

# **FINAL STATEMENT OF REASONS**

**AMENDMENTS ADOPTED INTO APPLIANCE EFFICIENCY  
REGULATIONS**

**CALIFORNIA CODE OF REGULATIONS, TITLE 20:**

**CHAPTER 2, SUBCHAPTER 4, ARTICLE 4, SECTIONS 1601-1608:**

**APPLIANCE EFFICIENCY REGULATIONS**

**CALIFORNIA ENERGY COMMISSION**

**DOCKET NUMBER 11-AAER-2**

**OFFICE OF ADMINISTRATIVE LAW**

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**CALIFORNIA  
ENERGY COMMISSION**

**Edmund G. Brown, Jr., Governor**

**SEPTEMBER 2012**

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**BATTERY CHARGER SYSTEMS**

**SELF-CONTAINED LIGHTING CONTROLS**

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## INTRODUCTION

This document is the Final Statement of Reasons (FSOR) and Updated Informative Digest required by Government Code sections 11346.5(a)(19), 11346.9, and 11347.3(b)(2).

Public Resources Code section 25402(c)(1) mandates that the California Energy Commission reduce wasteful, uneconomic, inefficient, or unnecessary energy use by prescribing, by regulation, standards for minimum levels of operating efficiency for appliances. The Energy Commission first adopted appliance efficiency regulations in 1976 and has continued to revise those standards, and adopt new ones, since that time. The current regulations include provisions for:

- Testing of appliances to determine efficiency.
- Certification and reporting of data by manufacturers.
- Marking and labeling of products.
- Standards establishing mandatory efficiency levels.
- Compliance and enforcement procedures.
- General provisions on the scope of the regulations. Definitions.

The Energy Commission addressed two subjects in this rulemaking proceeding. Foremost, the Energy Commission adopted new regulations for battery charger systems, including efficiency standards for small and large battery charger systems in active charge mode, maintenance charge mode, and no battery mode. Efficiency standards for large battery charger systems include a minimum standard for power factor. The efficiency standards apply to small battery charger systems that are consumer products manufactured on or after February 1, 2013, small battery charger systems that are not consumer products manufactured on or after January 1, 2017, and all large battery charger systems manufactured on or after January 1, 2014.

The amendments also modify California's existing Energy Efficiency Battery Charger System Test Procedure (Cal. Code Regs., tit. 20, § 1604(w)(2)) for battery charger systems (which applies to battery charger systems that are not consumer products), require marking of battery charger systems, and require certification of compliant models to the Energy Commission.

Secondly, the regulations also establish requirements for various types of self-contained lighting controls that may be sold or offered for sale in California; the requirements apply to models manufactured on or after February 1, 2013.

## PROCEDURAL HISTORY OF THE RULEMAKING

On October 7, 2011, the Office of Administrative Law published a Notice of Proposed Action (NOPA) concerning the potential adoption of proposed amendments to the Appliance Efficiency Regulations<sup>1</sup>, commonly referred to as the Express Terms or 45-Day Language of the Regulations. The NOPA, Initial Statement of Reasons (ISOR), and the 45-Day Language Express Terms were posted on the Energy Commission website on October 7, 2011. The NOPA was also provided to interested persons, entities, and the Secretary of the Natural Resources Agency.<sup>2</sup>

In addition, the Energy Commission provided notice on October 7, 2011, of its Initial Study and Proposed Negative Declaration pursuant to the California Environmental Quality Act (CEQA), Public Resources Code, section 21000 et seq.<sup>3</sup>

The first public hearing listed in the NOPA, before the Energy Commission's Lead Commissioner for Energy Efficiency, was held on October 24, 2011, for the purpose of receiving public comments. A second public hearing, identified in the NOPA as an adoption hearing, was noticed to be held before the full Energy Commission on November 30, 2011. The public comment period for this NOPA ran from October 7, 2011, through November 21, 2011.

The Energy Commission received substantial comments, including many filed on the last day of the comment period on November 21, 2011. To fully consider the content of the submissions received, the Energy Commission postponed the adoption hearing on the proposed regulations and associated proposed Negative Declaration prepared pursuant to CEQA. On November 23, 2011, the Commission posted a notice to this effect on its website and sent the notice to all stakeholders to the proceeding via the Commission's list-server for the rulemaking.

In response to comments, on December 14, 2011, the Energy Commission released proposed amendments to the regulations, titled "15-Day Language," reflecting changes to the 45 day regulatory language. The 15-day comment period was initially noticed as December 14, 2011, through December 29, 2011, with an adoption hearing scheduled for January 11, 2012. On December 19, 2011, the Energy Commission provided notice extending the comment period to January 3, 2012. On December 27, 2011, the Energy Commission released a notice changing the date of the hearing from January 11, 2012, to

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<sup>1</sup>Cal. Code Regs., tit. 20, §§ 1601- 1608.

<sup>2</sup> Pursuant to Gov. Code §§ 11346.4, subd. (a), 11104.5, subd. (a), and Cal. Code Regs., tit. 1, § 86. See enclosed Statement of Mailing of Required Notices, submitted in this rulemaking file.

<sup>3</sup> See enclosed Statement of Mailing of Required Notices.

January 12, 2012. These notices were made available on the Energy Commission's website and sent to all the stakeholders to the proceeding via its list-server.<sup>4</sup>

On January 12, 2012, the Energy Commission held the hearing to consider adopting:

- the proposed Negative Declaration, including a Finding of No Significant Impact under CEQA, for the proposed regulations, and
- originally proposed express terms, as modified in the 15-day Language.

Public comments were taken at the hearing. After considering public testimony at the hearing and the comments submitted during the noticed comment periods, the Energy Commission unanimously adopted the proposed Negative Declaration and the originally proposed express terms, as modified in the 15-day Language.

## **INCORPORATION BY REFERENCE OF MATERIAL FROM THE NOTICE OF PROPOSED ACTION**

The 15-Day Language does not substantially deviate from the originally proposed text; therefore, in accordance with Government Code section 11346.9(d), the Energy Commission determines that this Final Statement of Reasons can satisfy the following requirements by incorporating by reference various parts of the October 7, 2011, Notice of Proposed Action.

- Section 11346.9(a)(5). The Small Business Impacts and Economic Impact on Business determinations from the Notice of Proposed Action are incorporated by reference. The Energy Commission has determined that the regulations have no adverse economic impact upon small businesses. Thus, alternatives to lessen any impact were not considered, and none were identified, as described further below.
- Section 11346.9(c). The relationship to federal law discussion from the Notice of Proposed Action is incorporated by reference.

## **UPDATE TO THE INITIAL STATEMENT OF REASONS**

Government Code section 11346.9(a)(1) requires the FSOR to contain an update of the information contained in the initial statement of reasons. Other than those changes noted below, no other changes to the Initial Statement of Reasons are necessary, and those items not addressed are hereby incorporated by reference.

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<sup>4</sup> See enclosed Statement of Mailing of Required Notices. The Energy Commission received no requests to be mailed a paper copy of any notice or other document in this proceeding.

In Section 1602(l):

The definition of an “Astronomical time-switch control” was amended to clarify the differences between an “Automatic time-switch control,” by requiring that the device be capable of responding to astronomical events as well as time of day events.

The definition of a “Dimmer” was amended to better describe the basic functionality of a dimmer rather than define a specific form of dimmer that varies current.

The definition of a “Lighting photo control” was amended to more broadly define the wide range of uses of photo controls as lighting controls.

The definition of an “Occupant sensing device” was amended to clarify occupancy versus vacancy.

The definition of “Partially off” was amended to clarify partially off for motion sensor or occupancy sensor.

The definition of “Partially on” was amended to clarify partially on for motion sensor or occupancy sensor.

In Section 1602(w):

The definition of a “USB charger system” was added for the specific purpose of defining this class of product. This definition is necessary to make the effective date for specific products clear in section 1605.3(w)(2)(A) and 1605.3(w)(2)(B).

In Section 1604(w):

The California test method for small battery charger systems, described in 1604(w)(1), was amended by adding a provision for batteries not defined in the federal test procedure’s Table 5.2. These instructions are necessary to ensure that all of the products incorporated in the scope of the regulations can be appropriately and safely tested. This is necessary for certification which is a requirement for products sold in California per the adopted regulations. This amendment was made to address comments made from Motorola Solutions in its letter dated October 19, 2011.

The test method for large battery charger systems, described in 1604(w)(2)(B), was amended to enhance clarity by altering language to match the amendment discussed above for small battery charger systems.

In Section 1605.3(l):

Section 1605.3(l)(2) was amended to change the effective date to February 1, 2013. This change was made to provide manufacturers at least one year after the adoption of the regulations to make any design changes needed to comply with the standards. This is necessary per Public Resources Code section 25402, subd. (c)(1).

The proposed prescriptive requirements for “Automatic Daylight Controls” per 1605.3(l)(2)(D) were amended to enhance clarity and to correct errors in references made in the section. These amendments were necessary to correctly implement the intended standards described in the NOPA and ISOR.

The proposed prescriptive requirements for “Photo Controls” per Section 1605.3(l)(2)(E) were amended to reflect changes made to the definition of photo-controls as described in section 1602(l).

Section 1605.3(l)(2)(G)(1) was amended to enhance clarity. Section 1605.3(l)(1)(G)(1)(f) was rewritten and 1605.3(l)(G)(1)(g) was removed from the proposed regulations to accommodate functional differences between dimmable and non-dimmable occupant sensing devices.

Section 1605.3(l)(2)(G)(4) and 1605.3(l)(2)(G)(5) were amended to address technologically feasible options for converting vacancy sensors between manual and automatic functionality as requested in the National Electrical Manufacturer’s Association letter.<sup>5</sup>

In Section 1605.3(w):

The effective dates described in Section 1605.3(w)(2) were amended to enhance clarity and to provide manufacturers of USB charger systems with 20 watt-hours or greater capacity batteries additional time to comply. This change was made to address concerns made by TechAmerica’s comment letter, Attachment A, dated November 21, 2011 regarding the feasibility of the standard for larger battery capacities. While Energy Commission engineering staff has determined that it is feasible for these products to comply with the proposed standards, the technological challenges unique to USB chargers of this battery capacity as presented in the public comment justified providing additional time to comply.

Section 1605.3(w)(2) was also amended to change the January 1, 2013 date to February 1, 2013 to provide manufacturers at least one year after the adoption of the regulations to

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<sup>5</sup> “NEMA Changes to CCR Title 20 45 Day Language Regarding Lighting Controls Docket No. 11-AAER-2,” November 17, 2011, page 2

make any design changes needed to comply with the standards. This is necessary per Public Resources Code section 25402, subd. (c)(1).  
Section 1605.3(w)(3) was amended to enhance clarity as requested in comments received from Philips Electronics, page 10, dated November 21, 2011.

Section 1605.3(w)(3) was also amended to extend the effective date from January 1, 2013 to February 1, 2013. This change was made to provide manufacturers at least one year after the adoption of the regulations to comply. This is necessary per Public Resources Code section 25402, subd. (c)(1).

Section 1605.3(w)(4) was amended to extend the effective date from January 1, 2013 to February 1, 2013. This change was made to provide manufacturers at least one year after the adoption of the regulations to comply. This is necessary per Public Resources Code section 25402, subd. (c)(1).

In Section 1606:

Table X, subsection L was amended to clarify the information required for certification to the Commission of self-contained lighting controls.

Table X, subsection L was also amended to differentiate requirements for residential automatic time-switch controls and commercial automatic time-switch controls.

Section 1606, Table X, subsection W was amended to require additional information when certifying battery charger systems. The product type was added to determine what type of battery charger system is being certified to the Energy Commission. Data submittal requirements regarding battery capacity, á la carte charger, USB charger system, and location of marking or labeling were added as this information is necessary to determining compliance.

In Section 1607:

Section 1607(d)(12) was amended to allow manufacturers to comply with labeling and marking requirements by either marking a battery charger system or labeling the battery charger system's packaging and instructions per request made by TechAmerica<sup>6</sup> and similar comments made by other stakeholders.

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<sup>6</sup> "TechAmerica Comments to the California Energy Commission Regarding Proposed Appliance Efficiency Regulations (Battery Charger Systems) [Docket Number 11-AAER-2]," November 21, 2011, page 3.

## UPDATED INFORMATIVE DIGEST

Pursuant to section 11346.9(b), and except for the changes noted below, the Informative Digest contained in the Notice of Proposed Action is incorporated by reference.

Upon review of the public comments received on the 45-Day Language, the Energy Commission developed changes to the 45-day Language and made the proposed regulations, as revised, publicly available for comment as “15-Day Language,” pursuant to Gov. Code section 11346.8. As specified below, these changes were made in response to comments to provide additional clarity to the regulations and to modify some of the deadlines to provide manufacturers with sufficient time to implement the new requirements. Additionally, changes were made to the data submittal requirements to aid in the determination of compliance with these regulations. Specifically, the changes made to the 45-Day Language:

- Improved the clarity of the definitions for self-contained lighting controls and battery charger systems.
- Added a definition for USB charger systems necessary to define a product class introduced in section 1605.3(w).
- Changed the test method requirements to allow small battery charger systems that are not consumer products to use the battery manufacturer’s recommended end of discharge voltage in place of values in the federal test method, Table 5.2, where the table’s values are inappropriate because of safety concerns during testing.
- Amended for consistency for large battery charger systems a provision similar to the above.
- Changed the effective date for small battery charger systems and self-contained lighting controls from January 1, 2013, to February 1, 2013. This change was made to provide manufacturers at least one year to prepare for certification after the adoption of the regulations, including making any design changes needed to comply with the standards. This change is also necessary per Public Resources Code section 25402, subdivision (c)(1), which requires that new efficiency regulations be effective no sooner than one year after the date of adoption.
- Removed from the initially proposed 45-Day Language prohibitions against occupant-sensing devices from being capable of conversion by the user between manual and automatic on-and-off functionality.
- As a consequence of the above change, two additional changes were made to the proposed 45-Day Language:

- One, initially proposed additional requirements for occupant-sensing devices incorporating dimming were replaced with cross-references to generally applicable requirements for such devices.
  - Two, additional restrictions against the ability to convert such devices after installation from manual to automatic functionality were added to the 15-Day Language.
- Changed the effective date to January 1, 2014, for consumer products that are USB charger systems with a battery capacity of 20 watt-hours or more. This change was made to address concerns made by TechAmerica in its comment letter, dated November 21, 2011,<sup>7</sup> regarding the feasibility of the standard for larger battery capacities, and statements by affected manufacturers that demonstrated that the technological challenges unique to USB chargers of this size of battery capacity justified providing additional time to comply.
  - Added additional reporting requirements for lighting controls and battery charger system certification. The additional reporting requirements are necessary in order for staff to verify compliance.
  - Amended the marking requirements in the regulations to include an option for manufacturers to either mark products, or label products' retail packaging and the cover page of any accompanying instructions. This change was made to allow manufacturers flexibility in complying with marking requirements, as appropriate for any particular product.

## **DETERMINATION WHETHER REGULATIONS IMPOSE A MANDATE UPON LOCAL AGENCIES OR SCHOOL DISTRICTS**

In the January 12, 2012, Adoption Order, No. 12-0112-12, the Energy Commission determined that the regulations impose no direct costs or direct or indirect requirements on state agencies, local agencies, or school districts, including, but not limited, to costs that are required to be reimbursed under Part 7 (commencing with Section 17500) of the Government Code.

Therefore, the proposed regulations do not impose any mandate on local agencies or school districts. This is consistent with the preliminary finding in the NOPA (page 15). The amendments to the 45-day Language did not make changes that would directly and specifically mandate action from local agencies or school districts. There were no comments on this matter throughout the rulemaking proceeding and this determination has not changed.

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<sup>7</sup> See TechAmerica comment no. 7, November 21, 2011.

## CONSIDERATION OF ALTERNATIVE PROPOSALS

Pursuant to Government Code section 11346.9, subdivisions (a)(4) – (5), the Energy Commission has determined that no alternative before it would be more effective in carrying out the purpose for which this action is proposed, would be as effective and less burdensome to affected persons than the adoption of the proposed regulations, or would be more cost effective to affected private persons and equally effective in implementing the statutory policy or other provision of law. Similarly, because the Energy Commission has determined that the regulations have no adverse economic impact upon small businesses, none of the alternatives proposed would lessen such impacts on small businesses.

As discussed in the Energy Commission's responses to comments, all of the alternative proposals received, considered, and rejected by the Commission during this rulemaking proceeding would reduce the projected energy savings from the regulation and would therefore be less effective, despite any potential reduction in adverse economic impacts to businesses both small and large.

Further, it is noteworthy that the comments were directed at impacts on manufacturers and consumers. The comments did not raise or quantify impacts on small businesses. Given that the regulations apply directly to manufacturers who must make battery charger systems and self-contained lighting controls to comply with the standards, the costs will be primarily incurred by manufacturers. Thus, the record does not show significant adverse impacts on small businesses, or that the suggested alternatives would reduce those impacts.<sup>8</sup>

The alternatives that were proposed include:

1. **Providing higher power allowances and additional time to make it easier for manufacturers to meet the standard.** Based on the information in the staff report the Energy Commission concluded that it is technologically feasible and cost effective to meet the energy allowance provided in the regulations as adopted. Making these suggested changes to the regulations would continue to allow battery charger systems to unduly waste energy. Therefore, these alternatives were rejected on the basis that they were not as effective and less burdensome to affected private persons and small businesses as the adopted regulations in carrying out the purposes of the Warren-Alquist Act, namely to reduce wasteful, uneconomic, inefficient, or unnecessary energy use by prescribing standards for minimum levels of operating efficiency for appliances.

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<sup>8</sup> See Economic and Fiscal Impact Statement, STD Form 399 and supporting analysis, submitted herewith.

2. **Excluding certain products from the regulation, providing different standards for certain products, or delaying compliance dates for certain products, including inductive chargers, uninterruptable power supplies, emergency lighting, and telecommunications equipment.** The Energy Commission concluded that it is cost-effective and technologically feasible for these products to comply with the regulation according to the compliance schedule provided. The requested alternatives would result in a significant loss of energy savings as compared to the proposed regulations. Therefore, these alternatives were rejected on the basis that they were not as effective as the adopted regulations and less burdensome to affected private persons and small businesses in carrying out the purposes of the Warren-Alquist Act, namely to reduce wasteful, uneconomic, inefficient, or unnecessary energy use by prescribing standards for minimum levels of operating efficiency for appliances.
3. **Discontinuing the California battery charger proceeding on the basis that the state standards will be preempted by federal battery charger standards.** The Energy Commission rejected this alternative because the federal rules are only a subset of the California standards since the federal rules do not include non-consumer, small and larger battery chargers. Moreover, there is considerable uncertainty over when and if the federal rules will be adopted. (As of August 15, 2012, the federal rules have not been adopted despite a statutory requirement that they be adopted by July 1, 2012.) Finally, the state would still realize significant energy savings even with preemption because the federal standards would likely not become effective until two years after the standards are adopted. Therefore, this alternative was rejected on the basis that it is not as effective and less burdensome to affected private persons and small businesses as the adopted regulations in carrying out the purposes of the Warren-Alquist Act, namely to reduce wasteful, uneconomic, inefficient, or unnecessary energy use by prescribing standards for minimum levels of operating efficiency for appliances. See also responses to comments in letters 2 and 5, at the hearings [e.g., 4.16, 4.22, 4.19; 52.24-25], 23.5, 26.1 – 3, and 27.1, inter alia.
4. **Discontinuing the proceeding on the basis that voluntary programs should be implemented instead of mandatory standards.** The Energy Commission found that California will achieve significant savings (approximately 200 GWh) through the adopted regulations in just the first few months of compliance. Failing to adopt state regulations now will result in significant lost energy and monetary savings for Californians. See also responses to comment letters 2, 15 and 26, inter alia. Therefore, this alternative is not as effective and less burdensome to affected persons and small businesses as the adopted regulations in carrying out the purposes of the Warren-Alquist Act, namely to reduce wasteful, uneconomic, inefficient, or unnecessary energy use by prescribing standards for minimum levels of operating efficiency for appliances.

5. **Changing the provisions of the test procedure.** As described more fully in the responses to comments, the test procedure has been adopted as a federal requirement for certain products, and the Energy Commission may not deviate from it. In other instances, the Energy Commission accommodated requested changes. For example, Section 1604(w)(1)(D) was changed in the 15-Day Language to allow using manufacturer-recommended end of discharge voltages in place of voltage levels stated in the test method. See, inter alia, responses to comment letters 4, 10, and 13. No other alternative was proposed that would be as effective and less burdensome to affected persons and small businesses as the adopted regulations in carrying out the purposes of the Warren-Alquist Act, namely to reduce wasteful, uneconomic, inefficient, or unnecessary energy use by prescribing standards for minimum levels of operating efficiency for appliances.

**Changing or deleting the labeling and marking requirements.** The labeling requirements are a necessary component of the regulations to ensure that the standards are met and the energy savings are realized. The regulations provide reasonable options for marking and labeling while ensuring that the necessary information is accessible. Proposals to change the required locations of the labels or marks, such as only on the packaging, or to not require marking or labels, would not be as effective and less burdensome to affected persons and small businesses as the adopted regulations in carrying out the purposes of the Warren-Alquist Act, namely to reduce wasteful, uneconomic, inefficient, or unnecessary energy use by prescribing standards for minimum levels of operating efficiency for appliances. See, inter alia, responses to comment letters 2-6, 8-9, 12, 24, 45-46, 50, and comments in the hearing transcripts at 4.4, 4.13, 4.31, 41.3, and 52.33.

## **SUMMARY OF COMMENTS RECEIVED AND THE ENERGY COMMISSION'S RESPONSES**

Pursuant to Government Code, section 11346.9, subd. (a)(3), the attached response to comments document summarizes and responds to all of the comments on both the 45-Day Language and the 15-Day Language received during the rulemaking that are directed at the regulations or the process by which they were adopted.

The Energy Commission received numerous comments in this rulemaking. The Commission grouped and summarized overlapping and similar comments to provide a uniform and concise response. Some duplication of responses persists, but to minimize duplication, the responses should be read as a whole.

In general, the comments are organized by the subject of the comment, with reference to specific comments.

Based on the information contained in the record, and the analysis contained in the staff report proposing the standards, and after consideration of stakeholder comments, the Energy Commission concluded that the regulations are technologically feasible and cost-effective and will result in energy cost savings for consumers and will not increase costs to consumers. Further, these regulations fulfill the Energy Commission's statutory mandate to prescribe, by regulation, standards for minimum levels of operating efficiency, based on a reasonable use pattern, and are within the Commission's authority to prescribe other cost-effective measures, including energy consumption labeling not preempted by federal labeling law to promote the use of energy-efficient appliances whose use, as determined by the Energy Commission, requires a significant amount of energy on a statewide basis.