Calculator, which is based on the California Energy Commission Photovoltaic (CECPV) model. The actual performance of a solar energy system will be based on numerous factors, including but not limited to, the available solar insolation at the specific geographic location, the azimuth and tilt of the solar energy system, shading conditions at the specific location, and system loss factors. The estimated annual dollar savings are based on a flat utility electric energy rate rather than a tiered rate. The actual dollar savings will be based on the utility electric energy rate structure, the overall electricity consumption of the home, and the amount of energy produced by the solar energy system. The values in the table should not be interpreted as a guarantee of solar energy system performance nor should the values be used as the sole basis for purchasing a solar energy system. Prospective home buyers interested in purchasing a solar energy system are encouraged to obtain a site specific estimate of annual energy generation and dollar savings. Prospective home buyers are encouraged to visit the Go Solar California website: www.gosolarcalifornia.org/tools/calculators.php, to view a number of online calculators that have been developed to help make a decision on going solar.
The Energy Commission climate zone map is located at:
www.energy.ca.gov/maps/building_climate_zones.html

(b) Reporting Requirements. A seller of production homes who elects to offer solar as an option to prospective home buyers shall report the following information to the Energy Commission on an annual basis:

(1) Legal description of the proposed subdivision identified on the Tentative Subdivision Map and, where applicable, the legal description of the portion or phase of the total area encompassed by the Tentative Subdivision Map that is covered by any Phased Final Map(s);

(2) Total number of planned homes identified on the Tentative Subdivision Map and, where applicable, the total number of planned homes identified on the portion or phase of the total area encompassed by the Tentative Subdivision Map that is covered by any Phased Final Map(s);

(3) Utility territory of development;

(4) Number of homes sold in the development in the reported year;

(5) Number of homes where the solar option was installed in the reported year;

(6) Average capacity (in AC kW) and average total installed cost of solar energy system option installed in the reported year; and

(7) If any solar energy systems installed in the reported year received an incentive, provide information about the incentive program(s), number of solar energy systems that received an incentive, and average dollar amount of incentive.

(c) Verification of Compliance. Sellers shall report this information to the Energy Commission by May 1 of each year for the previous calendar year. Information reported to the Energy Commission may be made available to the public.

(1) The reported information shall be endorsed by a principal or corporate officer of the seller's company under penalty of perjury; and

(2) The “solar as an option” disclosure shall be made available to prospective home buyers at the sales office and on the seller's website. The Energy Commission reserves the right to review the solar as an option materials disclosed to the prospective home buyer.

Note: Authority cited: Sections 25213, 25218(e), 25218.5, 25405.5(b) and 25783(b), Public Resources Code. Reference: Sections 25405.5(b) and 25783(b), Public Resources Code.

§ 2703. Requirements for Solar Offset Program.

(a) Solar Offset Program Participation. A seller of production homes who does not participate in the Homebuyer Solar Option Program shall participate in the Solar Offset Program by installing an offset solar energy system. The amount of electricity required to be generated by an offset solar energy system shall be equal to the amount of electricity generated by solar energy systems installed on a similarly sized project within the climate zone of the proposed subdivision to be offset, assuming 20 percent of prospective home buyers would have installed solar energy systems. To determine the number of homes to use for offset purposes:

(1) The seller shall assume that “20 percent of prospective homebuyers” of planned homes identified on the Tentative Subdivision Map “would have installed solar energy systems”;

(2) If the Tentative Subdivision Map identifies less than 50 planned homes and the seller intends to file multiple Phased Final Maps, the number of homes identified on the Tentative Subdivision Map will be aggregated with the number of additional homes identified on any Phased Final Map(s);

(3) If the aggregate number of planned homes identified in the Tentative Subdivision Map and Phased Final Map(s) exceeds 50, then the number of additional homes identified on any subsequently filed Phased Final Map(s) will not be aggregated with the number of homes identified in the Tentative Subdivision Map or any previously filed Phased Final Map(s).

(b) Required TDV Energy Equivalency. The electricity equivalency shall be calculated using TDV energy. The required TDV Energy Equivalency for the proposed subdivision being offset shall be based on the assumption that a reference solar energy system would have been installed by prospective home buyers had the proposed subdivision participated in the homebuyer solar option program. The requirements for the reference solar energy system are described in Section 2703 (d) of this article.

(c) Offset Solar Energy System. Offset solar energy systems shall meet the following requirements:

(1) Solar Energy System. Only solar energy systems composed of PV modules are eligible for the Solar Offset Program.

(2) Interconnection Date. Only solar energy systems interconnected to the utility grid on or after July 1, 2010, are eligible for the Solar Offset Program.

(3) Location. The offset solar energy system must be located within the same utility territory as the proposed subdivision being offset.

(4) Maximum Capacity. The maximum capacity (in kW AC) of an offset solar energy system shall not exceed 5 MW.

(5) Expected TDV Energy Calculation. The expected annual TDV energy of an offset solar energy system shall be calculated by the Solar Offset Program Calculator version 1.0, and shall be equal to or greater than the required TDV energy equivalency of the proposed subdivision being offset.

(6) Major Solar Energy System Components. All major solar energy system components shall be included on the Energy Commission's Eligible Equipment Lists. This includes PV modules, inverters, and meters.

(7) Field Verification. The offset solar energy system shall successfully complete third-party field verification using the protocol described in Appendix 2 of the *Guidelines for California's Solar Electric Incentive Programs (Senate Bill 1) Third Edition*, June 2010, Energy Commission Publication number CEC-300-2010-004-CMF, which is hereby incorporated by reference.

(8) Initial Reporting. Within 60 days of the adoption of these regulations, or interconnection of the offset solar energy system to the utility grid, whichever is later, the developer/seller shall provide the following information to the Energy Commission:

(A) Written proof from utility of interconnection of the offset solar energy system to the utility's grid;

(B) Date of interconnection;

(C) Expected TDV energy calculation, for the offset solar energy system, as calculated by the Solar Offset Program Calculator version 1.0; and

(D) An executed written agreement by the developer/seller and the system owner identifying a specific PV system to be used for the Solar Offset Program. This written agreement shall include:

1. Address location of the offset solar energy system;

2. Total dollar amount the developer/seller contributed towards the installation of the offset solar energy system;

3. Total installed cost of the offset solar energy system.

(E) The information reported to the Energy Commission may be made available to the public.

(9) Partial Funding of Offset Solar Energy System. If the developer/seller pays for less than the total cost of a PV system to be used as an offset solar energy system, the developer/seller shall only be eligible to claim a fraction of the total annual expected TDV energy of the PV system as an offset credit. In this circumstance, the fraction of the total annual expected TDV energy eligible to be claimed as an offset solar energy system shall be equal to the fraction of the total cost of the PV system paid by the developer/seller.

(10) Use of Offset Solar Energy System to Offset a Future Subdivision(s). An offset solar energy system may be used to offset multiple subdivisions, including, but not limited to, subdivisions at different locations, in accordance with Section 2703(e) of this article.

(d) Reference Solar Energy System. The reference solar energy system shall be based on the NSHP California Flexible Installation criteria which consists of the following:

(1) Capacity. Capacity shall be 2 kW AC.

(2) Installation Characteristics. The installation characteristics shall be based on the NSHP California Flexible Installation criteria which consist of the following:

(A) True azimuth of 170 degrees, assuming true north is zero degrees;

(B) Tilt of 22.6 degrees, equivalent to a 5:12 roof pitch;

(C) Mounting height from ground of 12 feet, equivalent to NSHP “One-Story”;

(D) Fixed PV array; and

(E) Minimal shading.

(3) PV Modules. The reference solar energy system shall be composed of the most commonly used PV module in NSHP as of June 28, 2010.

(4) Inverter. The reference solar energy system shall be composed of the most commonly used inverter in NSHP as of June 28, 2010.

(5) Expected Annual TDV Energy Calculation. For each climate zone, the expected annual TDV energy of the reference solar energy system, as calculated by the Solar Offset System Program Calculator version 1.0, is shown in Table 2.

(A) Per-home TDV Energy Equivalency. The expected annual TDV energy in Table 2 represents the required TDV energy equivalency per home by climate zone in accordance with the Energy Commission climate zone map located at:

www.energy.ca.gov/maps/building_climate_zones.html; and

(B) Developers shall multiply the number of homes they are intending to offset by the appropriate TDV energy value, depending on the climate zone in which the proposed subdivision is located. The resulting value is the required TDV energy equivalency for the proposed subdivision being offset as specified in Section 2703 (b) of this article.

Table 2: Expected Annual TDV Energy of Reference Solar Energy System

Climate Zone	*Expected Annual kWh*	*Expected Annual TDV Energy*
CZ01	2927	43596
CZ02	3303	48686
CZ03	3735	52314
CZ04	3809	54135
CZ05	3887	54289
CZ06	3921	55388
CZ07	3837	61446
CZ08	3883	54577
CZ09	3723	52270
CZ10	3737	52572
CZ11	3802	56055
CZ12	3942	56627
CZ13	3987	53539
CZ14	4262	57345
CZ15	4164	55408
CZ16	3712	55960

Notes:

1. AC rating as calculated: 2.071760 kW, figures in table are scaled to 2 kW AC.

2. Calculations performed with Solar Offset Program Calculator version 1.0.

3. Calculated solar energy system composed of the most commonly used PV module and inverter in NSHP as of June 28, 2010.

4. TDV multipliers from the 2008 Building Energy Efficiency Standards for Residential and Nonresidential Buildings.

(e) Solar Offset Bank. The Energy Commission shall manage the Solar Offset Bank which allows participants in the solar offset program to aggregate their offset solar energy systems and apply those systems to multiple subdivisions, including, but not limited to, subdivisions at different locations.

(1) Eligibility. Any offset solar energy system that satisfies the requirements of Section 2703(b) of this article shall be eligible to be used in the Solar Offset Bank.

(2) Deposits Into the Solar Offset Bank. A developer/seller shall notify the Energy Commission in writing if they wish to enter an offset solar energy system into the Solar Offset Bank by reporting the following information:

(A) Name of Developer/Seller;

(B) Capacity of Offset Solar Energy System (in kW AC);

(C) Expected Annual TDV Energy from Offset Solar Energy System;

(D) City/Location of Offset Solar Energy System;

(E) Utility Territory of Offset Solar Energy System; and

(F) Interconnection Date of Offset Solar Energy System.

(3) Withdrawals From the Solar Offset Bank. A developer/seller shall report the following information to the Energy Commission when they wish to apply an offset to a proposed subdivision and make a withdrawal from the Solar Offset Bank:

(A) Legal description of the proposed subdivision(s) being offset, and, where applicable, legal description(s) of the portion(s) or phase(s) of the total area encompassed by a Tentative Subdivision Map(s) that is covered by any Phased Final Map(s);

(B) Date Offset System was Applied to Proposed Subdivision(s);

(C) Total number of homes in proposed subdivision(s), that are being offset; and, where applicable, the total number of planned homes identified on the portion(s) or phase(s) of the total area encompassed by a Tentative Subdivision Map(s) that is covered by any Phased Final Map(s);

(D) Number of Homes Being Offset (20% of Homes in the Proposed Subdivision); and,

(E) Climate Zone of Subdivision Being Offset.

(4) Calculating Balance. After each request from a developer/seller, the Energy Commission shall report the following information in writing to the developer/seller:

(A) Required TDV Energy Equivalency per Home for the Proposed Subdivision Being Offset;

(B) Required TDV Energy Equivalency for the Proposed Subdivision Being Offset; and

(C) Balance (Expected Annual TDV Energy).

(f) Annual Reporting. If there is a positive expected annual TDV energy balance for an offset solar energy system, the developer/seller shall report to the Energy Commission by May 1 of each year the kilowatt-hour generation of the offset solar energy system for the prior calendar year. Information reported to the Energy Commission may be made available to the public.
Note: Authority cited: Sections 25213, 25218(e), 25218.5 and 25405.5, Public Resources Code. Reference: Section 25405.5, Public Resources Code.

§ 2704. Future Ordinances Requiring Solar.

(a) In the event that any California city, county, or other governing political subdivision, requires the installation of solar energy systems on production homes at a future date, such a requirement shall supersede the provisions of this article.

Note: Authority cited: Sections 25213, 25218(e), 25218.5 and 25405.5, Public Resources Code. Reference: Section 25405.5, Public Resources Code.

Chapter 10. Approval of Technical Assistance Providers and Certifiers

Article 1. General Provisions

§ 2800. Purpose of Regulations.

This chapter specifies the criteria and procedures to be followed by the State Energy Resources Conservation and Development Commission in administering the Qualification Program for Certifiers and Technical Assistance Providers under Section 42870 of the Health and Safety Code.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 42870, Health and Safety Code. Reference: Section 42870, Health and Safety Code.

§ 2801. Definitions.

In this chapter, unless otherwise indicated, the definitions found in Health and Safety Code section 42801. 1 and the following definitions apply:

(a) "Applicant" means a person submitting an application in response an RFA.

(b) "Applicant Team" means an applicant and all of the applicant's partners designated in one application.

(c) "Certifier" means a person approved by the State as qualified under these regulations to certify the emissions results of Registry Participants.

(d) "Certification Services" means any services performed in the course of determining whether a Registry Participant's greenhouse gas emissions inventory has met a minimum quality standard and complied with registry-approved procedures and protocols for submitting emissions inventory information.

(e) "Commission" means the California State Energy Resources Conservation and Development Commission.

(f) "Firm" means any individual, association, partnership, trust, corporation, company, or other organization.

(g) "General Certifier" means a certifier who certifies greenhouse gas emissions pursuant to the Registry's General Reporting Protocol.

(h) "Industry-Specific Certifier" means a certifier who certifies greenhouse gas emissions pursuant to any of the Registry's Industry-Specific Reporting Protocols.

(i) "Partner" means a person designated as such in an application for qualification as a Certifier or a person with whom the applicant shares staff or financial capability for the purposes of the application.

(j) "Registry" means the California Climate Action Registry.

(k) "Registry Participant" means a participant in the California Climate Action Registry.

(l) "Registry Service Provider" means a Certifier or Technical Assistance Provider.

(m) "Related Entity" means an organization that is related by ownership to a firm, including, but not limited to, a parent company, a holding company, a subsidiary, and a subsidiary of a parent company.

(n) "RFA" means a Request for Applications.

(o) "Technical Assistance Provider" means a firm approved by the State as qualified under this section to provide technical assistance and advice to Registry Participants.

(p) "Work Product" means any product produced for a client under contract.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 42870, Health and Safety Code. Reference: Section 42870, Health and Safety Code.

Article 2. Applications for Technical Assistance Providers

§ 2810. Information Requirements for Applications for Technical Assistance Providers.

(a) Any firm that provides technical assistance or advice to Registry Participants pursuant to Health and Safety Code section 42800 et seq. may be approved by the State. An application for approval shall contain the following:

(1) A cover page listing the applicant's name and address, contact person, contact e-mail, and contact telephone number.

(2) A one-page description of at least two work products delivered under contract to a client that demonstrate the applicant's mastery of one or more of the following topics:

(A) utilizing engineering principles;

(B) estimating greenhouse gas emissions;

(C) developing and evaluating air emissions inventories;

(D) auditing and accounting principles;

(E) auditing environmental responsibility; or

(F) developing greenhouse gas-related software.

(b) Applications shall not contain any confidential information.

(c) All applications, consisting of one original and three copies, shall be delivered in person, by a messenger service, or through the U.S Mail to the California Energy Commission, Climate Change Program, 1516 Ninth Street, Sacramento, CA, 95814 by the deadline identified in the request for applications. Electronic mail or facsimile transmissions will not be accepted. Unless otherwise stated, all submittals and correspondence relating to Technical Assistance Providers shall also be directed to this address.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 42870, Health and Safety Code. Reference: Section 42870, Health and Safety Code.

§ 2811. Minimum Requirements for Technical Assistance Providers.

An applicant shall have at least two years of greenhouse gas or other air emissions-related experience in one or more of the following topics:

(a) utilizing engineering principles;

(b) estimating greenhouse gas emissions;

(c) developing and evaluating air emissions inventories;

(d) auditing and accounting principles;

(e) auditing environmental responsibility; or

(f) developing greenhouse gas-related software.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 42870, Health and Safety Code. Reference: Section 42870, Health and Safety Code.

Article 3. Applications for General and Industry-Specific Certifiers

§ 2820. Information Requirements for Applications for General and Industry-Specific Certifiers.

(a) Any firm that certifies a Registry Participant's greenhouse gas emissions inventory pursuant to Health and Safety Code 42800 et seq. must be approved by the State. An application for approval shall contain the following:

(1) A copy of an insurance policy showing that the applicant has a minimum of one million U.S. dollars of professional liability insurance. If the insurance is in the name of a related entity, the applicant shall also describe the financial relationship between the applicant and the related entity and provide documentation supporting the description.

2) A one-page description of at least three work products produced within the previous five years. These work products shall have been produced, in part or in whole, by the applicant and shall consist of final reports or other materials provided to clients under contract in previous work. For work products that were jointly produced by the applicant and another entity, the role of the applicant in the work product shall be clearly explained. The work products must demonstrate the applicant's ability to organize and manage a team of technical experts to effectively complete complex work tasks in a timely manner and demonstrate experience in multiple industry sectors for General Certifier applicants, and the relevant industry sector for Industry-Specific Certifier applicants, in each of the following topics:

(A) utilizing engineering principles;

(B) estimating greenhouse gas emissions;

(C) developing and evaluating air emissions inventories; and

(D) auditing and accounting principles.

(3) A cover page listing the applicant's name and address, contact person, contact e-mail, and contact telephone number.

(b) Applications shall not contain any confidential information.

(c) All applications, consisting of one original and six copies, shall be delivered in person, by a messenger service, or through the U.S. Mail to the California Energy Commission, Climate Change Program, 1516 Ninth Street, Sacramento, CA, 95814 by the deadline identified in the request for applications. Electronic mail or facsimile transmissions will not be accepted. Unless otherwise stated, all submittals and correspondence relating to qualifying Certifiers shall also be directed to this address.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 42870, Health and Safety Code. Reference: Section 42870, Health and Safety Code.

§ 2821. Minimum Requirements for General Certifiers.

Any firm who certifies a Registry Participant that falls under the Registry's General Reporting Protocol shall meet the following criteria:

(a) Each applicant shall demonstrate knowledge in each of the following topics:

(1) utilizing engineering principles;

(2) estimating greenhouse gas emissions;

(3) developing and evaluating air emissions inventories;

(4) auditing and accounting principles;

(5) the purpose of the Registry and Registry Protocols; and

(6) knowledge of information management systems.

(b) Each applicant shall have at least two years' experience in certification or verification of greenhouse gas or conducting air emissions inventories.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 42870, Health and Safety Code. Reference: Section 42870, Health and Safety Code.

§ 2822. Minimum Requirements for Industry-Specific Certifiers.

Any applicant for approval to certify an industry-specific Registry Participant shall meet the following criteria:

(a) Each applicant shall meet all of the requirements in section 2821.

(b) Each applicant, or applicant team, shall employ staff with professional licenses, knowledge, and experience appropriate to the specific industry that it seeks to certify.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 42870, Health and Safety Code. Reference: Section 42870, Health and Safety Code.

§ 2823. Partnering.

(a) Additional firms may be used by the applicant to meet any of the criteria identified in Sections 2821 or 2822. These additional firms shall be designated as partners to the applicant.

(b) Each partner shall submit a one-page description of at least one work product. The work product shall have been produced, in part or whole, by the partner and shall consist of a final report or other material provided to clients under contract in previous work. For a work product that was jointly produced by the partner and another entity, the role of the partner in the work product shall be clearly explained. The work product will be taken into consideration when evaluating the sum of experience provided by the applicant team.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 42870, Health and Safety Code. Reference: Section 42870, Health and Safety Code.

Article 4. Procedures for Considering Applications for Technical Assistance Providers, General Certifiers, and Industry-Specific Certifiers

§ 2830. Issuance of Request for Applications.

When issuing a Request for Applications, the Commission shall set a deadline for the submission of applications no less than 30 calendar days after the RFA is issued. All applications must be submitted in response to an RFA and must be submitted by the deadline identified in the RFA.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 42870, Health and Safety Code. Reference: Section 42870, Health and Safety Code.

§ 2831. Review of Applications.

(a) The Commission shall review each application to determine its completeness and compliance with the format requirements. The Commission shall then organize an Evaluation Committee to review and score all applications that are complete and comply with the required format.

(b) The Evaluation Committee shall consist of at least three members with at least one member from the Commission and one member from the Registry. Other members may be from other State agencies that have expertise in certification subject areas, as needed.

(c) In order to qualify, each applicant must achieve a passing score for each pass/fail criteria and must achieve a cumulative score of at least 80 percent for the criteria that are quantitatively scored. The evaluation criteria for applications for Certifiers and Technical Assistance Providers are contained in Appendix A and Appendix B, respectively.

(d) Applications meeting the minimum evaluation criteria shall automatically be approved for recommendation to the Registry's Service Provider approval process. For applications that do not meet the minimum required score the Evaluation Committee may conduct interviews with applicants to clarify the applicant's qualifications. Upon completion of the interviews, the Evaluation Committee may make adjustments to the scores and approve or deny the applications accordingly.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 42870, Health and Safety Code. Reference: Section 42870, Health and Safety Code.

§ 2832. Grounds for Rejection of an Application.

(a) An application may be rejected for any of the following reasons:

(1) it is incomplete or is received after the deadline established for receipt of the application;

(2) it contains false or intentionally misleading statements or references which do not support an attribute or condition contended by the applicant;

(3) it is not prepared using the appropriate forms;

(4) it is unsigned; or

(5) it contains any confidential information.

(b) The Commission may waive any immaterial defect or deviation contained in an application. The Commission's waiver shall in no way modify the application requirements or excuse the applicant from substantial compliance.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 42870, Health and Safety Code. Reference: Section 42870, Health and Safety Code.

§ 2833. Modifying an Application.

An applicant may, by letter to the Commission's Contact Person, modify a submitted application prior to the application submission deadline.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 42870, Health and Safety Code. Reference: Section 42870, Health and Safety Code.

§ 2834. Notification of the Results of the Evaluation.

The Commission shall notify applicants of the results of the evaluation of their applications by mail no later than 30 working days after the deadline for submission. The Commission shall recommend to the Registry for its Service Provider approval process those applicants that pass the Commission's evaluation process.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 42870, Health and Safety Code. Reference: Section 42870, Health and Safety Code.

§ 2835. Appeal of Determination.

If an application receives a failing score in the evaluation process, an applicant may dispute the evaluation by first filing an appeal with the Evaluation Committee within 30 days of receiving the results of the evaluation. The appeal shall consist of written statements explaining how the application meets the criteria and minimum score required. The Evaluation Committee shall grant or deny the appeal within 10 working days. If the applicant is not satisfied with the Evaluation Committee's response, the applicant may file a subsequent appeal with the Commission's Transportation Committee within 10 days of the Evaluation Committee's determination. The Transportation Committee shall consult with the Registry President and issue a decision on the appeal within 30 working days of receipt of the appeal.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 42870, Health and Safety Code. Reference: Section 42870, Health and Safety Code.

§ 2836. Document Disposition.

(a) On the submission date, all applications and related material submitted in response to an RFA become the property of the State and public record.

(b) At the conclusion of the evaluation, the original application will be retained in its entirety for at least three years.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 42870, Health and Safety Code. Reference: Section 42870, Health and Safety Code.

Article 5. Post-Qualification Changes and Submittal Requirements

§ 2840. Renewal of Approval.

Approval to act as a Registry Service Provider shall expire three years from the date of the notice of approval issued pursuant to section 2834, after which time the Registry Service Provider must re-apply pursuant to Section 2810 or 2820, as appropriate, to maintain approval.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 42870, Health and Safety Code. Reference: Section 42870, Health and Safety Code.

§ 2841. Rescission of Approval.

The Commission, in consultation with the Registry, may rescind the approval of a Registry Service Provider for any of the following reasons:

(a) the Registry Service Provider is no longer qualified due to changes in staffing or other criteria;

(b) the Certifier has not complied with the Registry's certification and certifier policies; or

(c) the Registry Service Provider is guilty of:

(1) gross negligence;

(2) inexcusable neglect of duty;

(3) intentional misrepresentation of data or other intentional fraud; or

(4) a felony or misdemeanor involving certification services or moral turpitude.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 42870, Health and Safety Code. Reference: Section 42870, Health and Safety Code.

§ 2842. Commission Visits to Registry Participants' Sites.

(a) Prior to any site visit the Commission shall inform the Certifier and Registry Participant in writing of the Commission's intent to make a site visit. At the Commission's request, the Registry Participant shall provide to the Commission prior to a site visit any information provided to the Certifier for the purposes of certification.

(b) During the site visit, the Registry Participant shall provide the Commission or the Commission's contractor with documentation sufficient to ascertain whether the Registry Participant has a program consistent with Registry protocols and the reasonableness of the emissions information being reported for a sample of estimates or calculations. This documentation may include the following:

(1) facility, emission source, stationary source, mobile source, and fuel inventories;

(2) organization chart, greenhouse gas management plan, documentation and retention plan;

(3) training manual, procedures manual, consultant qualifications statement;

(4) any protocols used in addition to Registry protocols;

(5) monthly electric utility bills, and emission factors of electricity use, if not a default factor;

(6) fuel purchase records, fuel in stock, vehicle miles traveled, inventory of vehicles, and emission factors of mobile combustion, if not a default factor;

(7) monthly utility bills from stationary combustion, fuel purchase records, inventory of stationary combustion facilities, and emission factors of stationary combustion, if not a default factor;

(8) monthly utility bills, fuel and efficiency data from supplier, and emission factors, if not a default factor, for each of the following:

(A) cogeneration;

(B) imported steam;

(C) district heating;

(D) district cooling; and

(E) process activities;

(9) refrigerant purchase records, refrigerant sales records, calculation methodology, and emission factors;

(10) waste-in-place data, waste landfilled, calculation methodology, and emission factors;

(11) coal production data submitted to the Energy Information Administration, calculation methodology, and emission factors;

(12) gas throughput data, calculation methodology, and emission factors; and

(13) sulfur hexafluoride purchase records, calculation methodology, and emission factors.

(c) If, as a result of a site visit, the Commission determines that a Registry Participant does not have a program for reporting greenhouse gases consistent with Registry protocols or that the Participant's reported data is not reasonable, then the Commission shall recommend to the Registry to not certify the Participant's data.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 42870, Health and Safety Code. Reference: Section 42870, Health and Safety Code.

Chapter 11. Greenhouse Gases Emission Performance Standard

Article 1. Provisions Applicable to Powerplants 10 MW and Larger

§ 2900. Scope.

This Article applies to covered procurements entered into by local publicly owned electric utilities. The greenhouse gases emission performance standard established in section 2902(a) applies to any baseload generation, regardless of capacity, supplied under a covered procurement. The provisions requiring local publicly owned electric utilities to report covered procurements, including Sections 2908, 2909, and 2910, apply only to covered procurements involving powerplants 10MW and larger.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 8341, Public Utilities Code. Reference: Sections 8340 and 8341, Public Utilities Code.

§ 2901. Definitions.

(a) "Annualized plant capacity factor" means the ratio of the annual amount of electricity produced, measured in kilowatt hours, divided by the annual amount of electricity the powerplant could have produced if it had been operated at its maximum permitted capacity during all hours of the year, expressed in kilowatt hours.

(b) "Baseload generation" means electricity generation from a powerplant that is designed and intended to provide electricity at an annualized plant capacity factor of at least 60 percent.

(c) “Combined-cycle natural gas" means a powerplant that employs a combination of one or more natural gas turbines and one or more steam turbines in which electricity is produced in the steam turbine from otherwise lost waste heat exiting from one or more of the gas turbines.

(d) "Covered procurement" means:

(1) A new ownership investment in a baseload generation powerplant, or

(2) A new or renewed contract commitment, including a lease, for the procurement of electricity with a term of five years or greater by a local publicly owned electric utility with:

(A) a baseload generation powerplant, unless the powerplant is deemed compliant, or

(B) any generating units added to a deemed-compliant baseload generation powerplant that combined result in an increase of 50 MW or more to the powerplant's rated capacity.

(e) "Deemed-compliant powerplant" means any combined cycle natural gas powerplant that was in operation, or for which the Commission had granted a certificate pursuant to Chapter 6 of the Warren-Alquist State Energy Resources Conservation and Development Act on or before June 30, 2007.

(f) "Dispatchable renewable resource" means any renewable resource that is not an intermittent renewable resource.

(g) "Generating unit" means any combination of physically connected generator(s), reactor(s), boiler(s), combustion turbine(s), or other prime mover(s) operated together to produce electric power.

(h) "Intermittent renewable resource" means a solar, wind, or run-of-river hydroelectricity powerplant.

(i) "Local publicly owned electric utility" means a "local publicly owned electric utility" as defined in Public Utilities Code Section 9604.

(j) "New ownership investment" means:

(1) Any investments in construction of a new powerplant;

(2) The acquisition of a new or additional ownership interest in an existing non-deemed compliant powerplant previously owned by others;

(3) Any investment in generating units added to a deemed-compliant powerplant, if such generating units result in an increase of 50 MW or more to the powerplant's rated capacity; or

(4) Any investment in an existing, non-deemed compliant powerplant owned in whole or part by a local publicly owned electric utility that:

(A) is designed and intended to extend the life of one or more generating units by five years or more, not including routine maintenance;

(B) results in an increase in the rated capacity of the powerplant, not including routine maintenance; or

(C) is designed and intended to convert a non-baseload generation powerplant to a baseload generation powerplant.

(k) “Permitted capacity" means the rated capacity of the powerplant unless the maximum output allowed under the operating permit is the effective constraint on the maximum output of the powerplant.

(*l*) "Powerplant" means a facility for the generation of electricity, and is:

(1) a single generating unit; or

(2) multiple generating units that meet the following conditions:

(A) the generating units are co-located;

(B) each generating unit utilizes the same fuel and generation technology; and

(C) one or more of the generating units are operationally dependent on another.

(m) "Rated capacity" means the powerplant's maximum rated output. For combustion or steam generating units, rated capacity means generating capacity and shall be calculated pursuant to Section 2003.

(n) "Specified contract" means a contract that only provides for electricity from one or more identified powerplant(s).

(o) "Unspecified energy" means energy purchased from unspecified resources.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 8341, Public Utilities Code. Reference: Sections 8340 and 8341, Public Utilities Code.

§ 2902. Greenhouse Gases Emission Performance Standard.

(a) The greenhouse gases emission performance standard (EPS) applicable to this chapter is 1100 pounds (0.5 metric tons) of carbon dioxide (CO_2) per megawatt hour (MWh) of electricity.

(b) Unless otherwise specified in this Article, no local publicly owned electric utility shall enter into a covered procurement if greenhouse gases emissions from the powerplant(s) subject to the covered procurement exceed the EPS.

(c) For purposes of applying the EPS to contracts with multiple powerplants, each specified powerplant must be treated individually for the purpose of determining the annualized plant capacity factor and net emissions, and each powerplant must comply with the EPS.

(d) The term of a contract shall be determined by including the length of time from the date of first delivery through the date of last delivery, even if there are intervening periods during which there are no deliveries.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 8341, Public Utilities Code. Reference: Section 8341, Public Utilities Code.

§ 2903. Compliance with the Emission Performance Standard.

(a) Except as provided in Subsection (b), a powerplant's compliance with the EPS shall be determined by dividing the powerplant's annual average carbon dioxide emissions in pounds by the powerplant's annual average net electricity production in MWh. This determination shall be based on capacity factors, heat rates, and corresponding emissions rates that reflect the expected operations of the powerplant and not on full load heat rates.

(b) The following types of powerplants are determined to be compliant with the EPS:

(1) Any in-state or out-of-state powerplant that meets the criteria of a renewable electricity generation facility as defined in Chapter 8.6 of Division 15 of the Public Resources Code and as specified by guidelines adopted thereunder, except for hybrid systems;

(2) Powerplants using only biomass fuels that would otherwise be disposed of utilizing open burning, forest accumulation, spreading, composting, uncontrolled landfill, or landfill utilizing gas collection with flare or engine. Biomass includes but is not limited to agricultural waste, wood waste, and landfill gas;

(3) Hydroelectric powerplants; or

(4) Nuclear powerplants.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 8341, Public Utilities Code. Reference: Sections 25741 and 25747, Public Resources Code; and Section 8341, Public Utilities Code.

§ 2904. Annual Average Carbon Dioxide Emissions.

(a) Except as provided in Subsections (b) and (c), a powerplant's annual average carbon dioxide emissions are the amount of carbon dioxide produced on an annual average basis by each fuel used in any component directly involved in electricity production, including, but not limited to, the boiler, combustion turbine, reciprocating or other engine, and fuel cell. The fuels used in this calculation shall include, but are not limited to, primary and secondary fuels, backup fuels, and pilot fuels, and the calculation shall assume that all carbon in the fuels is converted to carbon dioxide. Fuels used in ancillary equipment, including, but not limited to, fire pumps, emergency generators, and vehicles shall not be included.

(b) For powerplants not eligible for renewable portfolio standard certification that use biomass fuels in combination with other fuel(s), the powerplant's annual average carbon dioxide emissions are the amount of carbon dioxide produced on an annual average basis by all fuels used other than biomass, biogas or landfill gas.

(c) For covered procurements that employ geological formation injection for CO_2 sequestration, the annual average carbon dioxide emissions shall not include the carbon dioxide emissions that are projected to be successfully sequestered. The EPS for such powerplants shall be determined based on projections of net emissions over the life of the powerplant. Carbon dioxide emissions shall be considered successfully sequestered if the sequestration project meets the following requirements:

(1) Includes the capture, transportation, and geologic formation injection of CO_2 emissions;

(2) Complies with all applicable laws and regulations; and

(3) Has an economically and technically feasible plan that will result in the permanent sequestration of CO_2 once the sequestration project is operational.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 8341, Public Utilities Code. Reference: Section 8341, Public Utilities Code.

§ 2905. Annual Average Electricity Production.

(a) Except as provided in Subsection (b), a powerplant's annual average electricity production in MWh shall be the sum of the net electricity available for all of the following: use onsite or at a host site in a commercial or industrial process or for sale or transmission from the powerplant.

(b) For the purposes of calculating compliance with the EPS, a cogeneration powerplant's annual average electricity production is the sum of the MWh of electricity produced and the useful thermal energy output expressed in MWh.

(1) Useful thermal energy output means:

(A) For a topping cycle cogeneration powerplant, the thermal energy that:

(i) is made available to an industrial or commercial process, including, but not limited to, the net of any heat contained in condensate return or makeup water;

(ii) is used in a heating application, including, but not limited to, space or domestic hot water heating; or

(iii) is used in a space cooling application, including, but not limited to, thermal energy used by an absorption chiller.

(B) For a bottoming cycle cogeneration powerplant, including, but not limited to, industrial waste-heat powered generators, the thermal energy used by an industrial process and any fuel used for supplemental firing.

(2) The useful thermal energy output shall be converted into a MWh equivalent using the standard engineering conversion factor of 3.413 MMBtu per MWh (or 3413 Btu per kWh).

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 8341, Public Utilities Code. Reference: Section 8341, Public Utilities Code.

§ 2906. Substitute Energy.

(a) Except as provided for below, a contract with a term of five years or more that includes the purchase of unspecified energy is not compliant with the EPS.

(b) A new contract for covered procurement from identified powerplants may contain provisions for the seller to substitute deliveries of energy under any of the following circumstances:

(1) The substitute energy only comes from one or more identified powerplants, each of which is EPS-compliant.

(2) For specified contracts with non-renewable resources or dispatchable renewable resources, or a combination of each, unspecified energy purchases for each identified powerplant are permitted up to 15% of forecast energy production of the identified powerplant over the term of the contract, provided that the contract only permits the seller to purchase unspecified energy under either of the following conditions:

(A) The identified powerplant is unavailable due to a forced outage, scheduled maintenance or other temporary unavailability for operational or efficiency reasons; or

(B) To meet operating conditions required under the contract, including, but not limited to, provisions for the number of start-ups, ramp rates, or minimum number of operating hours.

(3) For specified contracts with intermittent renewable resources, the amount of substitute energy purchases from unspecified resources is limited such that total purchases under the contract, whether from the intermittent renewable resource or from substitute unspecified resources, do not exceed the total reasonably expected output of the identified renewable powerplant over the term of the contract.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 8341, Public Utilities Code. Reference: Section 8341, Public Utilities Code.

§ 2907. Request for Commission Evaluation of a Prospective Procurement.

(a) A local publicly owned electric utility may request that the Commission evaluate a prospective procurement for any of the following:

(1) a determination as to whether a prospective procurement would extend the life of a power plant by 5 years;

(2) a determination as to whether a prospective procurement would constitute routine maintenance; or

(3) a determination as to whether a prospective procurement would be in compliance with the EPS.

(b) A request for evaluation under this section shall be treated by the Commission as a request for investigation under Chapter 2, Article 4 of the Commission's regulations.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 8341, Public Utilities Code. Reference: Section 8341, Public Utilities Code.

§ 2908. Public Notice.

(a) The Energy Commission shall create, maintain, and make available on its website a master contact list containing the names and e-mail addresses of all persons who have requested to be notified when a POU issues a notice pursuant to subdivision (b).

(b) Each local publicly owned electric utility shall post notice in accordance with Government Code Section 54950 et seq. whenever its governing body will deliberate in public on a covered procurement or any investment of $2.5 million or more to meet environmental regulatory requirements at a non-EPS compliant baseload facility.

(1) At the posting of the notice of a public meeting to consider a covered procurement or any investment of $2.5 million or more to meet environmental regulatory requirements at a non-EPS compliant baseload facility, the local publicly owned electric utility shall notify the Commission and all persons on the Commission's master contact list for notification of POU investments of the date, time and location of the meeting so the Commission may post the information on its website. This requirement is satisfied if the local publicly owned electric utility provides the Commission and all persons on the Commission's master contact list for notification of POU investments with the uniform resource locator (URL) that links to this information.

(2) Upon distribution to its governing body of information related to a covered procurement's compliance with the EPS or any investment of $2.5 million or more to meet environmental regulatory requirements at a non-EPS compliant baseload facility, for its consideration at a noticed public meeting, the local publicly owned electric utility shall make such information available to the public, shall provide an electronic copy to all persons on the Commission's master contact list established pursuant to subdivision (a), and shall provide the Commission with an electronic copy of the document for posting on the Commission's website. This requirement is satisfied if the local publicly owned electric utility provides the Commission and all persons on the Commission's master contact list for notification of POU investments with the URL that links to the documents or information regarding other manners of access to the documents.

(3) For a covered procurement involving a new or renewed contract with a term of five years or more, the documentation made publicly available at the time of posting pursuant to Subsections (1) and (2) shall include at a minimum:

(A) A description of the terms of the contract and option(s) to extend the contract;

(B) A description and identification of the powerplant(s) providing energy under the contract, including, but not limited to, power generation equipment and fuel type;

(C) A description of the design or operation of the powerplant(s) so as to indicate whether or not the powerplant(s) operates to supply baseload generation;

(D) An explanation as to how the contract is compliant with the EPS; and

(E) Supporting documents or information that allow for assessment of compliance with the standard, including, but not limited to, staff assessments and reports to the local publicly owned electric utility's governing body, planned or historical production and fuel use data, and applicable historical continuous emissions monitoring data.

(4) For a covered procurement involving a new ownership investment, the documentation made available at the time of posting pursuant to Subsections (1) and (2) shall include at a minimum:

(A) For new construction or purchase of an existing generating unit or powerplant, a description and identification of the planned powerplant or the purchased asset specifying the power generating equipment, power source, such as fuel type, wind, or biomass, all supplemental fuel sources, and all available historical production and fuel use data;

(B) For an incremental investment that is a covered procurement as defined in Section 2901(d), a description of the modifications to the unit(s) and their impact on generation capacity, carbon dioxide emissions, and planned operation.

(C) For non-renewable resources, the heat rate or carbon dioxide emissions profile of the powerplant and the source of this information.

(c) Except as provided below, each local publicly owned electric utility shall file annually a notice identifying all investments of $2.5 million or more that it anticipates making in the subsequent 12 months on non-EPS compliant baseload facilities to comply with environmental regulatory requirements. The filing shall contain a description of the investment and its intended purpose, the associated costs, and an indication of when a decision to move forward is expected. The filing shall also include any such investments made in the previous 12 month period that were not identified in the previous annual notice. The filing shall be made within 10 days of the local publicly owned utility's approval of the annual budget for the non-EPS compliant baseload facility.

(d) A local publicly owned electric utility that has entered into a binding agreement to divest itself of any non-EPS compliant baseload facility within 5 years is exempted from compliance with subsection (c) for that facility for as long as the binding agreement is in place or until such time that it has completed divestment of the facility.

(e) Investments of $2.5 million or more to meet environmental regulatory requirements at a non-EPS compliant baseload facility that are not also covered procurements are not subject to the compliance filing requirement under Section 2909 or compliance review under Section 2910.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 8341, Public Utilities Code. Reference: Section 8341, Public Utilities Code; and Section 54950, Government Code.

§ 2909. Compliance Filings.

Within ten (10) business days after a local publicly owned electric utility enters into a covered procurement, the local publicly owned electric utility shall submit a compliance filing to the Commission regarding the covered procurement. The compliance filing shall contain one paper copy with original signature and one electronic copy of the following:

(a) An attestation, signed under penalty of perjury by an agent of the local publicly owned electric utility authorized by its governing body to sign on its behalf, that:

(1) the governing body has reviewed and approved in a noticed public meeting both the covered procurement and the compliance filing;

(2) based on the governing body's knowledge, information or belief, the compliance filing does not contain a material misstatement or omission of fact;

(3) based on the governing body's knowledge, information or belief, the covered procurement complies with this Article; and

(4) the covered procurement contains contractual terms or conditions specifying that the contract or commitment is void and all energy deliveries shall be terminated no later than the effective date of any Commission decision pursuant to Section 2910 that the covered procurement fails to comply with this Article.

(b) The documentation for the covered procurement as listed in Section 2908(b)(3) if the covered procurement is a new or renewed contract or 2908(b)(4) if the covered procurement is a new ownership investment.

(c) For any covered procurement utilizing carbon sequestration pursuant to Section 2904(c), documentation demonstrating that Subsections 2904(c)(1)-(3) have been met.

(d) For any covered procurement that permits unspecified energy purchases, the source data and methodology the local publicly owned electric utility used in developing the level of expected output from the identified powerplants, in order to demonstrate that the limits for unspecified energy purchases were properly established.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 8341, Public Utilities Code. Reference: Section 8341, Public Utilities Code.

§ 2910. Compliance Review.

The executive director shall review each compliance filing and make a recommendation to the full Commission on whether the covered procurement complies with this Article. The executive director may, within 14 days after receipt of a compliance filing, notify the local publicly owned electric utility in writing that the compliance filing was not complete, and shall specify what information is missing from the filing. The Commission shall consider the executive director's recommendation and shall, within 30 days after receipt of a complete compliance filing, issue a decision on whether the covered procurement described in the compliance filing complies with this Article. The Commission decision shall become effective 30 days after the date of the decision.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 8341, Public Utilities Code. Reference: Section 8341, Public Utilities Code.

§ 2911. Compliance Investigation.

The Commission may on its own motion, or as a result of a request from any person, including, but not limited to, a member of the public, staff, or other agency, conduct a complaint or investigation proceeding, or both, pursuant to Chapter 2, Article 4, to determine a local publicly owned electric utility's compliance with this chapter. In conducting such a proceeding, the Commission may require the production of information and documents beyond those made available to the public during consideration of the covered procurement or submitted with the compliance filing, including, but not limited to, contracts, staff assessments and reports to the utility's governing board, land use and air quality permits, continuous emissions monitoring data, and other information or documents that may aid in assessing compliance with this chapter.
Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 8341, Public Utilities Code. Reference: Section 8341, Public Utilities Code.

§ 2912. Case-by-Case Review for Reliability or Financial Exemptions.

(a) A local publicly owned electric utility may petition the Commission for an exemption from application of this chapter to a covered procurement that would not comply with the EPS. The Commission may grant an exemption for covered procurements under this section if the local publicly owned electric utility demonstrates that:

(1) the covered procurement is necessary to address system reliability concerns; or

(2) extraordinary circumstances, catastrophic events, or threat of significant financial harm will arise from implementation of this chapter.

(b) Upon receipt of a petition, the executive director shall review and make a recommendation to the full Commission on whether to grant the petition. The executive director may, within 14 days after receipt of a petition, notify the local publicly owned electric utility in writing of any additional information needed to review the petition. The Commission shall consider the executive director's recommendation and shall issue a decision on whether to grant the petition within 30 days after receipt of the complete petition.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 8341, Public Utilities Code. Reference: Section 8341, Public Utilities Code.

§ 2913. Case-by-Case Review for Pre-Existing Multi-Party Commitments.

(a) A local publicly owned electric utility may petition the Commission for an exemption from application of this chapter for covered procurements required under the terms of a contract or ownership agreement that was in place January 1, 2007. The Commission may exempt covered procurements from application of this chapter if the local publicly owned electric utility demonstrates that:

(1) the investments are required under the terms of the contract or ownership agreement; and

(2) the contract or ownership agreement does not afford the local publicly owned electric utility applying for the exemption the opportunity to avoid making such covered procurements.

(b) Upon receipt of a petition under this section, the executive director shall review and make a recommendation to the full Commission on whether to grant the petition. The executive director may, within 14 days after receipt of a petition, notify the local publicly owned electric utility in writing of any additional information needed to review the petition. The Commission shall consider the executive director's recommendation and shall issue a decision on whether to grant the petition within 30 days after receipt of the complete petition.
Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 8341, Public Utilities Code. Reference: Section 8341, Public Utilities Code.

Chapter 12. Alternative and Renewable Fuel and Vehicle Technology Program Regulations

Article 1. General Provisions Regarding Project Funding

§ 3100. Advanced Vehicle Technology.

Projects that produce or manufacture vehicles and components as described in Health and Safety Code Section 44272(d) shall be eligible for funding.

Note: Authority cited: Section 44272(a), Health and Safety Code. Reference: Section 44272(a)-(d), Health and Safety Code.

§ 3101. Criteria for Project Funding.

(a) One or more of the following criteria, as applicable to the funding application, shall be used to determine which projects will receive funding. Preference will be given to project applications that can best:

(1) Provide economic benefits to California by promoting California-based technology firms, new job creation, new business development, economic benefit to low income communities, avoidance of disproportionate impacts to disadvantaged communities, and increased state revenue.

(2) Drive new technology advancement for vehicles, vessels, engines, and other equipment, and promote the deployment of such technologies in the marketplace.

(3) Provide a measurable transition from the nearly exclusive use of petroleum fuels to a diverse portfolio of viable alternative fuels that meet California's petroleum reduction and alternative fuel use goals.

(4) Use existing or proposed fueling infrastructure to maximize the outcome of the project.

(5) Use alternative fuel blends of at least 20 percent, with additional preference for projects with higher blends.

(6) Provide the largest amount of non-state matching funds.

(7) Demonstrate the ability and capacity to successfully implement and complete the project proposed for program funding.

(8) Demonstrate technical feasibility and market readiness of the proposed technology.

(9) Demonstrate the cost-effectiveness of the proposed technology in achieving greenhouse gas emissions reduction.

Note: Authority cited: Section 44272(a)-(c), Health and Safety Code. Reference: Section 44272(a)-(c), Health and Safety Code.

§ 3101.5. Sustainability Goals and Evaluation Criteria.

(a) As directed in Health and Safety Code Section 44271(a)(1), the commission establishes the following sustainability goals for the program. The sustainability goals described in this section shall guide the commission in ensuring that funded projects promote sustainable alternative fuels and vehicles and do not adversely affect natural resources. The criteria described in subpart (b) shall serve as the metrics by which the commission identifies projects that best achieve the sustainability goals.

(1) The first sustainability goal shall be the substantial reduction of greenhouse gas emissions associated with California's transportation system to help meet California's 2020 and 2050 targets as defined in Health and Safety Code Section 38550 and the Governor's Executive Order S-03-05.

(2) The second sustainability goal shall be to protect the environment, including all natural resources, from the effects of alternative and renewable fuel development and promote the superior environmental performance of alternative and renewable fuels, infrastructure and vehicle technologies.

(3) The third sustainability goal shall be to enhance market and public acceptance of sustainably produced alternative and renewable fuels by developing, promoting, and creating incentives for the production of such fuels in accordance with certified sustainable production practices and standards as established by government agencies, academic institutions, and nongovernmental organizations.

(b) In addition to the criteria listed in Section 3101, one or more of the following sustainability criteria shall be applied to each project, as appropriate, with the objective to fund only those projects that best exemplify attainment of the commission's sustainability goals,

promote sustainable alternative fuels and vehicles, and do not adversely affect natural resources. Greater preference will be given to projects that incorporate or demonstrate the greatest number of sustainability criteria.

(1) Strong preference will be given to projects that can best contribute to meeting California's climate change policy goals as described in Health and Safety Code Section 38550, the Governor's Executive Order S-03-05, and the Low Carbon Fuel Standard when adopted by the Air Resources Board, and that demonstrate the best potential for substantial reduction of greenhouse gas emissions associated with California's transportation system.

(A) Applicants must provide sufficient information to determine the greenhouse gas emissions profile of the proposed project on a full fuel-cycle basis in accordance with the methodologies described in the August 2007 Full Fuel Cycle Assessment (CEC-600-2007-004-REV), or an alternative methodology approved by the commission. This information shall include an estimate of greenhouse gas emissions from indirect land use changes.

(B) Projects with the lowest greenhouse gas emissions from the petroleum baseline, as defined in the August 2007 Full Fuel Cycle Assessment (CEC-600-2007-004-REV), will demonstrate the best potential to contribute to state climate change policies.

(C) Projects with greenhouse gas emissions that exceed the petroleum baseline, on a full fuel-cycle basis, would not be eligible for funding consideration.

(2) Strong preference will be given to projects that demonstrate environmental protection, natural resource preservation, and superior environmental performance, by the use of manufacturing, production or agricultural technologies and practices which are more energy efficient and less environmentally damaging than current standard practices and technologies for the production of petroleum fuels, production of basic agricultural commodities and extraction of natural resources when measured on a life-cycle basis. The commission will fund projects that best demonstrate and implement practices that preserve ecosystem integrity, protect and enhance the resiliency of natural ecosystems, and respect the physical carrying capacity limits of natural systems at the local, regional, and global scale.

(A) Projects that maximize the use of waste stream materials as their feedstock are examples of technologies that further environmental protection and natural resource preservation goals.

(B) The use of existing Best Management Practices developed by natural resource and pollution control agencies, academic institutions, or non-governmental organizations and that exceed applicable Best Available Control Technologies are examples of appropriate means to protect the environment and natural resources.

(C) For projects using purpose-grown energy crops, furtherance of environmental protection and natural resource preservation goals would be demonstrated by:

i. Development and implementation of a sustainability best management practices plan developed by institutions such as the University of California at Davis.

ii. Use of lands historically used for agricultural purposes.

iii. Use of marginal crop lands that are not used for food crops and that do not displace or disrupt cropping patterns for food production.

iv. Use of crops uniquely suited to climate, water and natural resource constraints in California and the Arid West that require less irrigation water than commonly produced agricultural commodities.

(D) Infrastructure and agricultural projects that implement water efficiency and water use reduction measures, that use recycled or reclaimed water for industrial purposes, and that reduce or eliminate point source and non-point source wastewater discharge, are examples of appropriate resource protection practices.

(E) Projects that use renewable energy or cogeneration in the production, processing or distribution phase will demonstrate that the project implements environmental protection and natural resource preservation practices.

(F) Projects that use forest biomass resources as part of their feedstock, and that demonstrate the advancement of natural resource protection goals, are those that use forest biomass collection or harvesting practices that do not diminish the ecological values of forest stands, and that are consistent with forest restoration, fire risk management and ecosystem management goals.

(G) Projects that create benefits to state natural resources or that ameliorate degraded resources would demonstrate natural resource protection goals.

(H) Alternative fuel infrastructure projects that procure and distribute low carbon alternative fuels as described in 3101.5 (b)(1), or that are produced in accordance with the sustainability criteria described in sections 3101.5(b)(2) and (b)(3), would demonstrate furtherance of greenhouse gas reduction and natural resource protection goals.

(3) Preference will be given to projects which produce sustainable feedstocks, or produce or distribute alternative fuels, which strictly follow established government or third party sustainability certification standards for the production of alternative and renewable fuels.

(A) Examples of sustainability certification standards include, but are not limited to:

i. Roundtable on Sustainable Biofuels

ii. Council for Sustainable Biomass Production

iii. Sustainable Biodiesel Alliance

iv. Roundtable for Sustainable Palm Oil

v. UK Renewable Fuel Transport Obligation

vi. European Commission's Sustainability Criteria and Certification Systems for Biomass Production

vii. Forest Stewardship Council

Note: Authority cited: Sections 44271(a)(1) and 44272(a), Health and Safety Code. Reference: Sections 44271(a)(1) and 44272(a)-(d), Health and Safety Code.

§ 3102. Definitions.

For purposes of Section 3101.5, the following definitions shall apply:

(a) "Natural resources" include forest lands, range lands, waters and watersheds, biodiversity resources (fish, wildlife, and flora) and their prime habitats, coastal lands and waters, minerals, and prime agricultural lands.

(b) "Environmental performance" denotes the relative environmental efficiency and levels of environmental impacts from industrial facilities, agricultural operations or natural resource extraction activities. Facilities with high levels of environmental performance use fewer natural resource and energy inputs per unit of fuel output, and have lower environmental impacts, than low environmentally performing facilities.

(c) "Carrying capacity" is the ability of an air basin, watershed, ecosystem, or landscape area to withstand resource extraction or absorb pollution loading until its basic functions are impaired.

Note: Authority cited: Sections 44271(a)(1) and 44272(a), Health and Safety Code. Reference: Sections 44271(a)(1) and 44272(a)-(c), Health and Safety Code.

§ 3103. Funding Restrictions.

(a) A project shall not be eligible for funding if it is mandated by any local, regional, state, or federal law, rule, or regulation.

(b) If a project is one that helps the applicant meet a performance requirement mandated by local, regional, state, or federal law, rule, or regulation, the project shall not be eligible for funding.

(c) To the extent a project exceeds what is required for compliance with a legally enforceable requirement, it may receive funding for that part of the project that the applicant demonstrates is not mandated to meet the requirement. Credits generated by the excess, however, may not be used or sold by the applicant to offset a legally enforceable requirement.

(d) For purposes of this section, a legally enforceable requirement refers to any requirement enforceable by a local, regional, state, or federal agency for the purpose of reducing the emission of one or more criteria pollutants, toxic air contaminants, or any greenhouse gas.

(e) For purposes of this section, the following are not subject to the restrictions contained in subdivisions (a) and (c):

1. A project that produces opt-in fuels under the Low Carbon Fuel Standard (California Code of Regulations, title 17, section 95480.1, subdivision (b));

2. A project that produces biofuel that meets or falls below the average carbon intensity requirements set forth in the Low Carbon Fuel Standard (California Code of Regulations, title 17, section 95482, subdivisions (b) and (c)) for the year in which the credits are generated;

3. A project under which the applicant has voluntarily opted-in to an emission reduction credit generating program for the purpose of participating in the program's credit market; and

4. A project that had been awarded funding under Health and Safety Code section 44272 prior to the effective date of this section as amended and also satisfies at least one of the requirements listed in subdivisions (e)(1)-(3).

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 44272(a), Health and Safety Code. Reference: Sections 44271-44272, Health and Safety Code.

§ 3104. Advisory Body.

The commission shall assign an appropriate policy committee to establish and maintain, as needed, an advisory committee for the Alternative and Renewable Fuel and Vehicle Technology Program. The advisory committee shall function as the advisory body required under Health and Safety Code Section 44272.5(a-c).

Note: Authority cited: Sections 44272(a) and 44272.5(a)-(c), Health and Safety Code. Reference: Section 44272.5(a)-(c), Health and Safety Code.

§ 3105. Designation of Advisory Committee Presiding Member.

The presiding member of the assigned policy committee shall serve as the presiding member of the advisory committee and shall preside over its public meetings.

Note: Authority cited: Sections 44272(a) and 44272.5(a)-(c), Health and Safety Code. Reference: Section 44272.5(a)-(c), Health and Safety Code.

§ 3106. Selection of Advisory Committee Members.

(a) The assigned policy committee shall solicit applications from persons who wish to serve as a representative from one of the interest groups or agencies identified in Health and Safety Code Section 44272.5, and may solicit applications from other persons who wish to represent interest groups beyond those listed in Health and Safety Code Section 44272.5.

(b) Anyone wishing to serve on the advisory committee by representing an interest group not identified in Health and Safety Code Section 44272.5(b) may apply to the assigned policy committee during any solicitation for applications. The assigned policy committee shall have the discretion to allow for one or more additional interest groups to be represented on the advisory committee. Such a determination shall consider whether representation of an additional interest group serves to diversify input from the advisory committee and whether the applicant has particular knowledge or expertise that would benefit public discussions and recommendations.

(c) The assigned policy committee shall notify interested persons at least 14 days in advance of any opportunity to serve as a representative on the advisory committee. The notice shall describe the process for selecting representatives, any criteria that will be used to choose between two or more persons wishing to represent the same interest group, and the number of representatives to be selected. Those selected to serve on the advisory committee shall serve at the pleasure of the assigned policy committee, except that the policy committee shall ensure that each interest group identified in Health and Safety Code Section 44272.5(b) is represented on the advisory committee.

Note: Authority cited: Sections 44272(a) and 44272.5(a)-(c), Health and Safety Code. Reference: Section 44272.5(a)-(c), Health and Safety Code.

§ 3107. Advisory Committee Duties.

(a) The advisory committee shall meet at least twice a year to assist in the development of an investment plan and its updates. The presiding member, in consultation with advisory committee members, shall decide when to hold advisory committee meetings and whether additional meetings are needed.

(b) The role of the advisory committee shall be to participate in one or more public discussions and arrive at public recommendations, whether by consensus or otherwise, regarding one or more elements of the investment plan. All public discussions and recommendations shall serve to inform and advise the assigned policy committee in the drafting of a proposed investment plan. The assigned policy committee shall annually propose an investment plan, its update, or the lack of need for an update to the commission for approval.

(c) Each advisory committee meeting shall be open to the public. No less than 10 calendar days prior to each meeting, notice of the meeting shall be posted on the commission's website and mailed or otherwise sent to interested persons. The commission shall establish a list of persons who request notice in writing.

Note: Authority cited: Sections 44272(a) and 44272.5(a)-(c), Health and Safety Code. Reference: Section 44272.5(a)-(c), Health and Safety Code.

§ 3108. Purpose of Investment Plan.

(a) The investment plan shall be subject to commission approval and, as approved, shall determine priorities and opportunities for funding under the program for the ultimate purpose of developing and deploying innovative technologies that will transform the state's fuels and vehicles to help attain the state's climate change policies and achieve the other goals specified in Health and Safety Code Section 44272 et seq.

(b) The assigned policy committee shall be responsible for the preparation and publication of a draft investment plan or update, taking into consideration recommendations and input from public meetings with the advisory committee.

(c) The draft investment plan or update shall be available for public review and comment no less than 30 days prior to the meeting at which the commission considers approving the proposed investment plan or update. During the period of public review, the assigned policy committee shall hold at least one public workshop on the draft investment plan update. The assigned policy committee may revise the draft investment plan based on comments received during the public review period. At least 14 days prior to the business meeting at which the investment plan will be considered for approval, the assigned policy committee shall publish a proposed investment plan.

(d) As part of the investment plan, the commission shall identify where existing public and private funding dollars are being invested; determine where public funding can be strategically used to encourage and support identified funding priorities of the investment plan including, but not limited to, consideration of potential for commercial viability, competiveness and production expansion of alternative fuels, assess the need for public funding based on where existing public and private funding dollars are already being invested, and analyze opportunities to leverage additional public or private funding.

(e) All funding decisions made by the commission shall be consistent with the investment plan, which shall be updated as needed annually. The investment plan shall serve to give public notice as to the types of projects that would be eligible to receive funding under the program and to specify the categories of funding allocations.

(f) If the commission determines that adjustments are needed in the allocations made to funding categories, the commission shall submit a report to the advisory committee documenting the conditions that lead to the adjustments.
Note: Authority cited: Sections 44272(a) and 44272.5(a), Health and Safety Code. Reference: Sections 44272.5(a) and 44272(a)-(d), Health and Safety Code.

Chapter 13. Enforcement Procedures for the Renewables Portfolio Standard for Local Publicly Owned Electric Utilities

§ 3200. Scope.

The regulations in this chapter implement enforcement procedures for the Renewables Portfolio Standard for local publicly owned electric utilities established in Article 16 (commencing with section 399.11) of Chapter 2.3 of Part 1 of Division 1 of the Public Utilities Code.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 399.30, Public Utilities Code. Reference: Section 399.30, Public Utilities Code.

§ 3201. Definitions.

The following definitions apply to this chapter:

(a) “Annual procurement target” means the amount of procurement that a POU must meet for a particular year for the purposes of calculating historic carryover.

(b) “Balancing authority” means a balancing authority as defined in Public Utilities Code section 399.12 (b).

(c) “Balancing authority area” means a balancing authority area as defined in Public Utilities Code section 399.12 (c).

(d) “Baseline” means the initial RPS procurement of a POU that will form the basis of that POU's annual procurement targets.

(e) “Bundled” means an electricity product that, when procured by the POU claiming the electricity product to satisfy its RPS procurement requirements, includes both the electricity and the associated renewable energy credits from an eligible renewable energy resource. For example, if the POU claiming an electricity product owns the associated eligible renewable energy resource, then all electricity products, including those associated with electricity consumed onsite, may be considered bundled electricity products.

(f) “California balancing authority” means a balancing authority primarily located in California with more than 50 percent of its end-use electric load physically located within the political boundaries of California. This includes balancing authority areas operated by the

California Independent System Operator Corporation, Los Angeles Department of Water and Power, Balancing Authority of Northern California, Imperial Irrigation District, and Turlock Irrigation District.

(g) “Commission” means the State Energy Resources Conservation and Development Commission, commonly known as the California Energy Commission.

(h) “Compliance period” means the compliance period as defined in Public Utilities Code section 399.30 (c).

(i) “Compliance report” means the report that each POU files with the Commission by July 1 of the calendar year following the end of a compliance period as specified in section 3207.

(j) “Electricity product” means either:

(1) Electricity and the associated renewable energy credit generated by an eligible renewable energy resource.

(2) An unbundled renewable energy credit.

(k) “Eligible renewable energy resource” means an electrical generating facility that the Commission has determined meets the definition of a “renewable electrical generation facility” in section 399.12 (e) of the Public Utilities Code, including a facility satisfying the criteria of section 399.12.5 of the Public Utilities Code, and has certified as an RPS-certified facility.

(*l*) “Executive Director” means the Executive Director of the Commission, or his or her designee.

(m) “Historic carryover” means a POU's procurement that satisfies the following criteria: 1) the procurement is for electricity and the associated renewable energy credit generated in 2004-2010 by an eligible renewable energy resource that met the Commission's RPS eligibility requirements in effect when the original procurement contract or ownership agreement was executed by the POU, 2) the original contract or ownership agreement was executed by the POU prior to June 1, 2010, and 3) the procurement is in excess of the sum of the 2004 - 2010 annual procurement targets defined in section 3206 (a)(5)(D) and was not applied to the RPS of another state or to a voluntary claim.

(n) “Megawatt-hour” or “MWh” means a unit of energy equivalent to one megawatt of electricity supplied for one hour.

(o) “NERC e-Tag” means an electronic record that contains the details of a transaction to transfer energy from a source point to a sink where the energy is scheduled for transmission across one or more balancing authority area boundaries. For purposes of this definition, “source point” refers to the generation source of the energy, and “sink” refers to the balancing authority in which the electric load is located.

(p) “Ownership agreement” includes:

(1) An agreement between a POU and a third party to acquire or develop an electrical generation facility or

(2) If the POU built and owns the electrical generation facility and therefore has no such agreement with a third party, the arrangement by which the POU built the facility, in which case the date of the arrangement for the purposes of section 3202(a) is the commercial operation date of the facility.

(q) “Portfolio balance requirement” refers to the portfolio content category minimum and maximum requirements defined in Public Utilities Code section 399.16.

(r) “Portfolio content category” refers to one of three categories of electricity products procured from an eligible renewable energy resource, as specified in section 3203.

(s) “POU” or “Local publicly owned electric utility” means a local publicly owned electric utility as defined by Public Utilities Code section 224.3.

(t) “Procure” means to acquire electricity products from eligible renewable energy resources, either directly from the eligible renewable energy resource or from a third party, through executed contracts or ownership agreements.

(u) “Renewable electrical generation facility” means a facility as defined in Public Resources Code section 25741(a).

(v) “Renewable energy credit” or “REC” means a certificate of proof, as defined in Public Utilities Code section 399.12 (h), associated with the generation of electricity from an eligible renewable energy resource.

(w) “Renewables Portfolio Standard” or “RPS” has the same meaning as defined in Public Utilities Code section 399.12 (i).

(x) “RPS-certified facility” means a facility that the Commission has certified as being eligible for the RPS pursuant to the Commission's RPS Guidelines, or that the Commission has granted limited RPS certification in place for the duration of that facility's contract or ownership agreement term pursuant to the Commission's RPS Guidelines.

(y) “RPS Guidelines” means the guidelines adopted by the Commission pursuant to Public Resources Code section 25747 (a) to implement the RPS.

(z) “RPS procurement requirements” refers to both the portfolio balance requirement and the RPS procurement target with which a POU must comply.

(aa) “RPS procurement target” means the specified percentage of retail sales that a POU must procure of electricity products from eligible renewable energy resources for each compliance period as defined in Public Utilities Code section 399.30 (c). For POUs that meet the criteria listed in Public Utilities Code section 399.30 (j), the procurement target is the annual specified percentage of the portion of electricity demand not met by the POU's qualifying hydroelectric generation, or the soft target for that year, whichever is less, that must be procured from eligible renewable energy resources.

(bb) “Resale” or “resold” means the sale from any entity to a POU of part or all of the electricity products procured by the entity through an executed procurement contract, as opposed to an ownership agreement.

(cc) “Retail sales” means sales of electricity by a POU to end-use customers and their tenants, measured in MWh. This does not include energy consumption by a POU, electricity used by a POU for water pumping, or electricity produced for onsite consumption (self-generation) that was not sold to the customer by the POU.

(dd) “Retire” means to claim a renewable energy credit in the tracking system established by the Commission pursuant to Public Utilities Code section 399.25 (c) and thereby commit the renewable energy credit to be used for compliance with the RPS.

(ee) “Soft target” means an amount equivalent to the percentage of retail sales for a single year within a compliance period that is used to calculate the RPS procurement target for that compliance period. For example, the soft target for 2014 is equal to 20 percent of retail sales for that year.

(ff) “Unbundled REC” means a REC from an eligible renewable energy resource that is not procured as part of the same contract or ownership agreement with the underlying energy from that eligible renewable energy resource; this includes RECs that were originally procured as a bundled product but were subsequently resold separately from the underlying energy.

(gg) “Western Electricity Coordinating Council” or “WECC” means the electricity coordinating council as defined in Public Utilities Code section 399.12 (k). WECC is one of several regional electric reliability councils with delegated authority under the North American Electric Reliability Corporation and the regional entity responsible for coordinating and promoting bulk electric system reliability in the Western Interconnection serving all or part of the 14 western states and portions of Mexico (in northern Baja California) and Canada (in British Columbia and Alberta).

(hh) “Western Renewable Energy Generation Information System” or “WREGIS” refers to the independent, renewable energy tracking system implemented for the region covered by the Western Electricity Coordinating Council.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 399.30, Public Utilities Code. Reference: Sections 25741 and 25747, Public Resources Code; and Section 399.30, Public Utilities Code.

§ 3202. Qualifying Electricity Products.

(a) For an electricity product to be used for compliance toward the RPS procurement requirements specified in section 3204, the electricity product must meet one of the following requirements:

(1) The electricity product is procured pursuant to a contract or ownership agreement executed on or after June 1, 2010.

(A) Procurement must be classified into a portfolio content category in accordance with section 3203.

(B) Procurement will be included in the calculation of the portfolio balance requirements as defined in section 3204 (c), unless the procurement is retired by a POU that meets the criteria of section 3204 (a)(7), 3204 (a)(8), or 3204 (a)(9).

(2) The electricity product is procured pursuant to a contract or ownership agreement executed before June 1, 2010, and the electricity product is associated with generation from an eligible renewable energy resource that met the Commission's RPS eligibility requirements that were in effect when the original procurement contract or ownership agreement was executed by the POU.

(A) Except as provided in paragraphs (B) and (C), the electricity product shall count in full toward the RPS procurement requirements, subject to the following:

1. If the associated REC is retired within 36 months of the date the electricity product is generated, the electricity product will count toward the RPS procurement targets as defined in section 3204 (a).

2. The electricity product will not be classified within a portfolio content category and will not count toward the requirements of section 3204 (c).

3. Electricity products associated with contracts of less than 10 years will not be subtracted when calculating excess procurement in accordance with section 3206 (a).

(B) If contract amendments or modifications after June 1, 2010, increase nameplate capacity or expected quantities of annual generation, increase the term of the contract except as provided in 3202 (a)(2)(C), or substitute a different eligible renewable energy resource, only the MWhs or resources procured prior to June 1, 2010, shall count in full toward the RPS procurement targets. The remaining procurement must be classified into a portfolio content category and follow the portfolio balance requirements in accordance with section 3204 (c).

(C) The term of such procurement contract may be extended if the initial term of the contract specified a procurement commitment of 15 years or more.

(3) The electricity product is procured pursuant to a contract or ownership agreement executed before June 1, 2010, but the eligible renewable energy resource did not meet the Commission's RPS eligibility requirements when the original procurement contract or ownership agreement was executed by the POU.

(A) Procurement must be classified into a portfolio content category in accordance with section 3203.

(B) Procurement will not be included in the calculation of portfolio balance requirements in section 3204 (c).

(C) If contract amendments or modifications after June 1, 2010, increase nameplate capacity or expected quantities of annual generation, increase the term of the contract, or substitute a different eligible renewable energy resource, only the MWhs or resources procured prior to June 1, 2010, shall be considered to meet the criteria of this section 3202 (a)(3) for the term of the contract executed prior to June 1, 2010. The remaining procurement, or any electricity products procured after the end of the original contract term, must be classified into a portfolio content category and follow the portfolio balance requirements in accordance with section 3204 (c).

(b) If any electricity products procured pursuant to a contract or ownership agreement executed prior to June 1, 2010, are resold on or after June 1, 2010, and the resale is not explicitly included in the original contract or ownership agreement terms, the electricity products must be

classified in a portfolio content category and follow the portfolio balance requirements of section 3204 (c), unless the procurement is retired by a POU that meets the criteria of section 3204 (a)(7), section 3204 (a)(8) or 3204 (a)(9).

(c) A POU may not use a REC associated with electricity products to meet its RPS procurement requirements unless it is retired within 36 months from the initial month of the generation of the associated electricity. For example, a POU can retire a REC associated with electricity generated in February 2011 no later than February 28, 2014, to claim the REC toward the POU's RPS procurement requirements. RECs may not be retired for purposes of the RPS procurement requirements of a compliance period if that compliance period begins after the date of retirement.

(d) A POU may not use a REC to meet its RPS procurement requirements for a compliance period that precedes the date of generation of the electricity associated with that REC. For example, a POU may not retire a REC associated with electricity generated in April 2014 to meet its RPS procurement requirements for the 2011-2013 compliance period.

(e) A POU may not use a REC to meet its RPS procurement requirements for a compliance period that precedes the date the POU procured that REC. For example, a POU may not retire a REC associated with electricity generated in November 2013 that the POU procured in February 2014 to meet its RPS procurement requirements for the 2011-2013 compliance period.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 399.30, Public Utilities Code. Reference: Sections 399.13, 399.16, 399.21 and 399.30, Public Utilities Code.

§ 3203. Portfolio Content Categories.

(a) Portfolio Content Category 1

(1) Portfolio Content Category 1 electricity products must be procured bundled to be classified as Portfolio Content Category 1, and the POU may not resell the underlying electricity from the electricity product back to the eligible renewable energy resource from which the electricity product was procured. The electricity products must be generated by an eligible renewable energy resource that is interconnected to a transmission network within the WECC service territory. For purposes of this section 3203, the first point of interconnection to the WECC transmission grid is the substation or other facility where generation tie lines from the eligible renewable energy resource interconnect to the network transmission grid. Portfolio Content Category 1 electricity products must also meet one of the following criteria:

(A) Electricity products must be generated by an eligible renewable energy resource that has its first point of interconnection within the metered boundaries of a California balancing authority area.

(B) Electricity products must be generated by an eligible renewable energy resource that has its first point of interconnection to an electricity distribution system used to serve end users within the metered boundaries of a California balancing authority area. For purposes of this section 3203, the first point of interconnection to an electricity distribution system is within the service area boundaries of a utility distribution company.

(C) Electricity products from the eligible renewable energy resource with a first point of interconnection outside the metered boundaries of a California balancing authority must be scheduled into a California balancing authority without substituting electricity from another source. For purposes of this section 3203, electricity generated by the eligible renewable energy resource must be scheduled into a California balancing authority on an hourly or subhourly basis, and the POU's governing board or other authority, as delegated by the POU governing board, must have approved an agreement, before the electricity is generated, to schedule the electricity from the eligible renewable energy resource into the California balancing authority on an hourly or subhourly basis. If there is a difference between the amount of electricity generated within an hour and the amount of electricity scheduled into a California balancing authority within that same hour, only the lesser of the two amounts shall be classified as Portfolio Content Category 1.

(D) Electricity products must be subject to an agreement between a California balancing authority and the balancing authority in which the eligible renewable energy resource is located, executed before the product is generated, to dynamically transfer electricity from the eligible renewable energy resource into the California balancing authority area. For purposes of this section 3203, electricity generated by the eligible renewable energy resource shall be scheduled into a California balancing authority area on an hourly or subhourly basis.

(2) Electricity products originally qualifying in Portfolio Content Category 1 and resold must meet the following criteria to remain in Portfolio Content Category 1:

(A) The original contract for procurement of the electricity products meets one of the criteria in section 3203 (a)(1)(A) - (D).

(B) The resale contract transfers only electricity and RECs that have not yet been generated prior to the effective date of the resale contract.

(C) The electricity and associated RECs must be transferred by the resale contract to the ultimate buyer, and the electricity must be transferred in real time.

(D) For those electricity products that satisfy section 3203 (a)(1)(C), the original hourly or subhourly schedule is maintained, and the criteria of section 3203 (a)(2)(A) - (C) are met.

(3) Electricity products originally qualifying in Portfolio Content Category 1 and resold that do not meet the criteria of section 3203 (a)(2)(A) - (D) shall not be counted in Portfolio Content Category 1.

(b) Portfolio Content Category 2

(1) Portfolio Content Category 2 electricity products must be generated by an eligible renewable energy resource that is interconnected to a transmission network within the WECC service territory, and the electricity must be matched with incremental electricity that is scheduled into a California balancing authority.

(2) Portfolio Content Category 2 electricity products must be procured bundled and must meet all of the following criteria:

(A) The first point of interconnection to the WECC transmission grid for both the eligible renewable energy resource and the resource providing the incremental electricity must be located outside the metered boundaries of a California balancing authority area.

(B) The incremental electricity used to match the electricity from the eligible renewable energy resource must be incremental to the POU. For purposes of this section 3203, “incremental electricity” means electricity that is generated by a resource located outside the metered boundaries of a California balancing authority area and that is not in the portfolio of the POU claiming the electricity products for RPS compliance prior to the date the contract or ownership agreement for the electricity products from the eligible renewable energy resource, with which the incremental electricity is being matched, is executed by the POU or other authority, as delegated by the POU governing board.

(C) The contract or ownership agreement for the incremental electricity is executed by the governing board or other authority, as delegated by the POU governing board, at the same time or after the contract or ownership agreement for the electricity products from the eligible renewable energy resource is executed.

(D) The incremental electricity must be scheduled into the California balancing authority within the same calendar year as the electricity from the eligible renewable energy resource is generated.

(E) The electricity from the eligible renewable energy resource must be available to be procured by the POU and may not be sold back to that resource.

(3) Electricity products originally qualifying in Portfolio Content Category 2 and resold must meet the following criteria to remain in Portfolio Content Category 2:

(A) The original contract for procurement of the electricity products meets the criteria of section 3203 (b)(2)(A) - (E).

(B) The resale contract transfers only electricity and RECs that have not yet been generated prior to the effective date of the resale contract.

(C) The resale contract transfers the original arrangement for incremental electricity, including the source and quantity for the incremental electricity.

(D) The resale contract retains the scheduling of the incremental electricity into the California balancing authority as set out in the original transaction.

(E) The transaction provides incremental electricity for the POU claiming the transaction for RPS compliance.

(F) The incremental electricity is scheduled into the California balancing authority.

(4) Electricity products originally qualifying in Portfolio Content Category 2 and resold that do not meet the criteria above must be counted in Portfolio Content Category 3.

(c) Portfolio Content Category 3

(1) All unbundled renewable energy credits and other electricity products procured from eligible renewable energy resources located within the WECC transmission grid that do not meet the requirements of either Portfolio Content Category 1 or Portfolio Content Category 2 fall within Portfolio Content Category 3.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 399.30, Public Utilities Code. Reference: Sections 399.16 and 399.30, Public Utilities Code.

§ 3204. RPS Procurement Requirements.

(a) RPS procurement targets for each compliance period:

(1) For the compliance period beginning January 1, 2011, and ending December 31, 2013, a POU shall demonstrate it has procured electricity products sufficient to meet or exceed an average of 20 percent of its retail sales over the three calendar years in the compliance period. The numerical expression of this requirement is:

$$\frac{(EP_{2011} + EP_{2012} + EP_{2013})}{(RS_{2011} + RS_{2012} + RS_{2013})} \geq 0.20$$

EP_X = Electricity products retired for the specified year X; this may include excess procurement and historic carryover that the POU has chosen to apply to the compliance period containing year X

RS_X = Total retail sales made by the POU for the specified year X

No POU may apply Portfolio Content Category 3 RECs in excess of the maximum limit calculated in 3204 (c)(5) toward its RPS procurement target for this period.

(2) For the compliance period beginning January 1, 2014, and ending December 31, 2016, a POU shall demonstrate it has procured electricity products within that period sufficient to meet or exceed the sum of 20 percent of its 2014 retail sales, 20 percent of its 2015 retail sales, and 25 percent of its 2016 retail sales. The numerical expression of this requirement is:

$$EP_{2014} + EP_{2015} + EP_{2016} \geq 0.20(RS_{2014}) + 0.20(RS_{2015}) + 0.25\ (RS_{2016})$$

No POU may apply Portfolio Content Category 3 RECs in excess of the maximum limit calculated in 3204 (c)(6) toward its RPS procurement target for this period.

(3) For the compliance period beginning January 1, 2017, and ending December 31, 2020, a POU shall demonstrate it has procured electricity products within that period sufficient to meet or exceed the sum of 27 percent of its 2017 retail sales, 29 percent of its 2018 retail sales, 31 percent of its 2019 retail sales, and 33 percent of its 2020 retail sales. The numerical expression of this requirement is:

$$(EP_{2017} + EP_{2018} + EP_{2019} + EP_{2020}) \geq 0.27(RS_{2017}) + 0.29(RS_{2018}) + 0.31\ (RS_{2019}) + 0.33(RS_{2020})$$

No POU may apply Portfolio Content Category 3 RECs in excess of the maximum limit calculated in 3204 (c)(7) toward its RPS procurement target for this period.

(4) For the calendar year ending December 31, 2021, and each calendar year thereafter, a POU shall procure electricity products sufficient to meet or exceed 33 percent of its retail sales by the end of that year. No POU may apply Portfolio Content Category 3 RECs in excess of the maximum limit calculated in 3204 (c)(8) toward its RPS procurement target for the calendar year ending December 31, 2021, or for any calendar year thereafter.

(5) For a POU that is a joint powers authority of districts established pursuant to state law on or before January 1, 2005, that furnishes electric services other than to residential customers, and is formed pursuant to the Irrigation District Law (Division 11 [commencing with section 20500] of the Water Code), the percentage of total retail sales, upon which the RPS procurement targets in section 3204 (a)(1)-(4) are calculated, shall be based on that POU's

average annual retail sales over the seven years preceding the end of each year within that compliance period. (For example, for the compliance period ending December 31, 2013, the retail sales for 2011 shall equal the average annual retail sales for January 1, 2005 - December 31, 2011, the retail sales for 2012 shall equal the average annual retail sales for January 1, 2006 - December 31, 2012, and the retail sales for 2013 shall equal the average annual retail sales for January 1, 2007 - December 31, 2013.) If the POU has not furnished electric service for the seven years preceding the end of a compliance period, then the calculation shall be based on average annual retail sales over the number of completed years during which the authority has provided electric service.

(6) Notwithstanding section 3204 (a)(1) - (4) or section 3204 (c)(1)-(9), a POU that meets the criteria listed in Public Utilities Code section 399.30 (g) shall be deemed to be in compliance with this section.

(A) A POU shall demonstrate that it meets the criteria listed in section 399.30 (g) by providing the Commission documentation showing the POU receives all of its electricity pursuant to a preference right adopted and authorized by the United States Congress pursuant to section 4 of the Trinity River Division Act of August 12, 1955 (Public Law 84-386). The documentation shall include a copy of any written notice filed with the United States Secretary of the Interior or the Western Area Power Administration declaring the POU's intent to exercise its preference rights under the Trinity River Diversion Act and any integrated resource plan filed with the Western Area Power Administration confirming the POU's election to receive all of its electricity pursuant to its preference rights, and any updates or amendments to those written notices and integrated resource plans. The POU shall initially submit documentation to the Commission within 30 calendar days of the effective date of these regulations. Thereafter, the POU shall submit to the Commission a copy of any new or updated written notices or integrated resource plans filed with the United States Secretary of the Interior or the Western Area Power Administration. Copies of such notices and plans shall be submitted to the Commission within 30 calendar days of the date the notices and plans are filed with the United States Secretary of the Interior or the Western Area Power Administration. The Commission may request additional documentation if necessary to determine whether the POU meets the criteria listed in Public Utilities Code section 399.30 (g).

(7) Notwithstanding section 3204 (a)(1) - (4) or section 3204 (c)(1)-(9), a POU that meets the criteria listed in Public Utilities Code section 399.30 (j) shall be deemed to be in compliance with this section 3204 for a given calendar year if all of the POU's electricity demand in that calendar year is satisfied with its qualifying hydroelectric generation or if the POU meets the requirements of paragraph (D).

(A) For purposes of this section 3204 (a)(7), “qualifying hydroelectric generation” is generation from a facility that meets the following criteria:

1. The facility is located within the state.

2. The facility is owned and operated by the POU.

3. The facility is a hydroelectric facility but does not meet the definition of a renewable electrical generation facility and is not RPS-certified based on the definition of a renewable electrical generation facility.

(B) For purposes of this section 3204 (a)(7), “electricity demand” means consumption of electricity by all end-use customers and their tenants, including but not limited to the POU itself, measured in MWh.

(C) A POU shall demonstrate that it meets the criteria listed in Public Utilities Code section 399.30 (j) by providing the Commission documentation showing the POU received at least an average of 67 percent of its electricity demand in the twenty years preceding each compliance period from qualifying hydroelectric generation. The POU shall submit documentation for the twenty years immediately preceding January 1, 2017, by March 31, 2017. New documentation shall be submitted within 90 calendar days of the end of each subsequent compliance period.

(D) If a POU meeting the criteria listed in Public Utilities Code section 399.30 (j) has electricity demand unsatisfied by its qualifying hydroelectric generation in any given year, the POU shall procure electricity products equal to the lesser of the following:

1. The portion of the POU's electricity demand unsatisfied by the POU's qualifying hydroelectric generation.

2. The soft target listed in section 3204 (a)(1) - (4) corresponding to the year during which the POU's qualifying hydroelectric generation was insufficient to meet its annual electricity demand.

(8) A POU that meets the criteria of Public Utilities Code section 399.30 (h) shall not be subject to the requirements in section 3204 (c)(1)-(9). A POU shall demonstrate that it meets the criteria listed in Public Utilities Code section 399.30 (h) by providing the Commission documentation showing the POU was in existence on or before January 1, 2009, that it provides retail electric service to 15,000 or fewer customer accounts in California, and that it is interconnected to a balancing authority primarily located outside California but within the WECC.

(9) A POU that meets the criteria of Public Utilities Code section 399.18 shall not be subject to the requirements in section 3204 (c)(1)-(9). A POU shall demonstrate that it meets these criteria by providing the Commission documentation showing that the POU is a successor to an electrical corporation that had 1,000 or fewer customer accounts in California as of January 1, 2010, and was not interconnected to any transmission system or to the Independent System Operator as of January 1, 2010.

(10) Notwithstanding section 3204 (a)(1) - (4), beginning on January 1, 2014, a POU that meets the criteria listed in Public Utilities Code section 399.30 (k) shall not be required to procure additional electricity products for a given compliance period in excess of either the portion of its retail sales not supplied by qualifying hydroelectric generation or the POU's cost limitation adopted pursuant to section 3206 (a)(3).

(A) For purposes of this section 3204 (a)(10), “qualifying hydroelectric generation” is generation from a facility that meets the following criteria:

1. The facility is owned solely and operated by the POU as of 1967.

2. The facility serves a POU with a distribution system demand of less than 150 megawatts.

3. The facility was involved in a contract in which an electrical corporation received the benefit of the electric generation through June 2014, at which time the benefit reverted back to the ownership and control of the POU. The POU is not required to apply the electric generation from the facility toward its own load to meet this criterion.

4. The facility has a maximum penstock flow capacity of no more than 3,200 cubic feet per second and includes a regulating reservoir with a small hydroelectric generation facility producing fewer than 20 megawatts with a maximum penstock flow capacity of no more than 3,000 cubic feet per second.

5. The facility generation does not result from an increase in the amount of water stored by a dam because the dam is enlarged or otherwise modified after December 31, 2012.

(B) A POU shall demonstrate that it meets the criteria listed in Public Utilities Code section 399.30 (k) by providing the Commission documentation showing that the annual average qualifying hydroelectric generation produced in the twenty years preceding each compliance period, or the entire generating history of the qualifying hydroelectric generation facility, whichever is less, is greater than 50 percent of the POU's retail sales for the year preceding that compliance period. The documentation shall identify the amount of any hydroelectric generation that resulted from an increase in the amount of water stored by a dam, because the dam was enlarged or otherwise modified after December 31, 2012. The POU shall initially submit documentation for the twenty years immediately preceding January 1, 2014, or the entire generating history of the qualifying hydroelectric generation facility, within 30 calendar days of the effective date of these regulations.

(C) If a POU meeting the criteria listed in Public Utilities Code section 399.30 (k) has retail sales unsatisfied by its qualifying hydroelectric generation in a compliance period, the POU shall procure electricity products equal to the lesser of the following:

1. The portion of the POU's retail sales unsatisfied by the POU's qualifying hydroelectric generation.

2. The target listed in section 3204 (a)(1) - (4) for that compliance period.

(D) A POU that meets the criteria of Public Utilities Code section 399.30 (k) shall be subject to the requirements in section 3204 (c)(1)-(9).

(b) RPS procurement requirements deficits incurred by a POU in any compliance period shall not be added to the RPS procurement requirements of the POU in a future compliance period.

(c) In meeting the RPS procurement targets as defined in section 3204 (a), each POU shall also be subject to the following portfolio balance requirements:

(1) For the compliance period beginning January 1, 2011, and ending December 31, 2013, not less than 50 percent of electricity products that meet the criteria of section 3202 (a)(1) and credited toward the RPS procurement target shall meet the definition of Portfolio Content Category 1 specified in section 3203 (a).

The numerical expression of this requirement is:

$$PCC1_{2011\text{-}2013} \geq 0.50 \times (POST_{2011\text{-}2013})$$

$PCC1_X$ = Electricity products retired and applied to the RPS procurement target for compliance period X that must meet the criteria of section 3202 (a)(1) and the definition of Portfolio Content Category 1 specified in section 3203 (a)

$POST_X$ = Portion of electricity products procured pursuant to a contract or ownership agreement executed on or after June 1, 2010, that is retired and applied toward the RPS procurement target for compliance period X

(2) For the compliance period beginning January 1, 2014, and ending December 31, 2016, not less than 65 percent of electricity products that meet the criteria of section 3202 (a)(1) and credited toward the RPS procurement target shall meet the definition of Portfolio Content Category 1 specified in section 3203 (a).

The numerical expression of this requirement is:

$$PCC1_{2014\text{-}2016} \geq 0.65 \times (POST_{2014\text{-}2016})$$

(3) For the compliance period beginning January 1, 2017, and ending December 31, 2020, not less than 75 percent of electricity products that meet the criteria of section 3202 (a)(1) and credited toward the RPS procurement target shall meet the definition of Portfolio Content Category 1 specified in section 3203 (a).

The numerical expression of this requirement is:

$$PCC1_{2017\text{-}2020} \geq 0.75 \times (POST_{2017\text{-}2020})$$

(4) For the calendar year ending December 31, 2021, and each calendar year thereafter, not less than 75 percent of electricity products that meet the criteria of section 3202 (a)(1) and credited toward the RPS procurement target shall meet the definition of Portfolio Content Category 1 specified in section 3203 (a).

The numerical expression of this requirement is:

$$PCC1_Y \geq 0.75 \times (POST_Y)$$

$PCC1_Y$ = Electricity products retired and applied toward the RPS procurement target for compliance year Y that must meet the criteria of section 3202 (a)(1) and the definition of Portfolio Content Category 1 specified in section 3203 (a)

$POST_Y$ = Portion of electricity products procured pursuant to a contract or ownership agreement executed on or after June 1, 2010, that is retired and applied toward the RPS procurement target for compliance year Y

(5) For the compliance period beginning January 1, 2011, and ending December 31, 2013, no more than 25 percent of electricity products that meet the criteria of section 3202 (a)(1) and credited toward the RPS procurement target shall meet the definition of Portfolio Content Category 3 specified in section 3203 (c).

The numerical expression of this requirement is:

$$PCC3_{2011\text{-}2013} \leq 0.25 \times (POST_{2011\text{-}2013})$$

$PCC3_X$ = Electricity products retired and applied toward the RPS procurement target for compliance period X that must meet the criteria of section 3202 (a)(1) and the definition of Portfolio Content Category 3 specified in section 3203 (c)

(6) For the compliance period beginning January 1, 2014, and ending December 31, 2016, no more than 15 percent of electricity products that meet the criteria of section 3202 (a)(1) and credited toward the RPS procurement target shall meet the definition of Portfolio Content Category 3 specified in section 3203 (c).

The numerical expression of this requirement is:

$$PCC3_{2014\text{-}2016} \leq 0.15 \times (POST_{2014\text{-}2016})$$

(7) For the compliance period beginning January 1, 2017, and ending December 31, 2020, no more than 10 percent of electricity products that meet the criteria of section 3202 (a)(1) and credited toward the RPS procurement target shall meet the definition of Portfolio Content Category 3 specified in section 3203 (c).

The numerical expression of this requirement is:

$$PCC3_{2017\text{-}2020} \leq 0.10 \times (POST_{2017\text{-}2020})$$

(8) For the calendar year ending December 31, 2021, and each calendar year thereafter, no more than 10 percent of electricity products that meet the criteria of section 3202 (a)(1) and credited toward the RPS procurement target shall meet the definition of Portfolio Content Category 3 specified in section 3203 (c).

The numerical expression of this requirement is:

$$PCC3_Y \leq 0.10 \times (POST_Y)$$

$PCC3_Y$ = Electricity products retired and applied toward the RPS procurement target for compliance year Y that must meet the criteria of section 3202 (a)(1) and the definition of Portfolio Content Category 3 specified in section 3203 (c)

(9) Except as otherwise required by section 3204 (c), electricity products meeting the definition of Portfolio Content Category 2 specified in section 3203 (b) may be used to meet RPS procurement requirements.

Note: Authority cited: Sections 25213 and 25218 (e), Public Resources Code; and Section 399.30, Public Utilities Code. Reference: Sections 399.13, 399.16 and 399.30, Public Utilities Code.

§ 3205. Procurement Plans and Enforcement Programs.

(a) Renewable Energy Resources Procurement Plan

(1) Within 60 calendar days of the effective date of these regulations, each POU shall adopt a renewable energy resources procurement plan detailing how the POU will achieve its RPS procurement requirements for each compliance period. The renewable energy resources procurement plan, and any revisions or updates to the plan, shall be submitted to the Commission within 30 calendar days of adoption. A POU that has previously adopted a renewable resources procurement plan before the effective date of these regulations does not need to adopt a new renewable energy resources procurement plan and submit the plan to the Commission if no changes are made to the plan after the effective date of these regulations.

(2) A POU that meets the criteria listed in Public Utilities Code section 399.30 (j) shall adopt a renewable energy resources procurement plan detailing how the POU will achieve its RPS targets annually. The renewable energy resources procurement plan shall additionally provide a forecast of the qualifying hydroelectric generation expected to meet the POU's forecasted annual electricity demand. The renewable energy resources procurement plan, and any revisions or updates to the plan, shall be submitted to the Commission within 30 calendar days of adoption.

(3) Each POU shall provide the following notice regarding new or updated renewable energy resources procurement plans:

(A) The POU shall post notice, in accordance with Chapter 9 (commencing with section 54950) of Part 1 of Division 2 of Title 5 of the Government Code, whenever its governing board will deliberate in public on its renewable energy resources procurement plan.

(B) Contemporaneous with the posting of the notice of a public meeting to consider the renewable energy resources procurement plan, the POU shall notify the Commission of the date, time, and location of the public meeting to consider the procurement plan. This requirement is satisfied if the POU provides the Commission with the uniform resource locator (URL) that directly links to the notice for the public meeting. Alternatively, an e-mail with information on the public meeting in Portable Document Format (PDF) may also be provided to the Commission.

(C) The POU must notify the Commission if any URL provided by the POU pursuant to this section 3205 no longer contains the correct link, and the POU must send the Commission a corrected URL that links to the information or a PDF containing the information as soon as it becomes available.

(b) Enforcement Program

(1) As of January 1, 2012, each POU shall have adopted an enforcement program detailing actions the POU will take if the POU determines that it will not meet its RPS procurement requirements in accordance with section 3204. The enforcement program, and any revisions or updates to the program, shall be submitted to the Commission within 30 calendar days of adoption.

(2) Each POU shall provide notice regarding new or updated enforcement programs. The enforcement program must be adopted at a publicly noticed meeting offering all interested parties an opportunity to comment.

(A) No less than 30 calendar days notice shall be given to the public of any meeting held for purposes of adopting the enforcement program.

(B) If the enforcement program is modified or amended, no less than 10 calendar days notice shall be given to the public before any meeting is held to make a substantive change to the enforcement program.

(3) Contemporaneous with the posting of the notice of a public meeting to consider the enforcement program, the POU shall notify the Commission of the date, time, and location of the public meeting to consider the enforcement program. This requirement is satisfied if the POU provides the Commission with the URL that directly links to the notice for the public meeting. Alternatively, an e-mail with information on the public meeting in PDF may also be provided to the Commission.

(4) The POU must notify the Commission if any URL provided by the POU pursuant to this section 3205 no longer contains the correct link, and the POU must send the Commission a corrected URL that links to the information or a PDF containing the information as soon as it becomes available.

(c) If a POU distributes information to its governing board related to its renewable energy resources procurement status or future procurement plans or enforcement programs, for the governing board's consideration at a public meeting, the POU shall make all that information available to the public at the same time it is distributed to its governing board and shall provide an electronic copy of that information to the Commission for posting on the Commission's website.

(1) This requirement is satisfied if the POU provides to the Commission the URL that directly links to the documents or information regarding other manners of access to the documents. Alternatively, an e-mail with the information in PDF may also be provided to the Commission.

(2) The POU must notify the Commission if any URL provided by the POU pursuant to this section 3205 no longer contains the correct link, and the POU must send the Commission a corrected URL that links to the information or a PDF containing the information as soon as it becomes available.

(d) Notwithstanding section 3205 (a) - (c), a POU that meets the criteria listed in Public Utilities Code section 399.30 (g) is not required to provide the Commission with a renewable energy resources procurement plan, enforcement program, or public notice or information concerning any such procurement plans or enforcement programs.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and section 399.30, Public Utilities Code. Reference: Sections 399.30, Public Utilities Code.

§ 3206. Optional Compliance Measures.

(a) In meeting its RPS procurement requirements, the governing board of a POU may adopt at a noticed public meeting any of the following measures:

(1) Excess procurement

(A) A POU may adopt rules permitting the POU to apply excess procurement in one compliance period to a subsequent compliance period, as specified in paragraphs (B) - (D) and subject to the following limitations:

1. Electricity products that meet the criteria of section 3202 (a)(1) or section 3202 (a)(3), and are classified in Portfolio Content Category 3 may not be counted as excess procurement.

2. Electricity products that meet the criteria of section 3202 (a)(1) and that exceed the maximum limit for Portfolio Content Category 3, as specified in section 3204 (c), must be subtracted from the calculation of excess procurement.

3. Electricity products procured under contracts of less than 10 years in duration shall be subtracted from the calculation of excess procurement, unless the electricity product meets the criteria in section 3202 (a)(2). If electricity products are procured under a contract that has been amended to extend the term, the duration of the amended contract will be calculated from

the original contract execution date to the amended contract end date. If electricity products are procured under a contract of less than 10 years in duration that has been amended to extend the total term to at least 10 years in duration, then electricity products generated as of the month and year in which the contract amendment occurs will be eligible to qualify as excess procurement.

(B) A POU that opts to allow the application of excess procurement as part of its renewable energy resources procurement plan or enforcement program may begin accruing excess procurement no earlier than January 1, 2011.

(C) Electricity products qualifying as excess procurement may be applied toward any future compliance periods, including compliance years following 2020.

(D) Excess procurement shall be calculated as follows:

1. The numerical expression of the excess procurement permitted for the compliance period ending December 31, 2013, is:

$$\text{Excess Procurement} = (EP_{2011\text{-}2013}) - (RPS_{2011\text{-}2013} + S3_{2011\text{-}2013} + STC_{2011\text{-}2013})$$

EP_X = Electricity products retired and applied toward the RPS procurement target for the compliance period X

RPS_X = The RPS procurement target calculated in section 3204 (a) for compliance period X

$S3_X$ = Retired PCC 3 RECs that meet the criteria of section 3202 (a)(1) in excess of the maximum calculated in section 3204 (c) for compliance period X

STC_X = All electricity products that meet the criteria of section 3202 (a)(1) or section 3202 (a)(3), are associated with contracts less than 10 years in duration, and are retired and applied toward the RPS procurement target for compliance period X

2. The numerical expression of the excess procurement permitted for the compliance period ending December 31, 2016, is:

$$\text{Excess Procurement} = (EP_{2014\text{-}2016}) - (RPS_{2014\text{-}2016} + S3_{2014\text{-}2016} + STC_{2014\text{-}2016})$$

3. The numerical expression of the excess procurement permitted for the compliance period ending December 31, 2020, is:

$$\text{Excess Procurement} = (EP_{2017\text{-}2020}) - (RPS_{2017\text{-}2020} + S3_{2017\text{-}2020} + STC_{2017\text{-}2020})$$

4. The numerical expression of the excess procurement permitted for the compliance period ending December 31, 2021, and each annual compliance period thereafter is:

$$\text{Excess Procurement} = (EP_Y) - (RPS_Y + S3_Y + STC_Y)$$

EP_Y = Electricity products retired and applied toward the RPS procurement target for the compliance year Y

RPS_Y = The RPS procurement target calculated in section 3204 (a) for compliance year Y

$S3_Y$ = Retired PCC 3 RECs that meet the criteria of section 3202 (a)(1) in excess of the maximum calculated in section 3204 (c) for compliance year Y

STC_Y = All electricity products that meet the criteria of section 3202 (a)(1) or section 3202 (a)(3), are associated with contracts less than 10 years in duration, and are retired and applied toward the RPS procurement target for compliance year Y

(E) Notwithstanding section 3206 (a)(1)(A)-(D), a POU that meets the criteria of section 3204 (a)(8) or section 3204 (a)(9) may adopt rules permitting the POU to apply excess procurement in one compliance period to a subsequent compliance period, subject to the following limitations.

1. Unbundled RECs that do not meet the criteria of section 3202 (a)(2) may not be counted as excess procurement. Electricity products that exceed the maximum limit for unbundled RECs specified in paragraph 5 must be subtracted from the calculation of excess procurement.

2. Electricity products procured under contracts of less than 10 years in duration shall be subtracted from the calculation of excess procurement, unless the electricity product meets the criteria in section 3202 (a)(2).

3. A POU that opts to allow the application of excess procurement as part of its renewable energy resources procurement plan or enforcement program may begin accruing excess procurement no earlier than January 1, 2011.

4. Electricity products qualifying as excess procurement may be applied toward any future compliance periods, including compliance years following 2020.

5. Excess procurement shall be calculated as follows:

i. The numerical expression of the excess procurement permitted for the compliance period ending December 31, 2013, is:

$$\text{Excess Procurement} = (EP_{2011\text{-}2013}) - (RPS_{2011\text{-}2013} + UR_{2011\text{-}2013} + STC_{2011\text{-}2013})$$

$UR_{2011\text{-}2013}$ = Unbundled RECs that do not meet the criteria of section 3202 (a)(2) and are retired and applied toward the RPS procurement target for compliance period ending December 31, 2013, that exceed an amount equal to 25 percent of the electricity products that meet the criteria of section 3202 (a)(1) and are retired and applied toward the RPS procurement target.

ii. The numerical expression of the excess procurement permitted for the compliance period ending December 31, 2016, is:

$$\text{Excess Procurement} = (EP_{2014\text{-}2016}) - (RPS_{2014\text{-}2016} + UR_{2014\text{-}2016} + STC_{2014\text{-}2016})$$

$UR_{2014\text{-}2016}$ = Unbundled RECs that do not meet the criteria of section 3202 (a)(2) and are retired and applied toward the RPS procurement target for compliance period ending December 31, 2016, that exceed an amount equal to 15 percent of the electricity products that meet the criteria of section 3202 (a)(1) and are retired and applied toward the RPS procurement target.

iii. The numerical expression of the excess procurement permitted for the compliance period ending December 31, 2020, is:

$$\text{Excess Procurement} = (EP_{2017\text{-}2020}) - (RPS_{2017\text{-}2020} + UR_{2017\text{-}2020} + STC_{2017\text{-}2020})$$

$UR_{2017\text{-}2020}$ = Unbundled RECs that do not meet the criteria of section 3202 (a)(2) and are retired and applied toward the RPS procurement target for compliance period ending December 31, 2020, that exceed an amount equal to 10 percent of the electricity products that meet the criteria of section 3202 (a)(1) and are retired and applied toward the RPS procurement target.

iv. The numerical expression of the excess procurement permitted for the compliance period ending December 31, 2021, and each annual compliance period thereafter is:

$$\text{Excess Procurement} = (EP_Y) - (RPS_Y + UR_Y + STC_Y)$$

UR_Y = Unbundled RECs that do not meet the criteria of section 3202 (a)(2) and are retired and applied toward the RPS procurement target for compliance year Y that exceed an amount equal to 10 percent of the electricity products that meet the criteria of section 3202 (a)(1) and are retired and applied toward the RPS procurement target.

(2) Delay of timely compliance

(A) A POU may adopt rules permitting the POU to make a finding that conditions beyond the control of the POU exist to delay the timely compliance with RPS procurement requirements, as defined in section 3204. Such a finding shall be limited to one or more of the following causes for delay and shall demonstrate that the POU would have met its RPS procurement requirements but for the cause of delay:

1. There is inadequate transmission capacity to allow sufficient electricity to be delivered from eligible renewable energy resources, or proposed eligible renewable energy resource projects, to the extent applicable, using the current operational protocols of the balancing authority in which the POU operates. A POU that owns transmission or has transmission rights may find that:

i. The POU has undertaken all reasonable measures under its control and consistent with its obligations under local, state, and federal laws and regulations to develop and construct new transmission lines or upgrades to existing lines intended to transmit electricity generated by eligible renewable energy resources, in light of its expectation for cost recovery.

ii. The POU has taken all reasonable operational measures to maximize cost-effective purchases of electricity from eligible renewable energy resources in advance of transmission availability.

2. Permitting, interconnection, or other circumstances have delayed procured eligible renewable energy resource projects, or there is an insufficient supply of eligible renewable energy resources available to the POU. The POU must also find that:

i. The POU prudently managed portfolio risks, including, but not limited to, holding solicitations for RPS-eligible resources with outreach to market participants and relying on a sufficient number of viable projects to achieve RPS procurement requirements.

ii. The POU sought to develop either its own eligible renewable energy resources, transmission to interconnect to eligible renewable energy resources, or energy storage used to integrate eligible renewable energy resources.

iii. The POU procured an appropriate minimum margin of procurement above the level necessary to comply with the RPS to compensate for foreseeable delays or insufficient supply.

iv. The POU had taken reasonable measures to procure cost-effective distributed generation and allowable unbundled RECs.

3. Unanticipated curtailment of eligible renewable energy resources was necessary to address the needs of a balancing authority.

(3) Cost limitations

(A) A POU may adopt rules for cost limitations on the procurement expenditures used to comply with its RPS procurement requirements.

(B) Such cost limitation rules shall ensure that:

1. The limitation is set at a level that prevents disproportionate rate impacts.

2. The costs of all procurement credited toward achieving the RPS are counted toward the limitation.

3. Procurement expenditures do not include any indirect expenses including, without limitation, imbalance energy charges, sale of excess energy, decreased generation from existing resources, transmission upgrades, or the costs associated with relicensing any POU-owned hydroelectric facilities.

(C) In adopting cost limitation rules, the POU shall rely on all of the following:

1. The most recent renewables energy resources procurement plan.

2. Procurement expenditures that approximate the expected cost of building, owning, and operating eligible renewable energy resources.

3. The potential that some planned resource additions may be delayed or canceled.

(D) When applying procurement expenditures under an adopted cost limitation rule, the POU shall apply only those types of procurement expenditures that are permitted under the adopted cost limitation rule.

(E) Adopted cost limitation rules shall include planned actions to be taken in the event the projected cost of meeting the RPS procurement requirements exceeds the cost limitation.

(4) Portfolio balance requirement reduction

(A) A POU may adopt rules that allow for the reduction of the portfolio balance requirement for Portfolio Content Category 1 for a specific compliance period consistent with Public Utilities Code section 399.16 (e).

(B) The need to reduce the portfolio balance requirements for Portfolio Content Category 1 must have resulted because of conditions beyond the control of the POU as provided in section 3206 (a)(2).

(C) A reduction of the portfolio balance requirement for Portfolio Content Category 1 below 65 percent for any compliance period after December 31, 2016, will not be considered consistent with Public Utilities Code section 399.16 (e).

(D) A POU that reduces its portfolio balance requirements for Portfolio Content Category 1 must adopt these changes at a publicly noticed meeting, providing at least 10 calendar days advance notice to the Commission, and must include this information in an updated renewable energy resources procurement plan submitted to the Commission. The notice to consider the portfolio balance requirement reduction and the procurement plan must include the following information:

1. The compliance period for which the reduction may be adopted.

2. The level to which the POU has reduced the requirement.

3. The reason or reasons the POU has proposed for adopting the reduction.

4. An explanation of how the needed reduction resulted from conditions beyond the control of the POU as provided in section 3206 (a)(2).

(5) Historic Carryover

(A) A POU may adopt rules that allow for procurement generated before January 1, 2011, that meets the criteria of section 3202 (a)(2), that is in excess of the sum of the 2004 - 2010 annual procurement targets defined in section 3206 (a)(5)(D) and that was not applied to the RPS of another state or to a voluntary claim, to be applied to the POU's RPS procurement target for the compliance period ending December 31, 2013, or for any subsequent compliance period.

(B) The historic carryover must be procured pursuant to a contract or ownership agreement executed before June 1, 2010. Both the historic carryover and the procurement applied to the POU's annual procurement targets must be from eligible renewable energy resources that were RPS-eligible under the rules in place for retail sellers at the time of execution of the contract or ownership agreement, except that the generation from such resources need not be tracked in the Western Renewable Energy Generation Information System. If the contract or ownership agreement is executed prior to April 21, 2004, the procurement must be from resources that were RPS-eligible under the rules in the RPS Guidelines in place as of April 21, 2004.

(C) Historic carryover shall be calculated by subtracting procurement generated between January 1, 2004, and December 31, 2010, in an amount that is equal to the sum of the 2004 - 2010 annual procurement targets defined in section 3206 (a)(5)(D) and the amount of procurement that was sold, claimed for a voluntary program, or claimed for compliance with the RPS of another state, from the total procurement generated during that same period. If a POU was not in existence as of January 1, 2004, historic carryover shall be calculated based on procurement generated between the first full calendar year during which the POU became operational and December 31, 2010.

(D) The RPS compliance obligation used to calculate a POU's historic carryover shall be based on the following:

1. A baseline of an amount equal to 2001 procurement divided by 2001 total retail sales, multiplied by 2003 total retail sales, plus 1 percent of 2001 total retail sales (or, if the POU was not in existence in 2001, “2001” in this calculation shall be replaced by the first full calendar year in which the POU was operational, and “2003” in this calculation shall be replaced by the second full calendar year after which the POU was operational). The numerical expression of the baseline is:

$$Baseline = (EP_{2001} \div RS_{2001}) \times RS_{2003} + (0.01 \times RS_{2001})$$

EP_X = Electricity products procured and retired and applied toward the RPS procurement target for the specified year X

RS_X = Total retail sales made by the POU for the specified year X

2. Annual procurement targets for 2004-2010 that are equal to the lesser of 20 percent of the previous year's retail sales or 1 percent of the previous year's retail sales greater than the annual procurement target for the previous year. The POU's annual procurement target for 2004 shall be equal to the lesser of 20 percent of 2003 retail sales or the baseline plus 1 percent of 2003 total retail sales, and the annual procurement target for 2010 shall be an amount equal to 20 percent of 2010 total retail sales. For POUs that were not in existence in 2001, “2003” in this calculation shall be replaced by the second full calendar year after which the POU became operational, and “2004” in this calculation shall be replaced by the third full calendar year after which the POU became operational.

(E) A POU that adopts rules allowing for the use of historic carryover shall submit all applicable procurement claims for January 1, 2004 - December 31, 2010 (or the date on which the POU became operational through December 31, 2010), baseline calculations, annual procurement target calculations, and any other pertinent documentation to the Commission within 90 calendar days after the effective date of these regulations. All applicable procurement claims must be retired and reported to the Commission within 90 calendar days after the effective date of these regulations to qualify as historic carryover.

(b) Rules adopted under this section 3206 shall be in place and described in a POU's renewable energy resources procurement plan or enforcement program for a given compliance period if the POU intends to rely on these rules to satisfy or delay its RPS procurement requirements. The Commission may, when hearing a complaint against a POU under section 1240, consider the date of adoption of any rules adopted pursuant to this section that the POU relied upon to satisfy or delay its RPS procurement requirements.

(c) Any rule or rule revision adopted under this section 3206 shall be submitted to the Commission within 30 calendar days after adoption. The rule or rule revision shall be submitted along with all reports, analyses, findings, and any other information upon which the POU relied in adopting the rule or rule revision.

(d) A POU may request the Executive Director of the Commission to review any rule or rule revision adopted under this section 3206 to determine its consistency with the requirements of Public Utilities Code section 399.30. The Executive Director shall make a determination, to the extent reasonably possible, within 120 days of receipt of a complete request for review. A complete request for review shall include the rule or rule revision and all reports, analyses, findings, and any other information upon which the POU relied in adopting the rule or rule revision. The Executive Director may request additional information from the POU or solicit information from the public to make a determination. Failure of the Executive Director to make such determination within 120 days of receipt of the complete request for review shall not be deemed a determination that such rule or rule revision is consistent with the requirements of Public Utilities Code section 399.30.

(e) A POU may apply an optional compliance measure in section 3206 (a)(2) or 3206 (a)(3) to satisfy or delay a portion or the entirety of a shortfall in meeting its RPS requirements under section 3204. A POU may also attribute different amounts comprising said shortfall to the cost limitation adopted in accordance with section 3206 (a)(3) or to one or more conditions of the delay of timely compliance adopted in accordance with section 3206 (a)(2).

(f) A POU may apply a portfolio balance requirement reduction as described in section 3206 (a)(4) to meet a portion or the entirety of a shortfall in meeting its portfolio balance requirement under section 3204 (c). A POU may also attribute different amounts comprising said shortfall to one or more conditions of the portfolio balance requirement reduction adopted in accordance with section 3206 (a)(4).

(g) In determining a POU's compliance with the RPS procurement requirements, the Commission will not consider the application of any rule or rule revision adopted by a POU under this section 3206 that the Commission determines does not comply with Public Utilities Code section 399.30, these regulations, or any applicable order or decision adopted by the Commission pertaining to the RPS.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 399.30, Public Utilities Code. Reference: Sections 399.13, 399.15, 399.16 and 399.30, Public Utilities Code.

§ 3207. Compliance Reporting for POUs.

(a) Each POU shall submit the following reports to the Commission as required by this section.

(b) Within 90 calendar days after the effective date of these regulations, any POU that has adopted rules allowing for historic carryover, in accordance with section 3206 (a)(5), shall submit documentation to the Commission including all applicable procurement claims by RPS-certified facility and generation month for January 1, 2004 - December 31, 2010 (or the date on which the POU became operational through December 31, 2010), baseline calculations used to determine the amount of historic carryover claimed, annual procurement target calculations for 2004-2010, and any other pertinent documentation necessary.

(c) By September 1, 2013, or 30 calendar days after the effective date of these regulations, whichever is later, and by July 1 of each year thereafter, each POU shall submit an annual report to the Commission that includes the information in paragraphs (1) - (4) below for the prior calendar year. The report submitted in 2013 shall include information required by paragraphs (1)-(4) below for both the 2011 and 2012 calendar years. The format for the annual report shall be specified by the Commission, but the information contained in the annual report may be combined with other existing reports that contain the same information and are also supplied to the Commission. If the annual report refers to information provided to the Commission through existing reports, the annual report shall reference the information by identifying the name, submittal date, and page number of the existing report. The annual report shall include an attestation, signed by an authorized agent of the POU, affirming that the information provided in the report is true and correct.

(1) POU identifying information, including:

(A) POU name, contact name, mailing address, phone number, and e-mail address.

(B) Year the POU was established.

(C) Number of end-use retail customer accounts in California.

(2) RPS annual progress information for the prior calendar year, including:

(A) Amount of total retail sales to end-use customers, in MWh, and projected retail sales for the current compliance period.

(B) Amount of procured electricity products retired, in MWh.

(C) WREGIS compliance report for procurement claims in the prior calendar year. For any procurement claims not tracked through WREGIS as permitted by the RPS Guidelines, the POU shall report procurement claims using the interim tracking system established by the Commission prior to the implementation of WREGIS.

(D) An initial, nonbinding classification of retired electricity products qualifying for each portfolio content category or qualifying to count in full in accordance with section 3202 (a)(2).

(E) A description of each of the eligible renewable energy resources with which the POU has executed contracts or ownership agreements during the prior year, including but not limited to the contracted amount of MWh, the contracted amount of MWh as a percentage of retail sales, resource fuel type, the execution date of the procurement contract or ownership agreement, the duration of the procurement contract or ownership agreement, a summary of the procurement contract or ownership agreement, the operational status of the resource, the date the resource came on-line, the date the resource came on-line using a renewable fuel or technology, if different, the date on which procurement of electricity products begins, if different, RPS certification status, the county, state, and country in which the resource is located, and a summary of the resource names and identification numbers.

(F) Documentation demonstrating the portfolio content category classification claimed for procured electricity products. This documentation may include, but is not limited to, interconnection agreements, NERC e-Tag data, scheduling agreements, firming and shaping agreements, and electricity product procurement contracts or similar ownership agreements and information.

(G) An explanation of any public goods funds collected for eligible renewable energy resource development, including a description of programs, expenditures, and expected or actual results.

(H) A description of any identified issues that occurred that have the potential to delay the POU's timely compliance with the RPS procurement requirements defined in section 3204, and planned actions to minimize the delay of timely compliance. Such issues may include, but are not limited to, inadequate transmission to allow for procurement to be delivered from eligible renewable energy resources, permitting, interconnection, or other circumstances that have delayed the procurement from eligible renewable energy resources, unanticipated curtailment of a contracted or owned eligible renewable energy resource, and higher-than-expected costs for the procurement or development of eligible renewable energy resources.

(I) A description of the energy consumption by the POU, including any electricity used by the POU for water pumping, the purpose of this consumption, the annual amount in MWh, and the annual amount in MWh being satisfied with electricity products.

(3) Actions taken by the POU demonstrating reasonable progress toward meeting its RPS procurement requirements. The information reported shall include, but not be limited to, a discussion of the following actions taken by the POU during the prior calendar year:

(A) Solicitations released to solicit bid for contracts to procure electricity products from eligible renewable energy resources to satisfy the POU's RPS procurement requirements.

(B) Solicitations released to solicit bid for ownership agreements for eligible renewable energy resources to satisfy the POU's RPS procurement requirements.

(C) Actions taken to develop eligible renewable energy resources to satisfy the POU's RPS procurement requirements, including initiating environmental studies, completing environmental studies, acquiring interests in land for facility siting or transmission, filing applications for facility or transmission siting permits, and receiving approval for facility or transmission siting permits.

(D) Interconnection requests filed for eligible renewable energy resources to satisfy the POU's RPS procurement requirements.

(E) Interconnection agreements negotiated and executed for eligible renewable energy resources to satisfy the POU's RPS procurement requirements.

(F) Transmission-related agreements negotiated and executed to transmit electricity products procured from eligible renewable energy resources to satisfy the POU's RPS procurement requirements.

(G) Other planning activities to procure electricity products from eligible renewable energy resources.

(4) In addition to the information specified in subparagraphs (c)(3)(A) - (G), the POU shall include a description of all actions planned by the POU in the current calendar year to demonstrate progress toward achieving the POU's RPS procurement requirements. The description of actions planned shall include, but not be limited to, a discussion of activities specified in subparagraphs (c)(3)(A) - (G).

(d) By July 1, 2014; July 1, 2017; July 1, 2021; and by July 1 of each year thereafter, each POU shall submit to the Commission a compliance report that addresses the reporting requirements of section 3207 (c) and the following information for the preceding compliance period:

(1) Classification per RPS-certified facility of the amount of procurement qualifying for each portfolio content category and procurement that shall count in full in accordance with section 3202 (a)(2).

(2) The POU's RPS procurement target for the compliance period, in MWh.

(3) The amount of excess procurement, in MWh, from previous compliance periods, if any, and historic carryover, if any, that the POU is applying to the compliance period.

(4) The amount of procurement retired, in MWh, that the POU wishes to claim toward the RPS procurement target for calculating the portfolio balance requirements.

(5) The amount of excess procurement, in MWh, for the compliance period, if any, that may be applied toward future compliance periods, as determined by applying the calculation in section 3206 (a)(1)(D) or section 3206 (a)(1)(E), as applicable.

(6) If a POU's compliance report indicates that the POU's RPS procurement requirements were not met, the POU shall provide documentation to justify the application of any optional compliance measures adopted by the POU in accordance with section 3206. The documentation shall include all reports, analyses, proposed findings, and any other information upon which the POU relied in applying the measure. The POU shall also submit an updated enforcement program and/or procurement plan that includes a schedule identifying potential sources of electricity products currently available or anticipated to be available in the future for meeting the POU's shortfall.

(A) If a POU applies adopted cost limitation measures, the POU shall report that cost limitation to the Commission in dollars spent during the compliance period. The POU shall also provide the Commission with an estimate of the total cost for the POU to procure sufficient electricity products to meet its RPS procurement requirements for the preceding compliance period. The POU shall additionally report on actions taken in response to RPS procurement expenditures meeting or exceeding the cost limitation.

(e) Notwithstanding section 3207 (a) - (d), a POU that meets the criteria listed in Public Utilities Code section 399.30 (g) shall submit to the Commission documentation as specified in section 3204 (a)(6).

(f) In addition to the applicable reporting requirements in section 3207 (a) - (d), a POU that meets the criteria listed in Public Utilities Code section 399.30 (j) shall annually submit to the Commission, by the deadline for annual reports specified in section 3207 (c), documentation demonstrating that the POU provides electric services to a local government that is both a city and county of the state and that the POU receives greater than 67 percent of its electricity sources to meet its electricity demands on an annual basis from qualified hydroelectric facilities as defined in section 3204 (a)(7). The Commission may request additional documentation if necessary to determine whether the POU meets the criteria listed in Public Utilities Code section 399.30 (j). A POU that meets the criteria listed in Public Utilities Code section 399.30 (j) must additionally submit its total electricity demand and documentation of its annual qualifying hydroelectric generation, and provide evidence that any electricity demands unsatisfied by its qualifying hydroelectric generation in any given year are met with procurement from eligible renewable energy resources, including renewable energy credits.

(g) In addition to the applicable reporting requirements in section 3207 (a) - (d), a POU that meets the criteria listed in Public Utilities Code section 399.30 (h) shall submit to the Commission, by the deadline for the compliance reports specified in section 3207 (d), documentation demonstrating that the POU provides retail electric service to 15,000 or fewer customer accounts in California, and that it is interconnected to a balancing authority primarily located outside California but within WECC. The Commission may request additional documentation if necessary to determine whether the POU meets the criteria listed in Public Utilities Code section 399.30 (h).

(h) In addition to the applicable reporting requirements in section 3207 (a) - (d), a POU that meets the criteria listed in Public Utilities Code section 399.30 (k) shall submit to the Commission, by the deadline for the compliance reports specified in section 3207 (d), documentation demonstrating that the average annual qualifying hydroelectric generation as defined in section 3204 (a)(10) in the twenty years preceding each compliance period, or the

entire generating history of the qualifying hydroelectric generation facility, whichever is less, is greater than 50 percent of the POU's retail sales for the year preceding that compliance period. The POU must additionally submit documentation to identify the amounts of qualifying hydroelectric generation produced during the compliance period, qualifying hydroelectric generation procured by the POU during the compliance period, and any generation during the compliance period that would have qualified as qualifying hydroelectric generation as defined in section 3204 (a)(10), except that it resulted from an increase in the amount of water stored by a dam, because the dam was enlarged or otherwise modified after December 31, 2012. The Commission may request additional documentation if necessary to determine whether the POU meets the criteria listed in Public Utilities Code section 399.30 (k) and to determine the amounts of any generation that qualifies as qualifying hydroelectric generation, or that would have qualified as qualifying hydroelectric generation, except that it resulted from an increase in the amount of water stored by a dam, because the dam was enlarged or otherwise modified after December 31, 2012.

(i) Incorrect and incomplete reports.

(1) If the Executive Director determines a report submitted by a POU pursuant to this section is incorrect or incomplete, he or she shall issue a written notice to the POU specifying what information is missing or needs to be corrected in the report. If a POU submits the missing or correct information to the Commission within ten (10) business days of receipt of such notice, the POU's initial failure to submit a complete and correct report shall not be processed as a separate violation under these regulations. Written notices issued pursuant to this subdivision may include e-mail or other written communications.

(2) A POU may request an extension of time to submit the missing or correct report information specified in the written notice issued by the Executive Director. Such a request for an extension of time must be received by the Commission no later than the date the missing or correct information is due to the Commission. The Executive Director shall act on a request for an extension of time within five business days after it is received by the Commission and may grant an extension of time of up to 30 calendar days from the date the missing or correct report information is due under the written notice if he or she finds that there is good cause for an extension. The POU's initial failure to submit a complete and correct report shall not be deemed a separate violation under these regulations if the Commission receives the complete or correct report information by the date specified in the extension. In determining whether good cause exists for purposes of this subdivision, the Executive Director may consider, without limitation, the following factors:

(A) Whether the POU was diligent in gathering the information necessary to submit a complete and correct report to the Commission and preparing the report for submission by the due date.

(B) Whether there were circumstances beyond the control of the POU that prevented the POU from gathering and producing a complete and correct report to the Commission by the due date.

(C) Whether the extension of time is likely to enable the POU to submit a complete and correct report by the extended due date.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Sections 399.30 and 9508, Public Utilities Code. Reference: Section 25747, Public Resources Code; and Sections 399.13, 399.15, 399.16, 399.30, 9507 and 9508, Public Utilities Code.

§ 3208. Enforcement.

(a) Any complaint against a POU pertaining to the enforcement of a RPS requirement, or any regulation, order, or decision adopted by the Commission pertaining to the RPS, shall be filed in accordance with Title 20, section 1240 of the California Code of Regulations.

(b) A complaint may be issued for a POU's failure to comply with any of the requirements in these regulations, including, but not limited to any of the following:

(1) Failure to meet an RPS procurement target as specified in subdivision (a) of section 3204 for reasons other than the POU's adopted cost limitations and/or delay of timely compliance rules which the Commission determines comport with the RPS requirements as specified in subdivisions (a)(2) and (3) of section 3206

(2) Failure to meet a Portfolio Content Category 1 portfolio balance requirement as specified in subdivision (c) of section 3204 for reasons other than the POU's adopted cost limitation and/or delay of timely compliance rules which the Commission determines comport with the RPS requirements as specified in subdivisions (a)(2) and (3) of section 3206

(3) Failure to adopt an RPS procurement plan, enforcement program or plan, or provide notice, disclosure, or other information to the Commission and public as specified in section 3205

(4) Failure to submit a complete annual, compliance, or other report, or other documentation or information as specified by section 3207.

Note: Authority cited: Sections 25213 and 25218(e), Public Resources Code; and Section 399.30, Public Utilities Code. Reference: Section 399.30, Public Utilities Code.