California Energy Commission

COMMITTEE FINAL STATE ENERGY PROGRAM GUIDELINES

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American Recovery and Reinvestment Act 2009

CALIFORNIA
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CHAPTER I:
American Recovery and Reinvestment Act State Energy Program Guidelines

A. Background

The California Energy Commission (Energy Commission) has developed these *Guidelines* to help implement and administer specific program areas funded by the State Energy Program (SEP) under the American Recovery and Reinvestment Act (ARRA) of 2009. ARRA was enacted by Congress to preserve and create jobs and promote economic recovery, to assist those most impacted by the recession, to provide investments needed to increase economic efficiency by spurring technological advances, and to make investments that will have long-term economic benefits. ARRA gives preference to projects that promote and enhance these objectives of the Act in an expeditious manner.

The U.S. Department of Energy (DOE) encourages states to develop SEP strategies that align with the following national goals: increasing jobs, reducing US oil dependency through increases in energy efficiency and deployment of renewable energy technologies, promoting economic vitality through an increase in "green jobs," and reducing green house gas emissions. The DOE encourages states to focus their program efforts on market transformation initiatives and actions that align with these national goals. Market transformation is defined as: "Strategic interventions that cause lasting changes in the structure or function of a market or the behavior of market participants, resulting in an increase in adoption of energy efficiency and renewable energy products, services, and practices."[1]

The DOE has allocated the Energy Commission $226 million in ARRA funding for the SEP. State law authorizes the Energy Commission to use these SEP funds for energy efficiency, energy conservation, renewable energy, and other energy-related projects and activities authorized by ARRA.[2] The Energy Commission will use the SEP funds to fund projects in the following program areas:

1. Municipal Financing Program ("AB 811-type programs")
2. California Comprehensive Residential Building Retrofit Program
3. Municipal and Commercial Building Targeted Measure Retrofit Program
4. Low Interest Energy Efficiency Financing Program.

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[1] See **http://www.energy.ca.gov/recovery/documents/SEP_Recovery_Act_Guidance_DE-FOA-00000521.pdf**

[2] Public Resources Code sections 25460 – 25463, as enacted by Assembly Bill X4 11 (Stats. 2009, 4th Ex. Sess., ch.11, sec. 22).

These *Guidelines* describe the manner in which the Energy Commission will implement the ARRA SEP for the four program areas. Chapter I of the *Guidelines* describes how the ARRA SEP program will be administered and includes information and requirements that apply overall to the SEP and to all of the four program areas. Chapters II, III, IV, and V describe the four program areas for which funding will be made available and include requirements specific to each program area.

The Energy Commission plans to develop and fund additional SEP program areas, for which it will provide guidance at a later date. The Energy Commission will enter into partnerships with other State agencies to fund energy efficiency programs. For example, it will work with the Department of General Services to establish a revolving loan program for energy efficiency retrofits to state buildings. $25 million has been allocated for this purpose pursuant to state law.[3] It also intends to work with the Employment Development Department and Employment Training Panel to support the Green Jobs Training Program and anticipates allocating $20 million for this purpose.

The Energy Commission also may allocate up to $50 million in SEP funds for competitive grants under the Energy Commission's Energy Conservation and Assistance Account (ECAA) program.

In addition, the Energy Commission plans to develop a Clean Energy Systems Program, which would provide up to $35 million to fund systems such as combined heat and power systems using natural gas or renewable energy and distributed generation systems that use renewable energy.

The final guidelines of SEP funds for the above noted purposes will be determined by the Energy Commission at a later date.

The Energy Commission will use approximately $10 million for program administration, implementation, technical support, monitoring, verification and evaluation.

B. Funding

Up to $95 million in ARRA SEP funds will be available for the Municipal Financing Program, the California Comprehensive Residential Building Retrofit Program, and the Municipal and Commercial Building Targeted Measure Retrofit Program areas under these *Guidelines*. These funds will be awarded based on the quality of the proposals submitted to the Energy Commission during the solicitation period. The Energy Commission will consider the ability of the proposed programs to implement energy saving projects on or before the March 31, 2012 deadline when making its funding allocation decisions. Depending on the quality of the

[3] Public Resources Code sections 25470 – 25474, as enacted by Assembly Bill X4 11 (Stats. 2009, 4th Ex. Sess., ch.11, sec. 23).

proposals submitted, all or a portion of the total funds available (up to $95 million) could be awarded to proposals in any of the three program areas.

A minimum of $25 million in ARRA SEP funds will be used to augment funding for loans under the Energy Commission's existing Energy Efficiency Financing Program. The Energy Efficiency Financing Program is funded through ECAA and provides low-interest loans for energy efficiency and renewable energy retrofits to cities, counties, special districts, public schools and colleges, public hospitals, and public care institutions. As described in Chapter V, the SEP-funded loans under the Energy Efficiency Financing Program will be subject to additional requirements, but offered at a lower interest rate of 1 percent per annum.

Applicants are encouraged to use existing sources of federal, state and utility funding to leverage the ARRA SEP funding applied for through these *Guidelines*. ARRA SEP funds may be used to supplement these existing sources of funding, but may not be used to supplant these existing funds.

Pursuant to the federal ARRA guidelines, ARRA SEP funding may not be used to fund projects for gambling establishments, aquariums, zoos, golf courses or swimming pools. No more than 20 percent of each award shall be used to purchase office supplies, library materials, or other equipment whose purchase is not otherwise prohibited. In addition, ARRA SEP funding may not be used:

1. For construction, such as construction of mass transit systems and exclusive bus lanes, or for construction or repair of buildings or structures;
2. To purchase land, a building or structure or any interest therein;
3. To subsidize fares for public transportation;
4. To subsidize utility rate demonstrations or State tax credits for energy conservation measures or renewable energy measures; or
5. To conduct, or purchase equipment to conduct, research, development or demonstration of energy efficiency or renewable energy techniques and technologies not commercially available.

C. Period of Performance

Pursuant to the federal SEP guidelines, all projects[4] and activities that are awarded SEP funds under these *Guidelines* must be completed and funds must be expended by March 31, 2012.

An applicant may not begin work under these *Guidelines* prior to the Energy Commission's approval and execution of the applicant's funding award agreement. Program expenses

[4] A "project" may include a program to fund multiple subprojects or activities under Chapters II, III, and IV of these *Guidelines*.

incurred prior to the approval and execution of a funding award agreement are not eligible for reimbursement under the funding award agreement.

D. Application Process and Selection Method

1. Solicitation Document

The Energy Commission will issue a solicitation document to initiate the application process. Eligible applicants who wish to receive funding for projects pursuant to these *Guidelines* must apply to the Energy Commission as specified in the solicitation document. The solicitation document will identify the following:

a) The program or program area for which the solicitation is issued;
b) Eligibility requirements;
c) Maximum amount of funds available under the solicitation, including any maximum or minimum amounts for individual funding awards;
d) Leverage fund/resource requirements (if any);
e) Utility rebates applicable to the project;
f) Schedule or timetable for conducting the solicitation;
g) Administrative requirements for submitting applications, including forms and instructions;
h) Criteria used to screen and evaluate funding applications; and
i) A sample funding award agreement that the recipient will be expected to execute.

The agreement will identify the terms and conditions applicable to an award and will include provisions that address matters such as funding award payments and invoicing, project management, progress reports, dispute resolution, award termination, and any provisions required by law. The agreement will also include provisions required by the state and federal government on matters such as accountability, transparency, project reporting, audits, record retention, access to facilities and projects, and prevailing wage[5]. The solicitation document may require applicants to submit a Letter of Intent to apply for program funding prior to the submission of an application. The Letter of Intent may be used to determine interest in program funding and the need to allocate or reallocate program funds. Applicants that fail to submit a Letter of Intent as specified by the solicitation document may be precluded from subsequently submitting an application for program funding.

Unless otherwise specified in a solicitation document, the Energy Commission or the Energy Commission's American Recovery and Reinvestment Act Ad Hoc Committee

[5] Section 1606 of ARRA broadly applies the federal prevailing wage requirements in the Davis-Bacon Act to ARRA-funded projects.

(ARRA Committee) may cancel a solicitation at any time prior to the final date applications are due under the solicitation.

2. Request for Funding

Eligible applicants who wish to receive program funding must apply for funding pursuant to the solicitation document described above. The solicitation document will specify both the address to which applications must be directed and the date by which they must be received.

Unless otherwise specified in the solicitation document, applications for funding must, at a minimum, include the following:

a) the name, address, and business contact information of applicant;
b) the name, address, and business contact information of the project contact;
c) an itemized budget for the project that identifies all related costs and expenses, including estimates of leveraged amounts/resources and sources;
d) an estimate of the amount of funds leveraged, energy and demand savings, renewable energy and demand production, and number of direct jobs created or retained as specified in subsection 5. below;
e) a description of the processes and measures the applicant has implemented to safeguard against fraud, waste and abuse of ARRA SEP funds;
f) a certification that the ARRA SEP funds will not be used to supplant other federal, state or utility funding;
g) a certification that the applicant has complied with the requirements of the Single Audit Act[6], if the applicant is a city or county government or non-profit organization; and
h) a certification by an authorized representative of the applicant that the information included in the application is true and correct to the best of the individual's knowledge.

Applications may require additional information as required by law or the Energy Commission, as specified in the solicitation document.

3. Governing Board Documentation

Prior to the execution of any agreement by a city or county, all county and city applicants must provide an original signed resolution (or copy with original signed certification), order, motion, or ordinance of the local governing body that by law has authority to enter into the funding award agreement. This document must authorize the

[6] U.S. Office of Management and Budget (OMB) Circular A-133, issued pursuant to the Single Audit Act of 1984 (P.L. 98-502), and the Single Audit Act Amendments of 1996 (P.L. 104-156).

recipient to enter into the funding award agreement and designate an authorized representative to execute all necessary agreements to implement and carry out the purposes of the award. If an eligible applicant is applying under a collaborative partnership involving several local governments, the governing board resolution or order must state the applicant is authorizing the collaborative lead to apply for and receive funding on its behalf. The recipient cannot begin Energy Commission-funded work until the resolution, order, motion, or ordinance has been fully executed and submitted to the Energy Commission and the Energy Commission has approved the funding award agreement. A sample governing board resolution may be provided in the solicitation document.

4. Data Universal Numbering System Number and Central Contractor Registration

   Recipients of SEP funding must obtain a Dun and Bradstreet (D & B) Data Universal Numbering System (DUNS) number and register in the federal Central Contractor Registration (CCR) database.

   DUNS Number

   A DUNS number is a unique identifier used by the federal government to track distribution of federal funds. To obtain a DUNS number, visit **http://fedgov.dnb.com/webform** or contact the D&B Government Customer Response Center 1-866-705-5711. A DUNS number is required to register in the CCR database.

   CCR Database
   The CCR database is the federal government's primary registrant database. It collects, validates, stores and disseminates data in support of federal grants, cooperative agreements, and other forms of assistance. To register, please visit CCR's website at **http://www.ccr.gov.** Registrants must update or renew their registration at least once per year to maintain an active status.

5. Estimate of Leveraged Funds, Energy Savings, and Jobs

   Proposals for each of the projects shall estimate the amount of funds leveraged, energy and demand savings, renewable energy and demand production, and number of direct jobs created or retained. Descriptions of each of these estimates and the types of jobs should be provided. The number of direct jobs should be estimated by dividing the total funds (SEP and leveraged) by $92,000. Indirect and induced jobs should not be estimated.

E. Confidentiality

Unless the program solicitation permits submission of confidential information, applications that contain confidential material will be disregarded and returned to the applicant. All applications submitted to the Energy Commission will be available for public inspection once the selections are made, with the exception of confidential materials that may be permitted under a solicitation.

F. Approval of Awards

The ARRA Committee will make recommendations for all funding awards, and funding award agreements will be prepared. Each funding award agreement will include the project description, work statement tasks, milestones and corresponding due dates, budget, and schedule. Each funding award agreement must be approved at an Energy Commission business meeting. Failure to meet any work statement tasks and milestones within the schedule or budget specified in the agreement may result in cancellation of the agreement by the Energy Commission.

The Energy Commission may rank the awards based on an evaluation of each project's ability to spend additional funds beyond the initial award. This ranking will be considered within the Energy Commission's process to disburse and reallocate funds (see section O. below).

G. Cancellation of Awards

An applicant may withdraw its application for funding at any time prior to the Energy Commission approval of a funding award agreement. After the funding award agreement has been executed, the Energy Commission may terminate the funding award agreement under those circumstances, terms and conditions specified in the funding award agreement.

H. Funding Award Packages

Unless indicated otherwise in the solicitation document, the award package will include at a minimum the following:

1. A funding award agreement that includes the terms and conditions applicable to the award, and signature blocks for the recipient and Energy Commission;
2. A detailed description of project activities;
3. A schedule of project activities and milestones and corresponding due dates; and
4. An itemized budget for the program that identifies all related costs and expenses, including leveraged funding/resources and sources.

I. Award Payments and Invoicing

Unless indicated otherwise in the solicitation document or the funding award agreement, award payments shall be subject to the following conditions:

1. Payments will be made on a reimbursement basis, after the recipient submits the appropriate invoice(s) to the Energy Commission. Advance payments may be considered by the Commission as authorized by federal law. The solicitation document will specify the requirements and conditions under which advance payments may be considered.
2. Ten percent (10%) of the funding award agreement amount will be withheld as retention until the final report is received from the applicant and the Energy Commission's Contract Manager determines the contract deliverables have been satisfactorily completed. Typically, the Energy Commission withholds 10% from each invoice throughout the program period, then the applicant submits a retention invoice once all contract deliverables have been satisfactorily completed. If requested, the Energy Commission can pay up to 90% of the agreement amount before the end of the agreement instead of withholding retention from each invoice.

3. All invoices must be submitted with a completed payment request form, as specified by the Energy Commission, and accompanied by all backup documentation. The backup documentation must include copies of paid invoices and receipts detailing the specific equipment and purchases, the services produced, and personnel time records where appropriate.
4. Prior to final payment, the Energy Commission reserves the right to verify that the amount of the award agreement, when combined with all other sources of funding for the project, including any utility rebates or incentives, does not exceed 100% of the total project cost.
5. Energy Commission staff must approve all invoices. Such approval is subject to the recipient's acceptable submittal of the required progress reports, other specified products, and the appropriateness of the invoiced expenses under the funding award agreement.

J. Tracking and Reporting

Though recipients are encouraged to use SEP funding in conjunction with other funding, tracking and reporting of SEP funding must be separate to meet ARRA federal and state reporting requirements. The terms and conditions of the funding award agreement will specify the format, tools and information required for reporting programmatic and energy metrics as specified by the federal and state government.

Recipients should review the Office of Management and Budget, *Implementing Guidance for the Reports on the Use of Funds Pursuant to the American Recovery and Reinvestment Act of 2009* at:

http://www.whitehouse.gov/omb/assets/memoranda_fy2009/m09-21.pdf

and *Supplement 2: Recipient Reporting Data Model* at:

http://www.whitehouse.gov/omb/assets/memoranda_fy2009/m09-21-supp2.pdf.

The Energy Savings Goal for the SEP is discussed in *Attachment 1 – SEP Recovery Act Program Guidance - Funding Opportunity Number DE-FOA-0000052* at:

http://www.energy.ca.gov/recovery/documents/SEP_Recovery_Act_Guidance_DE-FOA-00000521.pdf.

The *SEP Recovery Act Program Guidance* document establishes the following energy metric:

> "Each state portfolio of projects funded by SEP ARRA grants should seek to achieve annual energy savings of at least 10 million source BTUs for each $1,000 of total investment. … This goal applies to the entire portfolio of projects being funded. As such, there may be individual projects that do not meet this standard and others that exceed it."

Recipients will be required to report energy and demand saved, renewable energy and demand generation, and the funds leveraged for each ARRA SEP grant. Electric energy saved or produced will be converted to source BTUs by multiplying kWh by 10,239 BTU/kWh. The total energy saved in BTUs will be divided by the amount of ARRA SEP grants. This amount will then be multiplied by $1,000 to compare to the Energy Savings Goal.

The Energy Commission may request utility billing data from ARRA SEP program participants to track program energy saving and greenhouse gas emission reduction impacts. Upon request, ARRA SEP program participants must be prepared to provide utility billing data for at least the twelve months preceding and the twelve months following the project's implementation of a building retrofit project. To ease the burden of this data provision by the participant, the Energy Commission will work with the participant's utility company to facilitate the electronic exchange of the required billing data.

The reporting requirements may change and additional reporting requirements may be imposed by the federal government, the Department of Energy, and/or the State of California.

K. Reports and Documentation

All recipients will be required to submit regular progress reports and a final report to Energy Commission staff as specified in the applicable solicitation document and/or funding award agreement.

L. Program Extensions

Project extensions are not permitted. All projects and activities funded pursuant to these *Guidelines* must be completed and funds must be expended by the date specified in the funding award agreement. If the Energy Commission determines that insufficient progress is being made towards implementing the project, and that there is significant risk that all funds will not be expended by the date specified in the funding award agreement, the funding award agreement will be terminated or amended and, if time allows, the funds will be reallocated as specified in the Disbursement and Reallocation of Funds section below.

M. Project Changes

Changes to the project's work statement, including changes to specific line items in the project budget, may be approved by the ARRA Committee under the following conditions:

1. Such changes must not substantially alter the original scope or purpose of the project as proposed in the application and as approved by the ARRA Committee and/or full Energy Commission; and
2. Such changes must not substantially reduce the value of the project. Unless indicated otherwise in the funding award agreement, all changes are subject to necessary approval by the ARRA Committee and/or the full Energy Commission. The recipient shall notify Energy Commission staff in writing and obtain either ARRA Committee or full Energy Commission approval, in advance of implementing any such changes in accordance with the terms and conditions of the funding award agreement.

N. Disbursement and Reallocation of Funds

For the Municipal Financing Program, the California Comprehensive Residential Building Retrofit Program, and the Municipal and Commercial Building Targeted Measure Retrofit Program areas, the Energy Commission will seek to establish a contracting process with as much flexibility as possible so that additional funds can be allocated to successful program awards without the requirement of a formal contract amendment. Each funding award agreement may be approved by the Energy Commission for a maximum funding level. While each agreement may be approved for a theoretical maximum, the Energy Commission will encumber only a portion of the funds into each agreement at the beginning of the contract.

The Energy Commission will complete Critical Program Reviews[7] for each program award at least twice within the first eighteen months of the funding award agreements to determine the

[7] A Critical Program Review (CPR) is an important contract management tool used by the Energy Commission. A CPR is a meeting between the Contract Manager and the Contractor to review program progress and discuss program schedule and budget. The Energy Commission uses CPRs to redirect

level of additional funding each program award should receive. The initial ranking of the programs based on an evaluation of the ability to spend additional funds beyond the initial award will also be considered in the disbursement decisions. In this way, the Energy Commission will allocate the $95 million dollars to achieve the most benefit within the approximately two-year time available between contract awards and the ARRA SEP project implementation deadline. This fund disbursement approach, through which funds are encumbered for contracts based on program performance, should minimize the amount of fund reallocation changes to funding already encumbered in a funding award agreement.

Funding may be reallocated as necessary to best achieve the overall goals of ARRA and state law. Funds identified in a solicitation may be reallocated and used for another purpose only after the solicitation has closed and awards have been made or the solicitation has been modified or cancelled. The Energy Commission may reallocate funds in a funding award agreement if the Energy Commission determines that insufficient progress is being made towards implementing the project, and that there is a significant risk that all funds in the agreement will not be expended by the date specified in the funding award agreement. The Energy Commission may terminate or amend the funding award agreement to accomplish this reallocation. This reallocation may also require Department of General Services' approval.

O. Program Evaluation, Project Monitoring, and Verification

Proper stewardship surrounding the administration, reporting, accounting and transparency of ARRA funds is essential in the Energy Commission's administration of the ARRA SEP. Federal and state agencies, the Energy Commission, or their respective agents will audit a sample of funding recipients to verify compliance with the ARRA reporting requirements, these *Guidelines* and the solicitation document, and to measure and verify appropriate use and expenditure of ARRA funds, as well as validate electricity and fuel use reductions. In addition, the Energy Commission will monitor the progress of funding award agreements and evaluate the effectiveness of particular projects.

P. Random Audits, Record Retention and Access to Facilities

Upon written request from the Energy Commission, the recipient and any sub-recipients shall provide detailed documentation of all expenses, allow the Energy Commission or its agent access to facilities and records, and allow the Energy Commission or its agent to collect data needed to measure and verify electricity and fuel reductions (this may include but is not limited to utility bills, metering data, facility equipment surveys, information on operational practices and site occupancy levels). Further, if requested, the recipient and sub-recipients must provide

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contract tasks, schedules and budgets as necessary to achieve program objectives and in accordance with the terms and conditions of the funding award agreement.

the Energy Commission or its agent associated data from a period prior to the start of the project as necessary to establish baseline energy and/or fuel use.

In addition, the recipient and any sub-recipients must allow any representative of the Energy Commission, any other agency of the state, or the federal government, to have reasonable access to and the right of inspection of all records and transactions that pertain to the project and to the recipients' or sub-recipient's energy use and to interview any officer or employee of the recipient or sub-recipient or vendor regarding transactions during the term of the agreement and for a period of three years after the ending term of the of the Energy Commission's federal grant agreement, which funds the project, or the end of the funding award agreement, whichever is longer. Further, the recipient must agree to incorporate an audit of this project within any scheduled audits, when specifically requested by the Energy Commission or the State of California.

The recipient and sub-recipients shall retain all project records (including financial records, progress reports, payment requests, and electricity and fuel use reduction documentation) for a minimum of three years after 1) the end term of the Energy Commission's federal grant agreement that funds the project, 2) the project has been formally concluded, or 3) the final payment is received, whichever is later, unless otherwise specified in the funding award agreement.

Q. Use and Disclosure of Information and Reports

The Energy Commission, other state agencies, the federal government, or their respective authorized agents may use any information or records submitted to the Energy Commission or obtained as part of any audit pursuant to these *Guidelines* to determine eligibility and compliance with these *Guidelines,* applicable law, or a particular funding award agreement, to evaluate the pertinent program or program elements, and to prepare necessary reports as required by law. The information and records include, but are not limited to, applications for funding, invoices for award payments, and any documentation submitted in support of said applications or invoices.

Information and records submitted pursuant to these *Guidelines* will be disclosed to other governmental entities and policing authorities for civil and criminal investigation and enforcement purposes. This information and records may also be disclosed to the public pursuant to the California Public Records Act (Government Code Section 6250, et seq.). Personal information, such as taxpayer identification or social security numbers, will not be disclosed to the public.

Applicants should note that ARRA funds are subject to information disclosure requirements through the federal Office of Management and Budget as well as other federal agencies to ensure transparency. Information concerning the identity of recipients and the amount of payment of awards is public information, and will be disclosed as part of the ARRA transparency requirements and in accordance with the California Public Records Act. This

information, along with other public information describing the funding recipients, may be disclosed to members of the public to educate them and encourage further program participation. The information may be disclosed through the Energy Commissions website, another state agency's website, a federal government website, or through other means.

If, as part of any audit, the Energy Commission requires a recipient to provide copies of records that the recipient believes contain proprietary information entitled to protection under the California Public Records Act or other law, the recipient may request that such records be designated confidential pursuant to the Energy Commission's regulations for confidential designation, Title 20, California Code of Regulations, Section 2505.

R. Reconsideration and Appeal

Applicants may appeal the denial of a grant or loan award pursuant to this section upon a showing that factors other than those described in these *Guidelines* were applied by the Energy Commission in denying an award.

1. Committee Reconsideration

   Any applicant that applied for but did not receive a funding award may petition the ARRA Committee for reconsideration. The petition for reconsideration shall be in writing and shall be submitted, together with any supporting documentation, to the ARRA Committee at the following address within 15 days of the date of the notice of funding denial:

   California Energy Commission
   ARRA Committee
   1516 9th Street, MS-31
   Sacramento, CA 95814-5512

   The petition shall specify the basis for the appeal, state why the applicant believes the funding denial is improper given the eligibility criteria for the funding as specified in these *Guidelines* and the applicable solicitation, explain any supporting documentation filed with the petition, identify the legal authority or other basis supporting the petitioning party's position, and identify the remedy sought.

   Within 45 days of receipt of a complete petition, the ARRA Committee, in its discretion, shall either issue a decision based on its consideration of the petition and a response by Energy Commission staff, or schedule a hearing to consider the petition. If a hearing is scheduled, the applicant shall be notified of the hearing date and any additional information the petitioner is directed to submit. This notice shall be given at least 15 days before the Committee hearing date. The ARRA Committee may direct the applicant and Energy Commission staff to attend the Committee hearing.

The ARRA Committee shall provide the applicant with a written decision on the petition within 45 days of holding the hearing. If the applicant disagrees with the ARRA Committee's decision, the applicant may appeal the decision to the Energy Commission under subsection 2 of this section.

2. Energy Commission Appeal

The applicant may appeal the ARRA Committee's decision by filing a letter of appeal with the Energy Commission within 15 days of the date of the Committee's decision. The letter of appeal shall state the basis of the applicant's appeal, explain why the Committee's decision is unacceptable, and provide any supporting documentation. The letter of appeal, supporting documentation, and a copy of the ARRA Committee's decision, shall be sent to the Energy Commission's Public Adviser at the address below:

California Energy Commission
Public Adviser's Office
1516 9th Street, MS-12
Sacramento, CA 95814-5512

Within 30 days of receipt of the letter of appeal, the Public Adviser shall coordinate with Energy Commission staff and will arrange for the appeal to be presented to the Energy Commission at a regularly scheduled Business Meeting. The Public Adviser shall inform the applicant in writing of the Business Meeting date and the procedures for participating in the Business Meeting. The applicant shall be responsible for presenting the appeal to the Energy Commission during the Business Meeting. Unless the Energy Commission determines otherwise during the course of the Business Meeting, a determination on the appeal shall be rendered during the Business Meeting.

S. Enforcement Action

1. Recovery of Overpayment

The ARRA Committee, with the concurrence of the Energy Commission, may direct the Energy Commission's Office of Chief Counsel to commence formal legal action against any recipient or former recipient to recover any portion of a funding award the Committee determines the recipient or former recipient was not otherwise entitled to receive.

2. Fraud and Misrepresentation

The Energy Commission or the ARRA Committee may initiate an investigation of any recipient which it has reason to believe may have misstated, falsified, or misrepresented

information in applying for a funding award, invoicing for a funding award payment, or in reporting any information as required by these *Guidelines*. Based on the results of the investigation, the Energy Commission or ARRA Committee may take any action it deems appropriate, including, but not limited to, cancellation of the funding award, recovery of any overpayment, and recommending the initiation of an Attorney General investigation and prosecution pursuant to Government Code sections 12650, et seq., or other provisions of law.

The State of California, through the Attorney General's Office or other state agency, may independently investigate any recipient and bring actions for fraud, misrepresentation, or misuse of SEP funds as appropriate.

3. Federal Action

The Federal government, through various departments, including, but not limited to, DOE and the U.S. Department of Justice, may independently investigate any recipient and bring actions for fraud, misrepresentation, or misuse of SEP funds as appropriate.

T. Guideline Authority

These *Guidelines* are adopted pursuant to Public Resources Code Section 25462, subdivision (a), which authorizes the Energy Commission to adopt guidelines governing the award, eligibility, and administration of funding for the SEP pursuant to ARRA. The guidelines adopted pursuant to this authority are exempt from the rulemaking requirements of the Administrative Procedures Act, as specified in Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code. These *Guidelines* may be revised pursuant to Public Resources Code Section 25462, subdivision (a).

U. Interpretation

Nothing in these *Guidelines* shall be construed to abridge the powers or authority of the Energy Commission or any Energy Commission-designated Committee as specified in Division 15 of the Public Resources Code, commencing with Section 25000, or Division 2 of Title 20 of the California Code of Regulations, commencing with Section 1001.

V. Effective Date of Guidelines

The *Guidelines* shall not be effective until adopted by the Energy Commission at a publicly-noticed meeting. The Energy Commission will post the draft proposed and final adopted *Guidelines* on its web site at:

http://www.energy.ca.gov/recovery/sep.html

Applicants may also obtain the *Guidelines* by contacting:

sep@energy.state.ca.us

W. Substantive Changes in Guidelines

Substantive changes to these *Guidelines* may be made by approval of the Energy Commission upon the recommendation of the ARRA Committee. Substantive changes shall take effect once adopted by the Energy Commission at a publicly noticed meeting with no less than 15-days public notice.

X. Non-Substantive Changes in Guidelines

Non-substantive changes to these *Guidelines* may be made upon the recommendation and approval of the ARRA Committee. Non-substantive changes shall take effect 15 days after the ARRA Committee has approved and publicly noticed the non-substantive changes. Non-substantive changes include, but are not limited to the following:

1. Changes to the formatting of any application, invoicing, reporting or other form.
2. Changes in the information required in any application, invoicing, reporting, or other form.

CHAPTER II:
Municipal Financing Program
(AB 811 – Type Programs)

A. Program Summary

California law allows the legislative bodies of cities, counties, or groups of cities and counties in California to create a municipal financing program in which property owners may enter into contractual assessments to finance the installation of energy efficiency or distributed renewable energy generation improvements that are permanently fixed to residential (including multi-family), commercial, industrial, or other real property. Under these municipal financing programs property owners repay the assessments with their property taxes, and the lien associated with the assessment are given priority over previously-recorded private liens (such as a mortgage).
These municipal financing programs are a potentially important tool in the State's goal to increase energy efficiency and renewable energy generation in California, and they will decrease or eliminate the upfront costs property owners must normally incur in installing such improvements.

The purpose of the Energy Commission's Municipal Financing Program is to assist cities, counties and groups of cities and counties in implementing or continuing their own municipal financing programs. The Energy Commission will work with local governments to ensure that their programs are structured to be cost-effective, sustainable, transparent and able to achieve the greatest energy savings for the amount invested. The Municipal Financing Program will provide funds and support in the manner that will best help achieve those goals.

Local governments, including Joint Power Authorities, awarded funds under the Municipal Financing Program will administer their programs, oversee quality control, and report to the Energy Commission on progress, effectiveness and energy savings. The local governments must initiate their municipal financing programs using the process described in California Streets and Highways Code Sections 5898.20 - 5898.32 and/or other applicable laws, perform any legal validation actions, secure program funding, and administer the program or contract with a turnkey service to administer the program on their behalf.

B. Program Structure

Requirements

Proposals for the Municipal Financing Program *must* include the following:

1. Financing Plan

a) To insure the stability and success of the municipal financing program, the Energy Commission requires submittal of detailed information regarding the financing of the program. The financing plan must, at a minimum, answer the following questions (if this information is not yet available for an applicant applying for funds, the applicant must answer the questions to the extent possible, and the applicant must also include both a discussion of what will be done to complete the answers and an estimated schedule of when this information will be available):
b) Will the applicant issue bonds or contract with a bank or other lender to issue financing for each property owner?
c) If bonds will be issued:
    i. Is a source of interim financing available?
    ii. What is the applicant's historical bond rating (if the applicant's program spans multiple cities and/or counties, applicant should provide the historical bond rating for each and, if possible, the estimated bond rating for the program)?
    iii. What is the anticipated total dollar amount at which the financing will go to a bond sale?
d) Has a letter of credit been issued by a lender?
e) What interest rate will be offered by property owners?
f) Is the nearest interest rate fixed or variable?
g) Will property owners be charged any fees to apply and/or participate in the program?
h) What are the program's minimum and maximum financing amounts?
i) How long is (are) the financing payback(s)?
j) Will financing dovetail with other existing or potential energy efficiency and renewable energy financial incentives (i.e., California Solar Initiative, utility rebates, tax incentives)?
k) Has the applicant ever filed for bankruptcy?
l) What funds and resources, if any, is the program proposing to leverage with the ARRA SEP funds?
m) How does the applicant's program propose to transition to self-sufficiency after the cessation of ARRA SEP funding?

2. Uses for ARRA SEP funds

The Energy Commission intends to use the ARRA SEP funds in a manner that will best help local governments establish or continue their municipal financing programs. The ARRA SEP funds should be used to increase lender confidence, lower interest rates, and increase bond ratings to make financing attractive to homeowners, and lessen the financial burden of local governments. The following are potential uses for the ARRA SEP funds:

a) Cover program start-up costs, including but not limited to legal services and financial advisor costs;
b) Cover some ongoing program costs (such as staffing, market surveys, marketing and tracking and reporting energy savings);
c) Home energy ratings, energy audits and the investigation phase of building commissioning projects;
d) Interim financing (warehouse line of credit);
e) Interest rate buy-down; and
f) Homeowner grants (for low income homeowners or energy efficiency retrofits).

Applicants must indicate which of the above uses (multiple uses may be chosen) for Energy Commission funds are being proposed for their programs. Proposals must include a detailed description of the effects expected as a result of the addition of these funds. This description should include the effect on application and other participant fees, interest rates, bond ratings, your general fund, leveraging of private and other funding, job creation and retention, energy use, and greenhouse gas emissions.

3. Eligible Improvements

Programs requesting funds from the Energy Commission's Municipal Financing Program must:

a) provide financing for both the Second and Third Tiers, of the California Comprehensive Residential Building Retrofit Program for residential customers as specified in Chapter III of these SEP *Guidelines*, ensuring that projects meet the requirements for either the Second or Third Tiers (note that municipal financing programs may determine that water efficiency improvements may or may not be eligible); programs should provide a strategy for how their program will strongly transition towards Third Tier approaches within one year of award;
b) include the permanent improvements eligible for the Municipal and Commercial Building Targeted Measure Retrofit Program as specified in Chapter IV of these SEP *Guidelines*; and
c) pursue measures consistent with the state's loading order.

Additional measures can be proposed by applicants for consideration by the Energy Commission. Municipal Financing Program measures must have previously demonstrated cost-effective energy savings in numerous applications and be permanently affixed to the property. All proposed eligible measures, including any water efficiency improvements, must be enumerated in the proposal, as well as an explanation of why measures not listed as eligible for the California Comprehensive Residential Building Retrofit Program or the Municipal and Commercial Targeted Measure Building Retrofit Program should be approved by the Energy Commission as part of the Municipal Financing Program. All measures that are eligible for financing

must be installed in conformance with state and local building codes, licensing laws and permitting requirements.

Whole-house retrofits are essential if the State is to meet its existing residential energy efficiency and climate change goals. Proposals that include requirements or incentives for whole-house retrofits are strongly encouraged.

4. Loading Order

To encourage the greatest possible benefit for the money invested, municipal financing programs must require, and also may incentivize, property owners to install energy efficiency improvements in advance of on-site solar electric (photovoltaic) generation or other on-site renewable energy generation. Installing energy efficient improvements first will lead to:

a) Installation of smaller and less costly solar electric systems;
b) Meeting a greater portion of the building's electricity load with the same size solar electric system; and
c) Maximizing energy savings for combined energy efficiency and solar electric projects, while providing potential positive cash flow for the total project.

Proposals will be evaluated for this criterion on the strength of the energy efficiency requirements or incentives proposed, and on the likelihood that the majority of program dollars will fund energy efficiency measures.

The use of ARRA SEP funding will be awarded on the condition that projects that result from financing that was supported or facilitated by ARRA SEP funding achieve a minimum of 10% reduction in total building energy use through energy efficiency in order to qualify for financing for on-site renewable energy projects. The 10% reduction shall be determined using the Home Energy Rating System (HERS) Phase II index for residential buildings. The Energy Commission may approve other methods for determining the 10% reduction as it determines necessary. The Commission strongly encourages applicants to require greater than a 10% total building energy use savings before on-site renewable energy is accepted for financing, and will consider that in the evaluation criteria for ARRA SEP funding proposals.

5. Home Energy Ratings, Energy Audits and Commissioning Investigations

For residential customers, the requirements of the California Comprehensive Residential Building Retrofit Program must be met to qualify for ARRA SEP supported financing, including, for third tier measures, providing California Home Energy Ratings or California Energy Audits, as specified by the California Home Energy Rating Program (HERS II). ARRA SEP funds may be used to cover the costs of the California Home

Energy Ratings or California Energy Audits. For municipal and commercial customers, financing shall be made available for the targeted measures approved by the Energy Commission. However, as stated under "Eligible Improvements," other measures for residential, municipal and commercial buildings may be eligible for financing, if approved by the Energy Commission. In addition, municipal and commercial customers will benefit from energy audits or the investigation phase of building commissioning to evaluate appropriate and comprehensive energy efficiency retrofits and operational improvements prior to installation of on-site solar electric generation. ARRA funds may be used to cover the costs of these energy audits or building commissioning investigations.

These measures will help property owners make well-informed decisions and lead to more focused and cost-effective retrofits. Documentation of the HERS Rating, Energy Audit or the investigation phase of building commissioning educates and informs realtors, lenders, appraisers and potential buyers at time of sale of the building about the improvements that were made to the property, thereby substantiating the value added to the property and lien that remains with the property. HERS ratings, Energy Audits and commissioning investigation costs should be included as project costs for financing to the extent that they are not covered by ARRA SEP funds or through partnership with a utility.

Proposals for the Municipal Financing Program must include a description of how residential audits or ratings will be provided consistent with the California Home Energy Rating Program, and how commercial energy audits or the investigation phase of building commissioning will be conducted and funded as part of the Municipal Financing Program.

6. Legal Considerations

Applicants must describe current and planned progress toward clearing any legal concerns regarding their programs. This includes the status of future, pending, or already obtained unqualified legal opinions and validation actions.

Mortgage provisions restricting the voluntary addition of a priority lien by the property owner are sometimes included in the contract between a lender and borrower. These provisions are not present in all mortgages. Applicants must indicate how their programs will address such provisions for residential and commercial property owners. This may include requiring notification and/or approval from the primary mortgage lender.

All reporting requirements related to ARRA sub recipient and vendor reporting and tracking must be adhered to as well as any other state and federal reporting requirements.

7. Sustainability

Programs funded through the Municipal Financing Program must demonstrate sustainability and long-term viability. Sustainability may be achieved through the establishment of revolving financing funds or other methods. Applicants must describe the methods the program will use to ensure its sustainability. This description must include an explanation of how additional funds from the Energy Commission will aid the program to assure sustainability. Proposals that include a revolving financing fund must specify the following:

a. Whether an increased interest rate will be used to sustain the revolving fund;
b. How often additional capital will be infused into the revolving fund;
c. What percentage of the total amount of the fund this addition will constitute.

8. Quality Assurance

Energy efficiency and distributed renewable energy generation improvements funded through a municipal financing program must be installed properly and in good working order to ensure the cost-effectiveness, energy savings and reputation of the program.

Programs awarded funds through the Energy Commission's Municipal Financing Program must have a means of ensuring and demonstrating the quality of installed energy improvements. Contractors installing improvements must comply with state and local licensing laws, obtain building permits, and properly field-verify any measures for which Title 24 Building Energy Efficiency Standards field verification protocols have been established.

Proposals must describe the above and any additional quality assurance measures that are or will be enacted by the program.

9. Documentation of Energy Savings

Because one of the metrics of a program's success is the amount of energy saved, a quantifiable measure of this savings must be demonstrated through the applicant's program.

An applicant's municipal financing programs should require where possible that participants submit electricity and gas bills for a period of one year before and two years after program participation to demonstrate the resulting energy savings, and the program administration should document this information in a report. Such data will not always be available, for example when a building purchaser or new commercial building tenant is the participant. When hourly data is available, access to that data should be provided. Proposals should state the span of time for which energy bills will

be required, and provide details of how energy savings will be documented. Applicants must describe how energy savings will be documented when a building purchaser or new commercial building tenant is the participant, and provide a description of how savings will be documented through a post-installation HERS rating or energy audit or other means.

10 Program Transparency and Reporting

ARRA funds have stringent requirements regarding transparency, which any programs funded through the Energy Commission's Municipal Financing Program must follow. Applicants must comply with federal reporting obligations, as specified in the federal ARRA and SEP guidelines.[8]

The Energy Commission will require, at a minimum, the following information:

a) Copies of any consultant contracts
b) Description of the roles of all parties involved in the program
c) Any publicly available legal opinions and judicial validation decisions
d) Results of market research/surveys
e) Detailed program startup and ongoing staffing, marketing, and other continuing program costs
f) Aggregate details of financing made to participants : dollar amount, types of improvements financed, etc.
g) Aggregate details of bonds sold, if applicable
h) A Progress Report due May 1, 2010
i) A Report providing a program description, problems encountered and how they were overcome, administrative costs, documented energy savings, detailed description of the effects of Energy Commission funding on your program (including additional funding leveraged, interest rate and bond rating changes, etc.), description of quality assurance measures, estimated number of jobs created/retained (using the method described in section C.2 below), and an aggregate of financing information, broken down into groups according to the type of energy retrofit, and bond sale information, if applicable.
j) Any additional requirements specified in these SEP Guidelines or the solicitation document.

[8] See **http://www.energy.ca.gov/recovery/documents/SEP_Recovery_Act_Guidance_DE-FOA-00000521.pdf** and **http://www.whitehouse.gov/omb/assets/memoranda_fy2009/m09-21.pdf**.

Additional Desired Elements

1. Leveraged Funds and Resources

   Applicants applying for funds under the Municipal Financing Program should detail any sources of leveraged funds or resources that they can provide. Leveraging funds and resources is not a requirement for consideration, but it will be included in the scoring criteria for proposal evaluation.

   Proposals also should include a description of additional programs, tax credits, and other incentives that will be used in conjunction with the proposed municipal financing program to affect the greatest energy and cost savings to both the program and the consumer. These may include the California Solar Initiative, federal energy tax credits, and utility rebates.

2. Property Qualifications

   Since financing is tied to the property and not the borrower, municipal financing programs to date have tended to require screening processes that generally have been less extensive than those for traditional loans. Given that the subprime lending crisis has been a major contributor to the current economic downturn, a major concern for both local governments and lenders in the development of municipal financing programs has been the potential for participants in a municipal financing program to incur more debt than they are able to repay.

   To guard against this possibility, municipal financing programs should screen property owners for some basic level of creditworthiness. This may include requiring a specific loan-to-value ratio, ensuring that property taxes have been paid in full and on time, or determining that applicants do not owe more than the value of the property. An applicant's proposal should include these and any additional qualifications property owners must meet to participate in the applicant's program.

3. Regional Approach

   The Energy Commission encourages collaboration among communities, on a county-by-county basis or through a joint powers authority, to create a larger and more effective municipal financing program. Municipal financing programs that operate on a countywide or regional scale will have the greatest opportunity for economies of scale and ease of pooling financing if bond sales are planned. Larger programs will have lower administrative costs while reaching more property owners throughout the State.

C. Evaluation Criteria

The following criteria will be used for evaluating proposals in response to the solicitation:

1. Workforce Development – extent to which workforce training is incorporated into the applicant's program.
2. Total Job Creation and Retention – Job estimates should be based on the Council of Economic Advisers' *Estimates of Job Creation from the American Recovery and Reinvestment Act of 2009*, May 2009.[9] The total investment in the program shall be divided by $92,000 to estimate the number of direct jobs created. The total investment should include SEP funding and all leveraged funds.
3. Economically Disadvantaged Areas[10] – extent to which applicant's program is targeted to create jobs and enhance the economy in economically disadvantaged areas of the state that have been particularly impacted by California's housing and economic crisis.
4. Time Criticality – extent to which applicant establishes certainty that the ARRA SEP funding will be expended in the completion of actual energy retrofits by March 31, 2012, and will provide progress reports so that resources can be reallocated as necessary by July 1, 2010.
5. Program Design –
   a) Financing Plan – extent to which applicant provides a feasible plan, with reasonably low interest rates, administrative costs and participant fees; progress of the financial preparation for the municipal financing program to launch or continue;
   b) Uses for Energy Commission Funds – extent to which applicant's proposed uses for Energy Commission funds maximize the energy savings, leverage and cost effectiveness of the program;
   c) Leveraged Funds/Resources – extent to which applicant's program leverages Energy Commission 's SEP funds, as a percentage of total program cost ; use of additional programs, tax credits, and other incentives in conjunction with the proposed municipal financing program;
   d) Eligible Improvements – extent to which the applicant's program meets the eligibility requirements for the Second and Third Tiers of the California Comprehensive Residential Building Retrofit Program, provides requirements and/or incentives for whole-house retrofits for residential customers, and includes the targeted measures of the Commercial Building Targeted Measure Retrofit Program;
   e) Loading Order - whether applicant's program requires energy efficiency that will achieve at least a 10% reduction in total energy use in advance of on-site solar electric or other on-site renewable generation and provides incentives or other

[9] See **http://www.recovery.gov/sites/default/files/Job-Years_Revised5-8.pdf**

[10] Economically disadvantaged areas shall be determined by the unemployment rate from the Employment Development Department Labor Market Information Division, Report 400 for the Month of June 2009. **http://www.labormarketinfo.edd.ca.gov/**.

mechanisms to maximize energy efficiency; extent to which applicant requires greater than a 10% reduction in total energy use through energy efficiency in advance of on-site solar or other renewable generation;

f) Conformance with California Law – extent to which applicant insures compliance with California contractor licensing law, pulling of building permits, compliance with Title 24 field verification protocols and procedures (HERS I), compliance with HERS II regulations for whole-house home energy ratings and energy audits; note that DOE *Guidelines* for the ARRA SEP Program place priority on enforcement of state building energy codes;

g) Home Energy Ratings, Energy Audits, and Building Commissioning – extent to which applicant's program describes how residential measures will be provided consistent with the California Home Energy Rating Program, and how commercial energy audits and benchmarking will be conducted and funded as part of the Municipal Financing Program;

h) Property Qualifications – extent to which applicant's program reasonably screens participants to ensure that the properties proposed are appropriate candidates for the applied-for energy retrofits, in terms of value and timely payments;

i) Legal Considerations- extent to which applicant has completed a successful validation action and/or an unqualified legal opinion regarding their program or the extent to which the applicant has planned these processes and documents the reasonable likelihood of success; extent to which program works with lenders that have mortgage provisions forbidding voluntary priority liens;

j) Sustainability – extent to which applicant's program will create lasting changes in the market, enabling the accomplishment of California's climate change and energy savings goals and continue to stimulate job creation and retention and revitalize the economy; reasoning and evidence presented in the applicant's proposal demonstrating sustainability;

k) Regional Approach – extent to which applicant's program is a collaborative effort with participation with multiple communities;

l) Quality Assurance – extent to which applicant's program complies with the quality assurance measures laid out in the California Comprehensive Residential Building Retrofit Program *Guidelines*; any additional quality assurance measures;

m) Documentation of Energy Savings – extent to which applicant plans to clearly measure and report on energy reductions achieved by program participants; length of time before and after program participation for which utility bills will be required; and

n) Program Transparency and Reporting – extent to which applicant explains how it will comply with the Energy Commission's and the DOE's transparency and reporting requirements.

6. Program Cost Effectiveness – Proposals must provide information regarding the energy saved per State Energy Program dollar invested. An applicant's program must achieve no less than 10 million source Btus saved per $1,000 spent; dollars spent include only the

ARRA SEP funds; savings are those resulting from the total dollars spent, including leveraged funding.

Additional evaluation criteria may be specified in the solicitation document.

D. Eligible Applicants

Eligible applicants include cities, counties, or groups of cities and counties in California that are in the process of establishing or have already established a municipal financing program for the purposes of funding energy efficiency and on-site solar electric or other on site renewable energy generation improvements in accordance with California Streets and Highways Code Sections 5898.20 - 5898.32 and/or other applicable municipal financing laws. The scope of eligible applicants may be expanded with changes in the law. The Municipal Financing Program will accept applications from any entity authorized under California law to establish a municipal financing program of the types described in this Chapter.

CHAPTER III: California Comprehensive Residential Building Retrofit Program

A. Program Summary

The purpose of the California Comprehensive Residential Building Retrofit Program is to create jobs and stimulate the economy through a comprehensive program to implement energy retrofits in existing residential buildings[11]. The Program will work with regional groups of local governments, utilities, community colleges, national and state energy and affordable housing programs, and private and public energy and building contracting experts to deliver a tiered approach to put Californians back to work. The Program will focus on deploying re-trained construction workers and contractors and youth entering the job market to improve the energy efficiency and comfort of California's existing housing, creating in the process a sustainable energy workforce. In addition to pursuing energy retrofits in market-rate housing, the Program will coordinate with and leverage affordable housing and neighborhood stabilization programs to bring the advantages of energy efficient housing to under-served, economically disadvantaged populations.

The California Comprehensive Residential Building Retrofit Program is intended to effectively contribute to California's ambitious energy savings and greenhouse gas emission (GHG) reduction goals established in the Energy Action Plan, the California Public Utilities Commission's (CPUC) Strategic Plan and the California Air Resources Board's (ARB) AB 32 Scoping Plan. These goals call for close collaboration between the Energy Commission, CPUC and ARB and coordination of the program delivery actions of each agency, including ARB climate change regulatory actions, Energy Commission establishment of standards and programs for residential retrofit (including the HERS II regulations for whole-house home energy ratings and energy audits), and the CPUC's direction to investor owned utilities (IOUs) regarding rebates and home performance programs aimed at dramatically exceeding past utility program accomplishment of comprehensive residential retrofits.

[11] The California Comprehensive Residential Building Retrofit program is targeted at all residential buildings, including single family homes, low-rise multi-family buildings and high-rise multi-family buildings. Where these Guidelines refer to "house" or "homes," those terms are intended to include both single family homes and multi-family buildings. The Energy Commission recognizes that multi-family buildings may provide opportunities for energy efficiency improvements that are uniquely applicable to multi-family buildings, and intends to enable the use of such energy efficiency improvements in those buildings.

B. Program Structure

The California Comprehensive Residential Building Retrofit Program will use a three tiered delivery approach to jump start the use of stimulus funds, enabling the use of 1) entry level labor and 2) single trade contractors with limited training in energy efficiency retrofits, and launch training and provide support to develop the highly skilled workforce that will enable the transition to 3) the whole-house, deep saving retrofits that are critical to achieving California and national energy and climate change mitigation goals.

The three tiers are:

Simple Checklist Approaches:

1) First Tier – Low-cost items that can be determined through visual inspection by a minimally trained person (low savings per home);
2) Second Tier – Measures that require installation by a specialty contractor (e.g., HVAC or Insulation Contractor) who can be trained in a short time to provide quality installation of measures within the scope of their specialty contractor license in conformance with the California Building Energy Efficiency Standards (Title 24, Part 6 and related Part 1 requirements) using field verification protocols specified by the Standards Reference Appendices (moderate savings per home);

Whole-house Retrofits Approach:

1) Third Tier – HERS II Rater based approach with Raters and building performance contractors trained to accomplish deeper, comprehensive retrofits (high savings per home).

(Refer to section D. of this Chapter for the measure checklists for each Tier.)

The first two tiers are based on simple checklist approaches that can be developed quickly and carried out with only limited training. The third tier is a deeper, comprehensive, whole-house retrofit approach that will rely on either 1) a Home Energy Rating System Program (HERS) Phase II Rater working in conjunction with specialty contractors to achieve whole-house retrofits or on 2) a HERS II Rater that is specially trained as a building performance contractor and is able to both perform the energy audit/rating needed to identify deep retrofits and supervise the installation through completion.

The Tier Strategy

The Third Tier is the preferred Tier for California Comprehensive Residential Retrofit Program funding. It is intended to move California residential retrofit efforts as rapidly as possible to a whole-house approach, enabling measures to be considered for their interactive benefits and to

facilitate reaching the deeper energy efficiency retrofits required to meet California energy policy. However, the Third Tier requires more extensive training and development of new market capability. The First and Second Tier are intended to be transitional approaches to immediately expand the delivery of conventional measures through incremental training to entry level persons and to contractors focusing on quality installation approaches and providing information to homeowners that will encourage movement towards the higher Tier, deeper savings approaches.

The First Tier is an optional level that is not required to be provided by every applicant. It is possible that First Tier information could be provided through a combination of self-assessment, (potentially including online assessment tools), in-person and neighborhood workshop delivery approaches. The Second Tier also is not absolutely required if applicants demonstrate that relying solely on the Third Tier approach will lead to rapid start-up and delivery of retrofits recognizing the short time window that the ARRA funds are available and the more demanding training and program delivery needed by the Third Tier approach. Applicants are encouraged to develop Third Tier approaches as a fundamental program element, and provide a strategy for how their program will strongly transition towards Third Tier approaches over the course of the period that ARRA SEP funds are available.

First Tier

The First Tier checklist would be used by entry level persons with limited training, such as high school students/graduates entering the workforce or neighborhood organizations active in the community who are branching out to helping get simple energy saving items done in the local area. They would focus on simple measures that work in every home, such as installing CFLs, low flow showerheads and faucet aerators, identifying appliances that are near the end of their useful life and are good candidates for replacement with Energy Star/Consortium for Energy Efficiency (CEE) appliances. They may also provide advice to homeowners about behavioral measures that can be taken, such as lowering hot water temperatures to 120° F, properly operating windows for ventilation and free cooling and properly operating shades for keeping heat in during the winter and out during the summer. They would provide information fact sheets about other programs and resources in the community, including water conservation programs and utility rebates, and about do-it-yourself (D-I-Y) projects that the homeowner could consider. A major goal of the First Tier checklist approach is to encourage residential building owners to move to the more extensive retrofits achieved through the Second and Third Tiers.

The First Tier is optional. California Comprehensive Residential Building Retrofit Applicants who do not choose to conduct the First Tier would be expected to explain how this level of information is provided in the region where their programs operate and how they will coordinate with these First Tier approaches to insure that the participants in those First Tier initiatives are made aware of the Second Tier and Third Tier services that are provided by the Applicant.

Second Tier

The Second Tier checklist would be used by single trade contractors (specialty contractors) who would install the materials or equipment that appear on the checklist for which they are licensed to do work and are in business to provide. These might include HVAC contractors who replace furnaces, air conditioners or water heaters nearing the end of their useful lives with high efficiency equipment; electrical contractors who install lighting fixtures with high efficiency fixtures that use CFL or LED lamps; and insulation contractors who install attic and wall insulation. These contractors would employ many people from the construction trades who have been displaced by the bottom dropping out of the housing market and the tight economy's impact on discretionary income.

Unfortunately, many of these trades currently are dominated by low-bid competition that may result in poor installation quality and construction defects, which may dramatically reduces the energy efficiency benefits of the equipment and materials they are installing. Training for the Second Tier would explain the priority measures that are on the checklist and how to raise the quality of the installation of those measures. Participating contractors would be required to comply with state and local business licensing laws and to pull building permits. Measures would be required to meet all requirements for these building alterations specified by the Title 24 Building Energy Efficiency Standards. Measures for which the Title 24 Building Energy Efficiency Standards have established field verification protocols would have to be field verified in conformance with those protocols and follow all field verification procedures established by those Standards (HERS Phase I).

The Second Tier is not absolutely required for all California Comprehensive Residential Building Program applicants. If applicants choose to not provide the Second Tier approach, the proposal must explain how their program will lead to rapid start-up and delivery of retrofits recognizing the short time window that the ARRA funds are available and the more demanding training and program delivery needed by the Third Tier approach.

Third Tier

The Third Tier approach builds on the concepts of HERS II and Home Performance with Energy Star to deliver comprehensive, whole-house energy efficiency measures that consider the interactive nature of the energy features in a home.[13] This is the level of residential retrofits that ultimately will be needed in all California homes if national and California energy efficiency and climate change goals are to be met.

The Third Tier focuses on "House as a System" principles, using diagnostic tools to insure high quality, well integrated measures that deliver not only energy efficiency and climate change

[13] The Energy Commission will assist applicants proposing programs for multi-family buildings that are outside the scope of HERS II and Home Performance with Energy Star to develop Tier III approaches that provide parallel and comparable energy audit and field verification procedures.

mitigation, but also improved comfort, indoor air quality, and safer and quieter home environments. Measures would include building air sealing verified using blowerdoors, duct sealing verified using duct blasters, efficient duct design and installation verified through airflow measurement tools, insulation quality and thermal bypass avoidance verified through infrared cameras, and proper air conditioner refrigerant charge using gauges. This is the emerging future of providing high quality, whole-house retrofits that avoid the current construction defects that are ever-present in the marketplace.

California has an excellent base of HERS raters trained by the infrastructure that the Energy Commission has set up over the past 10 years for Title 24 and the recently adopted HERS II program that the Energy Commission adopted in December 2008. California also has a strong base of building performance contractors and well-developed training curricula developed by the California Building Performance Contractors Association over the past several years. This training curricula can be easily transferred to the Community College systems and other training organizations to rapidly replicate, and be expanded upon to include ongoing mentoring, apprenticeships, and on-the-job support for contractors and workers who endeavor to deliver high quality work. This field represents a major opportunity to re-deploy and re-skill California's hardest hit industry to provide highly sustainable and valuable services.

Each California Comprehensive Residential Retrofit program applicant is encouraged to provide an active Third Tier element. An applicant's program should also provide strategies for an active transition to delivery of the Third Tier approach.

1. Local Government Consortia

   The California Comprehensive Residential Building Retrofit Program is designed to collaborate with consortia of local governments, utilities, community colleges, national and state energy and affordable housing programs, and private and public energy and building contracting experts in regions around the state that develop and operate programs to provide:

   a. targeted information to recruit residential building owners to participate;
   b. training and support for the workforce that will be deployed to provide each tier of retrofits (collaborating with the ARRA SEP Green Jobs Training Program);
   c. access to and facilitation of retrofit financing, through municipal financing programs, Energy Efficiency Conservation Block Grant EECBG funding, Department of Community Services and Development (CSD) or California Public Utilities Commission administered low-income weatherization programs, other U.S. Department of Housing and Urban Development (HUD) financing such as Energy Efficient Mortgages and other FHA and HUD financing, Energy Star financing, and utility or local program energy and water rebates and incentives;

d. support of and engagement in field verification consistent with the California Home Energy Rating System Program to insure quality installations and to monitor program results;
e. co-funding of incentives to seed programs that will be self-sustaining after the term of the ARRA funding expires.

The Energy Commission will enter into contracts with consortia of local government agencies, utilities, community colleges, national and state energy, affordable housing programs, and private and public energy and building contracting experts covering a region of the state that are prepared to actively pursue the California Comprehensive Residential Building Retrofit Program in their regions. The consortia must commit to hit the ground running to attack the residential retrofit opportunity in their region, through localized training and education of the persons involved in providing each tier of retrofits, coordination with local and regional efforts to provide financing and financial incentives, and targeted information to the homeowners in their areas to obtain program participation. Participating consortia will be encouraged to leverage and actively coordinate EECBG funding going to local governments in their regions that is targeted to residential retrofit and to commit to coordinate local municipal financing programs that already exist or are emerging in their regions with the California Comprehensive Residential Building Retrofit program. Also, participating consortia must commit to actively coordinating with other financing and incentive mechanisms at work in their communities, including in particular utility financing and incentives programs.

The Energy Commission anticipates contracting with a prime contractor that has 1) sub-contracts with other members of the consortia that are proposed to receive ARRA SEP funding and 2) memorandum of understanding with members of the consortia that will actively coordinate with the regional program but not receive ARRA SEP funding. The Energy Commission anticipates that programs will have a government agency as the prime contractor, insuring a high level of local commitment to actively pursue the program as a regional priority and closely coordinate and leverage funding available to the local government. However, the Energy Commission will consider the alternative of a different member of the consortia serving as the prime contractor. For this latter case the applicant's proposal for ARRA SEP funding must justify why the alternate prime contractor is justified and is likely to insure a more effective regional program, and must demonstrate that a high level of commitment is maintained by the government members of the consortia, including coordination with and leveraging of funding available to the local government and pursuit of the program as a regional priority.

2. Collaboration with National Programs

The California Comprehensive Residential Building Retrofit Program will collaborate with the Home Performance with Energy Star Program (HPwES)[14], administered by the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE), for achieving comprehensive, whole-house retrofits. The Sacramento Utility District (SMUD) and each of California's IOUs are in the process of developing HPwES programs. Coordination with these HPwES programs will be strongly encouraged, including training and certification of building performance contractors consistent with HPwES guidelines.

The DOE has decided to allocate stimulus funds to enable their Building America teams to provide consultation for a neighborhood approach to achieve retrofits in existing homes. The DOE's concept is that their Building America teams, who have been working for several years with production builders to achieve zero energy in newly constructed homes, are uniquely able to assist with the evaluation of older tracts of existing homes, which were built around the same time with similar features (vintages), to determine probable energy efficiency measures that would be suitable for entire neighborhoods and could be implemented with similar mass delivery approaches as those that production builders use. Participating consortia will be encouraged to coordinate with this DOE approach.

The California Comprehensive Residential Building Retrofit Program also is interested in collaboration with HUD to coordinate with the variety of stimulus funded programs that they are conducting at the local level. This will include the Neighborhood Stabilization Program, weatherization and financing programs.

3. Collaboration with State and Utility Programs

The California Comprehensive Residential Building Retrofit Program needs to be strongly coordinated with the efforts of the CPUC and ARB as discussed in the Program Summary in section A. of this Chapter. In addition, the California Comprehensive Residential Building Retrofit Program needs to be coordinated to the extent feasible with California weatherization programs administered by both CSD and the CPUC.

Applicants must establish close working relationships with utility rebate and financing programs in their region. Programs should be designed to complement and expand on utility programs rather than duplicate or compete with them. Utility funding should be treated as an important element of the funding available for encouraging program participation and encouraging residential retrofits. Attention in particular should be placed on collaboration with utility HPwES and other utility whole-house performance

[14] See **http://www.energystar.gov/index.cfm?c=home_improvement.hm_improvement_hpwes**

program initiatives. Applicants must explain how collaboration with utility programs will be accomplished and redundancy will be avoided.

4. Targeting Economically Disadvantaged Areas

One area of emphasis for the California Comprehensive Residential Building Retrofit Program will be on coordinating with local programs in areas that have been the hardest hit by the economic downturn. These areas suffer when inadequate attention to housing construction quality and energy efficiency, particularly in lower-income neighborhoods, result in high energy bills and poor comfort conditions. The residents of this housing deserve strong attention to quality retrofits that reduce their energy bill burden as much as possible.

The foreclosed property targeted by the HUD Neighborhood Stabilization Program represents a special opportunity for the California Comprehensive Residential Building Retrofit Program. These foreclosed homes that stand vacant in need of rehabilitation to return them to satisfactory market condition are particularly strong candidates for comprehensive, whole-house retrofits, and provide an ideal learning environment for apprentices or recent trainees to learn on-the-job without the added complications of the presence of homeowners and personal property. The California Comprehensive Residential Building Retrofit Program will encourage local government participants to actively coordinate with their local Neighborhood Stabilization Program.

There also is an opportunity for the California Comprehensive Residential Building Retrofit Program to collaborate with low income weatherization programs, administered either by CSD or by the CPUC. This collaboration could work to achieve comprehensive retrofits in housing receiving weatherization program assistance consistent with the Second and Third Tiers of the California Comprehensive Residential Building Retrofit Program. This collaboration could be pursued using a "neighborhood approach" whereby neighborhoods that are made up of relatively homogeneous housing types and vintages could be evaluated to identify energy efficiency measures that would be expected to be consistently appropriate throughout the neighborhood. This neighborhood approach also could be considered for the income level immediately above that which is currently eligible for low-income weatherization programs, at approximately 200 – 300% of the poverty level.

5. Coordination with Workforce Training

Fundamental to the success of the California Comprehensive Residential Building Retrofit Program is the provision of training and ongoing mentoring, apprenticeships and support for the workers necessary to deliver each of the tiers of the Program. Training of these workers will be coordinated with the Energy Commission's ARRA SEP funded Green Jobs Training Program.

The Green Jobs Training Program is working with public, private and nonprofit partners to develop a comprehensive, sustainable green workforce development program in California. This Program intends to leverage existing workforce partnerships by coordinating with state agencies, the State's Community College system and local workforce investment boards. At the local level the Green Jobs Training Program will be working with the 49 local workforce investment areas, which provide regional "one-stop centers" for assessment, training and placement for job seekers and businesses, and have long-standing relationships with local government and civic leaders, economic development agencies, labor and community organizations, and businesses. In addition this Program will be working with the State's investor owned utilities (IOUs) and publicly owned utilities (POUs), which operate energy training centers that provide education and workforce training related to energy efficiency.

Local participants in the California Comprehensive Residential Building Retrofit Program will be expected to actively coordinate with the Green Jobs Training Program. Applicants also are encouraged to coordinate with previously established workforce development and training organizations that the applicants have experience working with.

6. Funding Leveraging and Sustainability

The California Comprehensive Residential Building Retrofit Program is intended to create jobs, re-employ displaced workers, and re-train the hardest hit construction industry as a means of meeting the DOE's SEP goal of strategic intervention that causes lasting changes in the market. It is intended to jump start the effort to meet California's aggressive Energy Action Plan goals to achieve an average of 40% savings in existing California residences by 2020. The Program intends to achieve sustainability after the term of the ARRA funds through three means: 1) coordinating with local financing initiatives; 2) leveraging local funding; and 3) seeding self-sustaining training approaches that will make permanent improvements to the skill level of the people who will be needed to deliver residential retrofits.

7. Project Reporting

All requirements related to ARRA sub recipient and vendor reporting and tracking must be adhered to as well as any other state and federal reporting requirements for energy related ARRA funds.

C. Evaluation Criteria

The following criteria will be used for evaluating proposals in response to the solicitation:

1. Leveraging of funding – extent to which ARRA SEP funding is matched by and coordinated with financing, incentives and program administration resources identified and committed by the applicant, including EECBG funding targeted at residential retrofit, municipal financing, state and national program resources and financing, utility incentives and financing, and other local government and consortia resources;
2. Sustainability – extent to which the applicant's program will create lasting changes in the market, enabling the accomplishment of California's climate change and energy savings goals for comprehensive residential retrofits and continue to stimulate job creation and revitalization of the economy; reasoning and evidence presented in the applicant's proposal demonstrating sustainability; extent to which the applicant's program establishes an active Third Tier element and proposes a strategy for transitioning to the Third Tier over the time period that ARRA SEP funding is available;
3. Economically Disadvantaged Areas[15] – extent to which the applicant's program is targeted to create jobs and enhance the economy in economically disadvantaged areas of the state that have been particularly impacted by California's housing and economic crisis;
4. Total Job Creation and Retention – extent to which all resources brought together by the applicant will create jobs;
5. Total Energy, Peak Demand and GHG Emissions Reductions – extent to which all resources brought together by the applicant will result in energy savings and peak demand and GHG emissions reductions;
6. Program Cost Effectiveness – cost effectiveness in terms of energy saved per dollar invested; U.S. DOE expects that ARRA programs achieve no less than 10 million source Btu's saved per $1,000 spent; dollars spent include only the ARRA SEP funds; savings are those resulting from the total dollars spent, including leveraged funding.
7. Time Criticality – extent to which the applicant establishes certainty that the ARRA SEP funding will be expended in the completion of actual energy retrofits by March 31, 2012 and will provide accurate information monitoring implementation progress so that resources can be re-allocated as necessary by July 1, 2010
8. Conformance with California Law – extent to which applicant insures compliance with California contractor licensing law, pulling of building permits compliance with Title 24 field verification protocols and procedures (HERS I), compliance with HERS II regulations for whole-house home energy ratings and energy audits;
9. Collaboration with National and State Programs – extent to which the applicant collaborates with national and state programs, including but not limited to Home

[15] Economically disadvantaged areas shall be determined by the unemployment rate from the Employment Development Department Labor Market Information Division, Report 400 for the Month of June 2009. **http: //www.labormarketinfo.edd.ca.gov/**.

Performance with Energy Star; programs administered by HUD targeting low and moderate income housing, such as the Neighborhood Stabilization Program, Energy Efficient Mortgages and other HUD financing; Energy Commission efforts to establish programs to conduct home energy ratings at the time of sale and inclusion of ratings in multiple listing services; programs administered by the CPUC, CSD and/or ARB; the Green Jobs Training Program; extent to which the applicant's program actively coordinates with utility programs and explains how collaboration with utility programs will be accomplished and redundancy will be avoided;.

Additional evaluation criteria may be specified in the solicitation document.

D. Measure Checklists

First Tier – Low-cost Walk-through Using Newly Trained Entry Level Labor

- Provide and/or Install
  - CFLs, Low-flow Showerheads, Faucet Aerators
- Identify Appliances Near End of Useful Life that are Eligible for Utility Rebates
  - Energy Star Appliances - Refrigerator, Dish Washer, Clothes Washer
- Provide Information on Ways to Operate home to save energy, D-I-Y Measures, available Rebates, Tax Credits and Financing

Second Tier – Installation Retrofits Using Newly Trained Single Trade Contractors

- Install Attic Insulation (pull permit and comply with T-24 retrofit insulation R-value)
- Insulate Un-Insulated Walls (pull permit and comply with T-24 field verification)
- Install Floor Insulation or duct replacement (pull permit and comply with T-24 field verification)
- Complete Building Envelope Sealing (pull permit, comply with T-24 field verification)
- Complete Duct Sealing (pull permit and comply with T-24 field verification)
- Replace near end of useful life air conditioner or furnace with CEE qualifying model (pull permit, comply with T-24 refrigerant charge, airflow and duct sealing verification)
- Replace near end of useful life water heater with CEE model (solar water heating)
- Install Cool Roof when reroofing (pull permit and comply with T-24 alterations reqs.)
- Install Radiant Barrier (pull permit and comply with T-24 criteria)
- Install Energy Star Windows (pull permit and comply with T-24 alterations reqs.)
- Install WaterSense Toilets, Showerheads, Landscape Irrigation Controllers

Third Tier – Whole-House Deep Retrofits Using HERS Phase II

- California Energy Audit/California HERS Rating
- Integrated approach that addresses all of the home's energy using features, resulting not only in energy savings but also often more valued comfort, indoor air quality, combustion safety, noise attenuation benefits which increase program participation
- Meshes with approaches used for EPA/DOE Home Performance with Energy Star program; deep retrofits are required to meet Energy Action Plan goals for existing residential buildings (40% savings in every home by 2020)

- Correct Thermal Barrier Defects – these defects allow cold and hot air from the attic, crawlspace or outside to leak into the interior walls and under insulation substantially reducing the effectiveness of insulation (assisted with blowerdoor and IR camera)
- Correct Duct Leakage (assisted with ductblaster)
- Correct Insulation Defects (assisted with blowerdoor and IR camera)
- Correct Combustion Safety Hazards
- Correct Air Conditioner and Furnace Installation Defects (assisted with refrigerant charge gauges and airflow devices)
- Install all Second Tier measures determined cost effective and applicable for the house
- Install PV System that is well integrated with energy efficiency

CHAPTER IV:
Municipal and Commercial Building Targeted Measure Retrofit Program

A. Program Summary

The Municipal and Commercial Building Targeted Measure Retrofit Program will focus on achieving significant energy savings from targeted retrofit measures where opportunities exist in large numbers across the state's municipal and commercial building sectors. The targeted measures to be employed in this program must have previously demonstrated substantial energy savings compared to the existing equipment that is replaced and have broad applicability in both public and private buildings. Some examples of these targeted measures are occupancy controlled bi-level lighting fixtures for parking lots, parking garages, and exterior walkways. Other examples of measures that are suitable for this program are best practice control technologies for commercial kitchen ventilation and HVAC systems. This is not a comprehensive retrofit program that considers all cost-effective retrofit measures for each specific building application. The focus of the Municipal and Commercial Building Targeted Measure Retrofit Program is to capitalize on low risk, high return efficiency opportunities that are readily available throughout the state.

The Municipal and Commercial Building Targeted Measure Retrofit Program is applicable to a wide range of nonresidential buildings and the energy consuming processes within those buildings. A principal criterion is that through deployment of the targeted measures, the market can be transformed by convincing participating building owners and operators, as well as their building occupants, that energy efficiency can provide not only cost savings but also other valuable non-energy benefits. By replicating targeted measure retrofits widely throughout regions of the state or specific building segments, and communicating the results broadly through effective publicity, the Municipal and Commercial Building Targeted Measure Retrofit Program will raise consumer awareness and contribute to California's continued leadership in energy efficiency. Program applicants are encouraged to focus on a specific market segment and a set of technologies. The Energy Commission will select the best program proposals that, when viewed as a portfolio, meet the goal of implementing targeted measures broadly across the state.

The targeted measures proposed for deployment in the Municipal and Commercial Building Targeted Measure Retrofit Program must be market transformative, in that they must represent the best practice concepts for their specific applications, achieve substantial energy savings compared to the existing technologies being replaced, and provide non-energy benefits such as higher quality building environments and reduced maintenance costs, which will increase customer acceptance and demand.

This Program builds on the successful Public Interest Energy Research (PIER)Technology Demonstration program.[16] PIER has demonstrated several lighting and heating ventilation and air conditioning (HVAC) measures that saved 50-70% of the energy used by the existing technologies that they replace. Because these measures have been successfully deployed in numerous applications, energy savings in municipal and commercial buildings can be achieved at very low risk. Program participants can also benefit from volume purchasing agreements with technology manufacturers to minimize payback periods.

Training entry-level workers and/or professional tradespeople, as appropriate, to conduct onsite assessments for measure suitability and potential energy savings, and to retrofit installations for these targeted measures is a key aspect of this program. Partnerships with community colleges and other local or regional organizations that can target workforce development activities in economically depressed areas of the state are also encouraged.

Municipal and Commercial Building Targeted Measure Retrofit Program applicants are encouraged to develop public and private partnerships to deploy these targeted measures quickly and effectively, leveraging other existing retrofit program funds to the extent possible. . The Energy Commission intends to award Municipal and Commercial Building Targeted Measure Retrofit Program funds to program administrators who propose partnering with local governments and other public and private partners to achieve the goals of the Municipal and Commercial Building Targeted Measure Retrofit Program.

Municipal and Commercial Building Targeted Measure Retrofit Program funds can be used to create new or to supplement existing efficiency incentive programs, provide match funding for other ARRA program areas, establish volume purchasing mechanisms, develop audit and retrofit training programs, deploy marketing campaigns and/or complete the technology retrofits. Leveraged funding and use of revolving funds will improve the overall cost-effectiveness of proposed Municipal and Commercial Building Targeted Measure Retrofit Programs. If project funds have been identified but are not available at the time of the solicitation, the program applicant should explain the expected timing and availability of the future funds.

B. Program Structure

The program proposals should include the following program design features:

1. Targeted Measure Retrofits

[16] See **http://pierpartnershipdemonstrations.com**

The following measures are examples of best practice technologies that have successfully demonstrated substantial energy savings and are broadly applicable for both public and private municipal and commercial building sites.

a) Occupancy-Sensor Lighting Fixtures
    i. SMART Parking Lot Bi-Level Fixture
    ii. SMART Parking Garage Bi-Level Fixtures
    iii. SMART Pathway Lighting
    iv. SMART Wall Pack Fixtures
b) Task Ambient Office Lighting
c) Task Ambient Desk Lamp
d) Classroom Lighting
e) Refrigerator Case LED Lighting with Occupancy Sensors
f) Lighting Controls
    i. Wireless
    ii. Simplified Daylighting
g) Kitchen Exhaust Variable Air Volume Controls
h) HVAC Controls & Fault Detection
    i. Wireless - constant volume to variable air volume system conversion
    ii. Fault Detection for Packaged Units and Air Handlers

Additional targeted measures may be proposed by the Program applicants for consideration by the Energy Commission. Proposed targeted measures must be best practice technologies that have previously demonstrated cost-effective energy savings and be broadly applicable to specific building markets. Water efficiency measures can be deployed through this Program, however they must also meet the requirements just stated for energy efficiency measures. This Municipal and Commercial Building Targeted Measure Retrofit Program will not deploy measures that are currently rebated through the IOU Express Efficiency itemized measure program.

Since a qualifying criterion of each targeted measure is demonstrated energy savings, the program applicant should have access to information on the data collection and computation methods required to calculate the energy savings from the targeted measure retrofits. An explanation of the appropriate energy savings accounting methodology must be provided by the program applicant in the response to the solicitation. For the ultimate reporting of energy savings from each funded program, the energy savings accounting methodology and related data collection plan must be submitted to the Energy Commission for review and approval at the beginning of programs that have received a funding award from the Energy Commission.

2. Public and Private Partnerships

One possible Municipal and Commercial Building Targeted Measure Retrofit Program approach would be for California's public sector to install these cost-effective targeted

measures in large volumes, taking advantage of group purchasing arrangements already established by public agency associations. Once local governments and special districts are experienced in the purchasing and deployment of these targeted measures for their own buildings, they could then offer marketing, financing and technical support to deploy these targeted measures in private commercial buildings in their jurisdictions.

Another example of a Municipal and Commercial Building Targeted Measure Retrofit Program approach is to recruit specific commercial market segment to deploy targeted measures in their commercial properties. These commercial enterprises can capitalize on the Municipal and Commercial Building Targeted Measure Retrofit Program marketing campaign to promote their participation in California's economic recovery.

One more example of a Municipal and Commercial Building Targeted Measure Retrofit Program design would be the focus on a specific building type, such as schools, which are currently underserved due to the current economic downturn. Working with industry and community stakeholders, and leveraging existing public goods energy efficiency programs, this type of program could accomplish affordable retrofits, create much needed jobs and increase public awareness of energy efficiency.

Municipal and Commercial Building Targeted Measure Program proposals should describe the specific public and private partnerships that have been established and how these entities will participate in the program.

3. Workforce Development and Job Creation

Trainers, energy auditors, and retrofit technicians will be needed to deploy the Municipal and Commercial Building Targeted Measure Retrofit Program across California. Building these skills within California's workforce will also be part of the Energy Commission's ARRA SEP funded Green Jobs Training Program. The Green Jobs Program is working with public, private and nonprofit partners to develop a comprehensive, sustainable green workforce development program in California. The Green Jobs Training Program intends to leverage existing workforce partnerships by coordinating with state agencies, the State's Community College system and local workforce investment boards. At the local level, the Green Jobs Training Program will work with the 49 local workforce investment areas, which provide regional "one-stop centers" for assessment, training and placement for job seekers and businesses, and have long-standing relationships with local government and civic leaders, economic development agencies, labor and community organizations, and businesses. The Municipal and Commercial Targeted Measure Retrofit Program proposals should include a plan to coordinate training delivery with the ARRA SEP funded Green Jobs Training Program to the extent possible.

The Municipal and Commercial Building Targeted Measure Retrofit Program should also coordinate with the State's investor owned utilities and municipal utilities, which

operate energy training centers that provide education and workforce training related to energy efficiency. Municipal and Commercial Building Targeted Measure Retrofit Program proposals should explain how the training needs of the Program will be met in coordination with these existing workforce development efforts across the state.

Job creation for dislocated and under-employed incumbent workers in construction and related technical trades is a program feature that should be addressed by the Municipal and Commercial Building Targeted Measure Retrofit Program applicants. Creating new jobs in areas of the state most in need of economic stimulus is also encouraged. The Energy Commission believes that partnering with community colleges, local government consortia, and local trade unions to deploy the Municipal and Commercial Building Targeted Measure Retrofit Program can provide jobs and save energy in communities throughout the state. Program applicants should explain how ARRA funded workforce education and training efforts can supply workers for the specific jobs created by the proposed program.

4. Volume Purchasing

Receiving volume discounts for the targeted measures is a key aspect of the Municipal and Commercial Building Targeted Measure Retrofit Program design. The following organizations have existing purchasing agreements that could be used to negotiate volume discounts for the targeted retrofit measures included in the Municipal and Commercial Building Targeted Measure Retrofit Program:

a) Department of General Services
b) University of California/California State University/California Community Colleges (UC/CSUS/CCC)
c) U.S. Communities Government Purchasing Alliance – California Cities & Counties
d) California Special Districts Association

5. Collaboration with Existing Efficiency Programs

The goal of the Municipal and Commercial Building Targeted Measure Retrofit Program is to extend, enhance, and/or complement the extensive public goods energy efficiency efforts in California. The IOU partnership programs with local governments, universities and community colleges provide an opportunity to leverage SEP dollars with public goods funds already dedicated to marketing energy efficiency and providing incentives for retrofit measures. The IOU third party programs and POU efficiency programs offer additional opportunities to leverage SEP funding. For MCBTMR Program proposals that include leverage from utility or other municipal district efficiency programs, the applicant must explain how the existing program strategies will be used to deploy targeted measure retrofits and how the proposed program design incorporates these existing strategies.

The Energy Commission wholeheartedly supports the publicly funded retro-commissioning programs in California and the emerging emphasis on comprehensive commercial building retrofits. The Energy Commission believes that substantial and sustained energy use reductions in existing buildings will be required to meet the state's greenhouse gas reduction goals. Although the Municipal and Commercial Building Targeted Measure Retrofit Program is not a comprehensive retrofit program, applicants are encouraged to develop program designs that deploy targeted measures and also increase customer awareness of and encourage action towards retro-commissioning and comprehensive retrofits.

6. Fund Leverage and Sustainability

   Leveraged funding is not explicitly required for the Municipal and Commercial Targeted Measure Retrofit Program but proposals will be evaluated on their overall program cost effectiveness, which will improve proportionally with additional public or private funding. Leveraged funding and/or resources can be provided from a variety of sources including but not limited to other ARRA SEP programs, IOU and POU energy efficiency programs, local government initiatives, public university and college energy bond programs, private financing and federal tax credits.

7. Marketing & Outreach

   Achieving broad deployment of targeted measures in specific market segments is the core design concept for the Statewide Municipal and Commercial Building Targeted Measure Retrofit Program. Success will require an excellent marketing strategy and key partnerships. Program applicants are encouraged to include community partners, industry associations, trade groups and local government consortia, as appropriate, in their strategies for education, marketing and outreach.

8. Project Reporting

   Program applicants should propose innovative and cost-effective methods of collecting project performance data, computing key project metrics, sending this information to the Energy Commission electronically and publishing project results on the internet. All Municipal and Commercial Building Targeted Measure Retrofit Program reporting methods must be flexible enough to meet future tracking and reporting requirements that will be established by the Energy Commission during the early implementation stages of the ARRA program. All requirements related to the ARRA sub recipient and vendor reporting and tracking must be adhered to as well as any other state and federal reporting requirements for energy related ARRA funds.

9. Technical Support

   The Energy Commission will provide technology adoption resources to support the Municipal and Commercial Building Targeted Measure Retrofit programs. The Energy Commission will work with California's technology centers and other organizations as necessary to provide best practice information, technical specifications, survey tools, and other technology deployment information. This technical support will also facilitate the creation of purchasing co-operatives and aggregation of orders to attain volume purchase agreements with manufacturers where possible. The technology centers that are likely to provide lighting and HVAC technical support are the California Lighting Technology Center and the Western Cooling Efficiency Center. These centers can provide specific audit forms, new technology training for consultants, and energy savings computations for the targeted measures in their fields of expertise. The case study evaluation methodologies developed by the PIER Technology Demonstration program will be available to Program participants along with the expertise to adapt the evaluation protocols to special circumstances.

C. Evaluation Criteria

The following criteria will be used for evaluating proposals in response to the solicitation:

1. Workforce Development

   The Energy Commission is seeking effective approaches to bring entry-level workers into the energy efficiency workforce and provide new job skills to professional tradespeople in the deployment of the targeted measure retrofits. Program proposals will be evaluated on their approach to training auditors, retrofit technicians and other trainers. Collaborations with the Green Jobs Training Program, other ARRA funded education and training activities in the state, and existing workforce development efforts should be documented in the proposals;

2. Total Job Creation and Retention

   Proposals will be evaluated on the extent to which all resources brought together by the applicant will create jobs. Job estimates should be based on the Council of Economic Advisers' Estimates of Job Creation from the American Recovery and Reinvestment Act of 2009, May 2009. The total investment in the program shall be divided by $92,000 to estimate the number of direct jobs created. The total investment should include SEP funding and all leveraged funds. Actual job creation information will be required to be reported as the programs progress;

3. Program Design

   Proposals will be evaluated on their overall approach to deploy cost effective best practice technologies in specific market segments of California. In addition to workforce development and job creation, the program designs should include secured public and/or private partnerships, collaboration with existing and/or emerging commercial building retrofit programs, a well-developed approach for volume discounts, a comprehensive marketing strategy, and a plan to leverage SEP dollars with other public and/or private funds. The program design should also include a well-developed strategy and schedule of program action milestones and deliverables to ensure that the efficiency retrofits will be completed before the March 2012 deadline;

4. Collaboration with Existing Efficiency Programs

   Municipal and Commercial Building Targeted Measure Retrofit Program customers should have access to all energy efficiency funds available for them to fund retrofit projects. The Energy Commission will evaluate the extent to which proposals identify specific public goods efficiency program resources that will be leveraged to deploy the retrofit technologies;

5. Sustainability

   The Energy Commission will evaluate proposals on the extent to which the applicant's program will create lasting changes in the market and continue to stimulate job creation and revitalization of the economy past the term of the ARRA SEP Program. The likelihood that the benefits of the proposed retrofits will persist over time will also be assessed. Due to the importance of substantial and sustainable energy savings in buildings to meet the state's greenhouse gas emission reduction goals, the Energy Commission will also place emphasis on proposals that include program elements encouraging participant awareness of and action towards retro-commissioning and comprehensive retrofits

6. Total Energy, Peak Demand and GHG Emissions Reductions

   Program proposals will be evaluated on the extent to which all resources brought together by the applicant will result in energy savings and peak demand and GHG emissions reductions;

7. Program Cost Effectiveness

   The principal element of cost effectiveness that will be evaluated is energy saved per dollar invested. U.S. DOE expects that ARRA programs achieve no less than 10 million source Btu's saved per $1,000 spent, where the dollars spent include only the ARRA SEP

funds. The savings to report for the U.S. DOE metric of cost-effectiveness are those resulting from the total dollars spent, including leveraged funds. The Energy Commission will also evaluate the overall program cost-effectiveness by comparing the planned energy savings from the program to the total costs of the program, including both SEP dollars and leveraged funds;

8. Time Criticality

   The Energy Commission will evaluate proposals on the documentation provided to demonstrate that the requested ARRA SEP funding will be expended in the completion of actual energy retrofits by March 31, 2012. Program proposals will also be judged on the documented plans to monitor implementation progress so that program resources can be adjusted as necessary to achieve the proposed retrofit savings by the March 2012 deadline;

9. Project Reporting

   Program proposals will be evaluated on their proposed approach to collect project performance data, compute key project metrics, transfer data to the Energy Commission and publish project results. All requirements related to ARRA sub recipient and vendor reporting and tracking must be adhered to as well as any other state and federal reporting requirements for energy related ARRA funds.

Additional evaluation criteria may be specified in the solicitation document.

D. Eligible Applicants

Public, nonprofit or private organizations acting as a Program Administrator are eligible to apply to the Municipal and Commercial Building Targeted Measure Retrofit Program. The Program Administrator is expected to partner with public and private entities to implement the Program.

CHAPTER V:
Low-Interest Energy Efficiency Financing Program

A. Program Summary

A minimum of $25 million in ARRA SEP funds will be used to augment funding for loans under the Energy Commission's existing Energy Efficiency Financing Program (EEFP). The EEFP is funded through the Energy Conservation Assistance Account (ECAA) and provides low-interest loans for energy efficiency and renewable energy retrofits to cities, counties, special districts, public schools and colleges, public hospitals, and public care institutions. EEFP loans are currently offered at interest rates of not less than 3 percent per annum and must be repaid from energy saving within 15 years, including principal and interest. This requires projects to have a simple payback period of 11 years or less. The EEFP is implemented pursuant to Public Resources Code section 25410, et seq., and the Energy Commission's regulations in Title 20 of the California Code of Regulations, sections 1650 – 1655.

The ARRA SEP funds are available for EEFP loans at interest rates of 1 percent per annum. This requires projects to have a simple payback period of 13 years or less. All projects eligible for EEFP loans may apply for the low interest ARRA SEP-funded EEFP loans, with the exception of projects for facilities owned or operated by the State of California. Projects for facilities owned or operated by the State of California may qualify for low interest ARRA-funded loans under a program to be implemented by the Department of General Services pursuant to Public Resources Code sections 25470 - 25474.

B. Eligibility

To qualify for an ARRA SEP-funded EEFP loan, the following requirements must be satisfied:

1. Projects must meet the eligibility requirements for an EEFP loan as specified in Public Resources Code section 25410, et seq., and the Energy Commission's regulations in Title 20 of the California Code of Regulations, sections 1650 – 1655.
2. Projects may not be for otherwise eligible facilities owned or operated by the State of California.
3. Projects may not be for gambling establishments, aquariums, zoos, golf courses or swimming pools.[17]
4. Projects must be technically and economically feasible.
5. Loans must be repaid from energy cost savings within 15 years, including principal and interest. This requires projects to have a simple payback period of 13 years or less.

[17] Projects that are not eligible for an ARRA SEP-funded EEFP loans may qualify for an ECAA-funded EEFP loan at an interest rate of 3 percent per annum.

6. The term of the loan may not exceed the useful life of the loan-funded equipment or the lease term of the building in which the loan-funded equipment will be installed.
7. The maximum loan amount may not exceed $3 million. (There is no minimum loan amount.)
8. ARRA loan funds may only be used to supplement, and may not be used to supplant, funds already committed or expected to be received in support of the loan funded project. Examples of these funds include, but are not limited to: utility rebates, local funds previously approved for the project, other funds received in support of the project, etc.
9. ARRA funded loans will be amortized on the estimated annual energy cost savings achieved by the loan-funded project.
10. Loan applicants must satisfy all ARRA requirements as specified in these Guidelines and the Energy Commission's solicitation document.

Examples of eligible projects include, but are not limited to, the following:

1. Lighting systems
2. Heating and air conditioning modifications
3. Pumps and motors
4. Streetlights and LED traffic signals
5. Building insulation
6. Waste water treatment equipment

C. Application Process

Applicants interested in receiving an ARRA SEP-funded EEFP loan must apply for funding as specified in the Energy Commission's solicitation document. Complete applications will be evaluated and recommended for funding as specified in the solicitation document