

**CALIFORNIA ENERGY COMMISSION**

1516 Ninth Street Sacramento, California 95814

Main website: [www.energy.ca.gov](http://www.energy.ca.gov)**NOTICE OF PROPOSED ACTION****PROPOSED AMENDMENTS TO  
APPLIANCE EFFICIENCY REGULATIONS  
California Code of Regulations, Title 20,  
Sections 1601 through 1607****CALIFORNIA ENERGY COMMISSION  
Docket Number 09-AAER-1C****September 18, 2009****INTRODUCTION**

The California Energy Commission (Energy Commission) proposes to amend its Appliance Efficiency Regulations. The purpose of this rulemaking is to adopt efficiency standards for active mode, standby mode, power factor, luminance control, and labeling, in televisions with a screen area fewer than 1,400 square inches in area and to adopt the IEC 62087 Ed 2 and IEC 62301 Ed 1 test procedures for testing televisions in active mode and standby mode that are published by International Electrotechnical Commission (IEC) and have been adopted by the ENERGY STAR<sup>®</sup> program.

The Energy Commission has prepared this Notice of Proposed Action (NOPA) and an Initial Statement of Reasons (ISOR) as part of the supporting documents to adopt the proposed amendments. The Energy Commission has also published the Express Terms (45-Day Language) of the proposed amendment language. These documents can be obtained from the contact persons designated below or from the Energy Commission website at [[www.energy.ca.gov/appliances](http://www.energy.ca.gov/appliances)].

## **PUBLIC HEARINGS**

### **FIRST HEARING**

The Energy Commission's Energy Efficiency Committee (Committee) will hold a public hearing to receive public comment on the Express Terms:

**TUESDAY, OCTOBER 13, 2009**  
9 a.m.  
CALIFORNIA ENERGY COMMISSION  
1516 Ninth Street  
First Floor, Hearing Room A  
Sacramento, California  
(Wheelchair Accessible)

Audio for the **October 13, 2009**, Committee hearing will be broadcast over the Internet. Details regarding the Energy Commission's webcast can be found at: [[www.energy.ca.gov/webcast](http://www.energy.ca.gov/webcast)].

At this hearing any person may present statements or arguments relevant to the proposed action. Interested persons may also submit written comments (see below). If possible, please provide written comments to be considered at the Committee hearing by **October 12, 2009**. The Energy Commission appreciates receiving written comments at the earliest possible date.

### **SECOND HEARING/PROPOSED ADOPTION DATE**

The Energy Commission will hold a second public hearing for consideration of public comments and possible adoption of the 45-Day Language unless the Energy Commission decides to modify the Express Terms through issuance of 15-Day language. This hearing will be held:

**WEDNESDAY, NOVEMBER 4, 2009**  
10 a.m.  
California Energy Commission  
1516 Ninth Street  
First Floor, Hearing Room A  
Sacramento, California  
(Wheelchair accessible)

Audio for the November 4, 2009, adoption hearing will be broadcast over the internet.

If you have a disability and require assistance to participate in these hearings, please contact Lou Quiroz at (916) 654-5146 at least 5 days in advance.

At this hearing any person may present statements or arguments relevant to the proposed action. Interested persons may also submit written comments (see below). If possible, please provide written comments to be considered at the Committee hearing by **November 2, 2009**, the Energy Commission appreciates receiving written comments at the earliest possible date.

## **PUBLIC COMMENT PERIOD/WRITTEN COMMENTS**

The public comment period for this NOPA will be from **September 18, 2009** through **November 2, 2009**. Any interested person may submit written comments on the proposed amendments. Written comments will still be accepted at the public Committee hearing and for the Energy Commission adoption hearing if they are received by 10 a.m. on **November 4, 2009**. Written comments shall be e-mailed to [[Docket@energy.state.ca.us](mailto:Docket@energy.state.ca.us)], or mailed or delivered to the following address (e-mailing is preferred):

California Energy Commission  
Docket No. 09-AAER-1C  
Docket Unit  
1516 Ninth Street, Mail Station 4  
Sacramento, California 95814-5504

All written comments must indicate **Docket No. 09-AAER-1C**. When comments are e-mailed on behalf of an organization, the comments should be a scanned copy of the original on the organization's letterhead and include a signature of an authorized representative.

## **AUTHORITY AND REFERENCE**

The Energy Commission proposes to adopt the amendments under the authority of Public Resources Code sections 25213, 25218(e), 25402(c)(1) and 25402.5.4. The proposed amendments implement, interpret, and make specific Public Resources Code section 25402(c)(1).

## **INFORMATIVE DIGEST/POLICY STATEMENT OVERVIEW**

Existing law – Public Resources Code § 25402(c) – requires the Energy Commission to adopt regulations that prescribe minimum efficiency levels for appliances. The Energy Commission first adopted appliance efficiency regulations in 1976 and has periodically revised them since then. The current regulations include provisions on testing of appliances to determine their efficiency, reporting of data by manufacturers to the Energy Commission, standards establishing mandatory efficiency levels, and compliance and enforcement procedures, as well as general provisions on the scope of the regulations and definitions.

In this initial phase of the rulemaking proceeding, which is the subject of this NOPA, the Energy Commission is proposing to amend the Appliance Efficiency Regulations to adopt improved efficiency standards for televisions with screen areas not greater than 1,400 square inches<sup>1</sup> for the standby passive mode, add new efficiency standards for power usage in the active mode, and adopt as new testing procedures IEC 62301, Ed 1.0: *Household Electrical Appliances - Measurement of Standby Power* and IEC 62087, Ed. 2.0: *Methods of Measurement for the Power Consumption of Audio, Video and related Equipment*, both of which are published by the International Electrotechnical Commission. These testing procedures, which were adopted by the U.S. EPA under its ENERGY STAR<sup>®</sup> Program in November 2008, were wholly supported by the television industry, environmental groups, and the California Energy Commission as the appropriate test procedures for digital televisions.

The IEC 62087 test procedure measures power consumption of the television by inputting a specific video scene to the television display. This method of measuring power consumption was chosen by industry because it is only applicable to the energy consumption of the display and does not measure consumption use of additional functions that may or may not be included in a specific television. Some of the additional functions that are not measured for energy consumption by the IEC 62087 test procedure and are not included as part of the proposed energy efficiency standards include but are not limited to: an internet TV unit, a 3-dimensional conversion unit, an iPod unit, a VCR unit, a DVD/Blu Ray unit, a HDD unit, a FM-radio unit, a memory card-reader unit, and an ambient lighting unit. These additional functions are excluded by the test procedure because they are not required for the basic operation of the television display.

Existing California Appliance Efficiency Regulations include efficiency standards for standby mode for televisions that were effective on January 1, 2006 as shown below. The existing television standard does not include an efficiency standard for active mode power usage.

The Energy Commission is proposing to amend the Appliance Efficiency Regulations to revise the existing 3 watts standby-passive mode power usage standard to a 1 watt standard, add an efficiency standard for maximum active mode power usage, and add a requirement that all televisions that use equal to or greater than 100 watts of power meet a 0.9 power factor standard. The proposed new standards are shown in the table below. These efficiency standards are not effective for televisions built before the effective date(s) shown in the table below. Thus, all televisions built before the effective date but still located at a manufacturer's or distributor's warehouse or sitting on a retailer's shelf or back storage room after the effective date of the standard can still be sold.

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<sup>1</sup> In a subsequent Phase 2 of this rulemaking, the Energy Commission may adopt efficiency standards for televisions in excess of 1,400 square inches.

### Existing Standards for Televisions

<u>Effective Date</u>	<u>Screen Size (area A in square inches)</u>	<u>Maximum TV Standby-passive Mode Power Usage (watts)</u>	<u>Maximum On Mode Power Usage (P in Watts)</u>	<u>Minimum Power Factor for (P ≥ 100W)</u>
January 1, 2006	All	3 W	No standard	No standard
<b>Proposed Standards for Television</b>				
<b><u>TIER 1 STANDARD</u></b>				
<u>January 1, 2011</u>	<u>A &lt;1400</u>	<u>1 W</u>	<u><math>P \leq 0.20 * \text{Screen Area (in}^2) + 32</math></u>	<u>0.9</u>
<b><u>TIER 2 STANDARD</u></b>				
<u>January 1, 2013</u>	<u>A &lt; 1400</u>	<u>1 W</u>	<u><math>P \leq 0.12 * \text{Screen Area (in}^2) + 25</math></u>	<u>0.9</u>

The first tier, effective on January 1, 2011, will require that television sets of 1,400 square inches or fewer use fewer than  $0.20 * \text{Screen Area (in}^2) + 32$  watts of energy while in the On or Active mode. The result of this efficiency standard has been estimated to save the consumer \$18.48 per year for the design life of the television. The overall energy savings for California is estimated to be \$4,766 million over the ten years following the effective date of the standard.

The second tier, effective on January 1, 2013, will require that television sets of 1,400 square inches or fewer use fewer than  $0.12 * \text{Screen Area (in}^2) + 25$ . The result of this efficiency standard has been estimated to save the consumer an additional \$11.76 per year for the design life of the television. The overall additional energy savings for California is estimated to be \$3,339 million over the ten years following the effective date of the standard.

For televisions in excess of 1,400 square inches, the Energy Commission may undertake a Phase 2 of this rulemaking in order to set efficiency standards for such televisions.

The Energy Commission is also proposing to require that televisions have a minimum specified ratio between the luminance in retail and home brightness level settings. In addition, the Energy Commission is proposing that televisions must automatically enter a standby mode after a maximum of 15-minutes without signal input and when turned off.

As stated above, the Tier 1 efficiency standard is estimated to save the consumer \$18.48, per year (on average), and Tier 2 would save an additional \$11.76 per year. The combined saving from Tier 1 and Tier 2 would be \$30.24 per unit per year. The overall energy cost savings to consumers for California is expected to be \$8.1 billion after all existing stock is replaced.

The energy savings generated from this regulation is estimated to be 6515 Gigawatt-hours (GWh) annually. The PG&E CASE Study published on July 3, 2008 estimates the peak demand reduction to be 615 MW. Without adopting the proposed regulation this translates to building a new natural gas power plant to handle the additional demand. The estimated cost of construction of a natural gas power plant of 615 MW capacity is approximately \$615 million according to the Energy Information Administration which identifies the “total overnight cost” (building cost) to be approximately \$1/w.<sup>2</sup> The estimated total value of this regulation in direct energy cost savings from the proposed standards and indirect savings in avoided construction cost of a new natural gas power plant is approximately \$8.7 billion.

Currently, California’s *Appliance Efficiency Regulations* require that a manufacturer test their televisions to comply with California standards using the outdated IEC 62087: 2002 (E) *Methods for Measurements for the Power Consumption of Audio Video, and Related Equipment*. This test method measures standby-passive mode energy use. The Energy Commission is proposing to adopt in its place the IEC 62301, Ed 1.0: *Household Electrical Appliances-Measurement of Standby Power*. In addition the Energy Commission is proposing to adopt International Electrotechnical Commission (IEC) 62087 Edition 2.0 “*Methods of Measurement for the Power Consumption of Audio, Video and Related Equipment*” to measure the active mode power use of televisions.

While the United States Department of Energy (U.S. DOE) has an old test procedure for analog television sets, found in 10 CFR Pt. 430, Subpt. B, App. H, it is insufficient for measurement of the power consumption of digital TVs. Digital televisions compose nearly the entirety of California’s market and are the focus of the proposed regulations. Furthermore, analog-format television broadcasts are no longer permitted by federal regulation; television broadcasting has changed to using purely digital signals, indicating that all new televisions sold within the United States are expected to be digital televisions.

The Energy Commission’s proposed test method for digital televisions is based on the test method adopted by the U.S. Environmental Protection Agency and U.S. DOE ENERGY STAR<sup>®</sup> program in November 2008. This testing procedure was wholly supported by the television industry, environmental groups, and the California Energy Commission as the appropriate test procedures for digital televisions. Additional components of the new test method proposed by the Energy Commission are based upon version 3.0 of the ENERGY STAR<sup>®</sup> program requirements for televisions and luminance testing developed during the latest revisions to version 4.0. These additions

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<sup>2</sup> <http://www.eia.doe.gov/oiaf/aeo/assumption/pdf/electricity.pdf>

add guidance to the testing procedure, give credit for the use of forced menus and automatic brightness controls, and ensure that test results are reproducible and fair.

The Energy Commission is also proposing labeling for energy consumption disclosure. The labeling requirements would provide consumers with easy access to energy information.

The Energy Commission has developed a technical record of information used to support the adoption of a proposed efficiency standards for televisions as required by the state law located in Public Resources Code section 25402(c)(1). This information has been collected through workshops held on July 16, 2008 and December 15, 2008, through various subsequent meetings held at the request of the Energy Commission and by the various stakeholders such as: the television manufacturers, the makers of the television displays provided to the manufacturers, the makers of the light ray dispersing plastic film used to reduce the need of backlighting by displays by 40 percent, the Consumer Electronics Association (CEA), retailers, utilities, and national environmental groups, and through specific written request to the various stakeholders. As a result of the technical information that has been provided by the stakeholders, the Energy Commission created a record that it has technically analyzed. The Energy Commission then prepared a Staff Report ("Draft Efficiency Standards for Televisions," December 2008, Publication No. CEC-400-2008-SD) as the supporting technical document to meet the requirements of the state law located in Public Resources Code section 25402(c)(1). Energy Commission staff have determined that the conclusions of this staff report are based on information provided by the stakeholders that is supported by studies, facts, reasonable assumptions predicated upon facts, and expert opinion supported by the facts.

The Energy Commission, as required by the Public Resources Code, has made a finding that television use requires a significant amount of energy on a statewide basis. This finding is supported by the record in which the Energy Commission found that television viewing represents about ten percent of residential electricity use or approximately two percent of California's gross system electricity usage. The record showed that television energy use for all televisions in California is estimated to be about 8,770 GWh/year (a GWh is one million kilowatt-hours of electric power). The Energy Commission estimated from information in the record that the statewide benefit from the proposed efficiency standards for televisions will result in an energy savings of 6,515 GWh/yr which will result in a direct energy cost savings to consumers of 8.1 billion dollars. This energy savings also represents a reduction in growth of a huge energy demand due to the use of very inefficient televisions that, if unchecked, would result in the need for California to build a new \$3 billion power plant within the next 10 years.

The Public Resources Code also requires that the Energy Commission design the energy efficiency standards for televisions to be technically feasible and attainable. The Energy Commission has determined from the record that there are many new technologies found in televisions currently being built and sold in the market that effectively reduce their energy consumption, that the use of these technologies has not

imposed and does not impose a large cost on either the manufacturer or consumer, and that they would greatly decrease the energy consumption of the most inefficient televisions still being sold in the market were they incorporated into these units. For example, findings in the Staff Report were that:

1. Television models are being manufactured with photo sensors which automatically adjust the brightness and contrast of a screen based the ambient light conditions, and with menu settings for brightness that are appropriate for home use while saving energy.
  - Example: LG Electronics recently unveiled an Intelligent Sensor technology that reduces for Liquid Crystal Display (LCD) TV energy consumption by 50-80 percent savings when using their automatic brightness control.
2. New phosphors with enhanced gas mixtures are being used that improve the efficiency of Plasma televisions, and enhance the picture quality.
  - Example: CNET and ENERGY STAR television test data shows that large screen Plasma televisions are able to meet Tier 1 and Tier 2 standards.
3. Display panel manufacturers use display enhancement technologies for LCD screens that increase the efficiency of the backlight's transformation into a picture. Light diffusing and light polarizing film technologies are available today that can enhance the energy efficiency in all sizes of televisions. 3M's Vikuiti optical film is integrated into the backlight of many flat panels of LCD televisions. 3M film alone can reduce their power consumption by 37 percent. Many other diffusing and polarizing film technology are being used by many manufacturers in their television models and have resulted in a significant reduction in energy consumption. California based companies Agoura Technologies and Imagine Designs have also developed light polarization and diffusing films that can significantly improve backlight transmission thus can significantly reduce the energy consumption in picture displays.
4. LCD Light Emitting Diode (LED) television backlight technology, rare only a few years ago, is now premium mainstream technology. LED technology delivers significant energy savings over conventional Cold Cathode Fluorescent Lamp backlit models, offering the lowest power consumption of any LCD TV available today.
  - Example: In July 2009, Sharp television manufacturer unveiled a new line of LED-backlit LCD TVs. New television energy consumption data released by sharp on the new line of LED LCD television of 32", 40", 46", and 52" size models show that the new televisions exceed the Tier 2 energy consumption between 20 percent to 40 percent.
  - Example: Samsung's LED LCD TV technology is approximately 40 percent more efficient than their already-efficient, ENERGY STAR®-qualified LCD TVs.



5. Sony television's new technology Hot Cathode Fluorescent Lamp (HCFL) micro tubular Backlight Panel uses 40 percent less energy than a standard (cold cathode) fluorescent backlight panel. A 52" HCFL television uses only 127 watts in active mode while maintaining the same level of brightness as conventional CCFL LCD TVs.

Sony has also incorporated an intelligent Presence Sensor function in its televisions to sense if a viewer is present or not in the room, and is able to temporarily turn off the TV picture, instantly reducing power consumption by 50 percent.

6. In December 2009 workshop, JVC television representative Dave Kline declared that JVC has 13 television models that are proposed Tier 2 compliant. Currently JVC has 19 TVs on the August 11, 2009 ENERGY STAR® list that meet Tier 2. Compliant television size ranges from 19" to 52".
7. VIZIO is one of the three leading brands of LCD and Plasma Flat Panel HDTV, with 10 percent of the television sales in the U.S. for 2008. VIZIO has confirmed to the Energy Commission that they are in a position to comply with the proposed standards earlier than the proposed effective dates.

VIZIO has several LCD models in the market today that meet the Tier 2 standard, some four years before the proposed effective date of the standard. These models are using the latest technology and features and scan a range of screen sizes.

VIZIO in their letter to the Energy Commission have stated that although they do not meet the standard today for Plasma TVs, there are significant efficiency achievements in the near horizon that will allow them to meet the Tier 2 requirements in the next couple of years.

8. Power consumption for Panasonic's most popular size models, on average, has been reduced between 36-53 percent when compared with 2007 models.
9. The McLaughlin Consulting Group (MCG), a display market and technology consulting team, has endorsed the proposed two-tiered television energy standards and recommended that the Tier 1 and Tier 2 effective dates should be moved to July 1, 2010 and July 1, 2011, respectively.

The MCG in their letter stated that "proposed California standard will encourage innovation by providing momentum for companies to adopt currently available energy efficiency technologies and to also justify investments in various emerging technologies. Currently available technologies allow TVs to meet the Tier 2 levels today and emerging technologies will allow TVs to significantly exceed Tier 2 levels."

MCG also stated "we believe that the power efficiency gains can be delivered while sustaining the historical cost down trends of 10 percent cost reduction annually." California consumers "will benefit from energy cost savings, thus making the proposed standard extremely cost-effective for the state of California."

During the past several years, the MCG team has completed in depth performance and cost analysis of many of the key materials and components used in LCD backlights. Their studies and modeling of the polarization recycling films, brightness enhancement films, diffusers, and backlight architectures predict continuous improvement in performance as well as substantial cost reductions due to increased competition and production efficiencies.

10. Energy Efficient Organic LED (OLED) televisions are currently available in small sizes. The size is expected to grow larger in the near future. OLED televisions do not require a backlight to function and use significantly less power during operation. Considering how much less energy OLEDs consume over current LCD and Plasma, OLED televisions will likely to become more prominent in the future.

Based on facts in the record, the Energy Commission has determined that the proposed energy efficiency standards for televisions are technically feasible and attainable as required by the Public Resources Code.

Finally, the Public Resources Code requires that the energy efficiency standards adopted by the Energy Commission must “not result in any added total costs to the consumer over the designed life of the television”. The Energy Commission has made a determination for the proposed efficiency standards. Based on the record before it, the Energy Commission has determined that there will be no increase in the purchase price of televisions due to the proposed efficiency standards because existing technologies, such as the use new phosphors with enhanced gas mixtures that causes pixels to glow can improve the efficiency of Plasma televisions and the use of light ray dispersing plastic film for LCD technology actually reduces both the number of energy using lamps and the size of the power supply needed thus reducing the total cost to build the television. Other strategies used in the proposed efficiency standard to improve television efficiency include changing the “as-shipped” brightness settings of television sets, at zero cost, and/or including one or more of a variety of television efficiency technologies. Thus, the efficiency standards can be met by incorporating these or other efficiency technologies in televisions, which in turn allow manufacturing changes that in many cases more than offset any increased cost, leading to low or zero net costs increases depending on the specific routes the manufacturer chooses to pursue. The added total cost is obtained by comparing the cost and performance of a typical model that the consumer would be expected to purchase with the proposed standard in effect, to the cost and performance of a typical model that the consumer would be expected to purchase without the proposed standard in effect. The Energy Commission estimated from information in the record that the statewide benefit from the proposed efficiency standards for televisions will result in a savings to consumers of \$8.1 billion during the first ten years the standards are in effect.

## **LIST OF DOCUMENTS INCORPORATED BY REFERENCE**

### **FEDERAL TEST METHODS**

10 CFR Pt. 430, Subpt. B, App. H

Copies available from: Superintendent of Documents  
U.S. Government Printing Office  
Washington, DC 20402  
[www.access.gpo.gov/nara/cfr](http://www.access.gpo.gov/nara/cfr)  
[www.gpoaccess.gov/cfr/](http://www.gpoaccess.gov/cfr/)

ENERGY STAR Program Requirements for TVs: Version 3.0 and Version 4.0

Copies available from: US EPA  
Climate Protection Partnership  
ENERGY STAR Programs Hotline & Distribution  
(MS-6202J)  
1200 Pennsylvania Ave NW  
Washington, DC 20460  
[www.energystar.gov](http://www.energystar.gov)

### **INTERNATIONAL ELECTROTECHNICAL COMMISSION (IEC)**

IEC 62087: 2002 (E) *Methods for Measurements for the Power Consumption of Audio Video, and Related Equipment.*

IEC 62087 Edition 2.0 “Methods of Measurement for the Power Consumption of Audio, Video and Related Equipment,”

IEC 62301, Ed 1.0 “Household Electrical Appliances- Measurement of Standby Power”

Copies available from: IEC Central Office  
3, rue de Varembe  
P.O. Box 131  
CH – 1211 Geneva 20  
Switzerland  
Phone: +41 22 919 02 11

### **FEDERAL LAW**

The proposed amendments conflict with existing federal law. The U.S. DOE has a test procedure for television sets, found in 10 CFR Pt. 430, Subpt. B, App. H, but that test method cannot be used to measure the energy consumption of the digital TVs that compose nearly the entirety of California’s market and is the focus of the proposed regulations.

## **OTHER STATUTORY REQUIREMENTS**

California law requires that the Energy Commission's *Appliance Efficiency Regulations*

- (1) apply to appliances that use a significant amount of energy on a statewide basis,
- (2) be based on feasible and attainable efficiencies or feasible improved efficiencies, and
- (3) be cost-effective based on a reasonable use pattern (i.e., not result in added total costs to the consumer, considering both the increased costs of the efficiency improvement and the reduced utility bill costs resulting from the improved efficiency, over the design life of the appliance). (Pub. Resources Code section 25402(c)(1)).

## **LOCAL MANDATE**

The proposed amendments will not impose a mandate on state or local agencies or districts.

## **ECONOMIC AND FISCAL IMPACTS**

The Energy Commission has made the following initial determinations.

### **FISCAL IMPACT**

**Costs Requiring Reimbursement.** The proposed amendments will not impose on local agencies or school districts any costs for which Government Code sections 17500 - 17630 require reimbursement.

**Other Non-Discretionary Costs or Savings for Local Agencies.** Local agencies that purchase televisions subject to efficiency standards sometimes have to pay increased purchase costs for those appliances. However, those costs are always recovered by reductions in electricity bills. In the case of televisions there are no estimated costs to local agencies.

**Costs or Savings for State Agencies.** State agencies that purchase televisions subject to efficiency standards sometimes have to pay increased purchase costs for those appliances. However, those costs are always recovered by reductions in electricity bills. In the case of televisions there are no estimated costs to state agencies.

**Cost or Savings in Federal Funding to the State.** The proposed amendments will not result in any costs or savings in federal funding to the state.

## **EFFECT ON HOUSING COSTS**

There will be no significant effect on housing costs. The costs of owning and operating a home will decrease slightly as a result of lower electricity costs by using the efficient televisions. The Energy Commission has determined that the proposed efficiency standards will not result in added total costs to the consumer, considering both the increased costs of the efficiency improvement and the reduced utility bill costs resulting from the improved efficiency, over the design life of the appliance.

## **SIGNIFICANT STATEWIDE ADVERSE ECONOMIC IMPACT DIRECTLY AFFECTING BUSINESS, INCLUDING THE ABILITY OF CALIFORNIA BUSINESSES TO COMPETE WITH BUSINESSES IN OTHER STATES**

The Energy Commission has made an initial determination that there will be no significant statewide adverse economic, fiscal, or environmental impact directly affecting businesses, including small businesses, as a result of the proposed amendments, including the ability of California businesses to compete with businesses in other states.

Based on the record before it the Energy Commission has determined that there will be no increase in the purchase price of televisions due to the proposed efficiency standards because existing technologies, such as the use new phosphors with enhanced gas mixtures can improve the efficiency of Plasma televisions, and the use light ray dispersing plastic film, actually reduces the number of energy using lamps and the size of the power supply needed, thus reducing the cost to build the television. Other strategies used in the proposed efficiency standard to improve television efficiency include changing the “as-shipped” brightness settings of television sets, at zero cost, and/or including one or more of a variety of television efficiency technologies. Thus, the efficiency standards can be met by incorporating these efficiency technologies in televisions, allow manufacturing changes such that more than offset any increased cost, leading to lower or zero net costs increases. Efficient televisions on the market today which meet proposed standards are not more expensive than less efficient models. U.S. Environmental Protection Agency analysis of the market shows that the manufacturer suggested retail price (MSRP) of televisions which meet more stringent standards are similar to those which do not.<sup>3</sup> Because the Energy Commission has made a finding that the proposed efficient televisions meeting the standard are currently feasible, or will be feasible when the standards become effective, and there is no added cost to build the more efficient televisions, there will be no adverse economic impact to business nor an adverse impact of California Businesses to complete with businesses in other states.

In addition, Energy Commission staff have determined that the proposed regulations would save consumers 6515 GWh annually over a ten year period. Staff have determined that the value of this energy savings for California consumers over the

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<sup>3</sup>[http://www.energystar.gov/ia/partners/prod\\_development/revisions/downloads/television/ENERGY\\_STAR\\_TV\\_Stakeholder\\_Webinar\\_Presentation\\_72809.pdf](http://www.energystar.gov/ia/partners/prod_development/revisions/downloads/television/ENERGY_STAR_TV_Stakeholder_Webinar_Presentation_72809.pdf)

lifetime of the television will be \$8.1 billion. Staff believe this \$8.1 billion in consumer energy cost savings could stimulate California business because this \$8.1 billion is an increase in disposal income that the consumer would otherwise be spending in higher energy bills due to the use of inefficient televisions.

Nevertheless, the Energy Commission invites interested persons to submit alternative proposals to lessen any adverse economic impact on business that might exist, which may include the following considerations:

- (i) Establishment of differing compliance or reporting requirements, or timetables that take into account the resources available to businesses.
- (ii) Consolidation or simplification of compliance and reporting requirements for businesses.
- (iii) Use of performance standards rather than prescriptive standards.
- (iv) Exemption or partial exemption from the regulatory requirements for businesses.

## **IMPACTS ON THE CREATION OR ELIMINATION OF JOBS WITHIN THE STATE, THE CREATION OF NEW BUSINESSES OR THE ELIMINATION OF EXISTING BUSINESSES, OR THE EXPANSION OF BUSINESSES IN CALIFORNIA**

The proposed amendments will have no impact on the creation or elimination of jobs within the state, the creation of new businesses, the elimination of existing businesses, or the expansion of businesses in California.

Based on the record before it the Energy Commission has determined that there will be no increase in the purchase price of televisions due to the proposed efficiency standards, because existing technologies, such as the use new phosphors with enhanced gas mixtures can improve the efficiency of Plasma televisions, and the use light ray dispersing plastic film, actually reduces the number of energy using lamps and the size of the power supply needed, thus reducing the cost to build the television. Other strategies used in the proposed efficiency standard to improve television efficiency include changing the “as-shipped” brightness settings of television sets, at zero cost, and/or including one or more of a variety of television efficiency technologies. Thus, the efficiency standards can be met by incorporating these efficiency technologies in televisions, allow manufacturing changes such that more than offset any increased cost, leading to lower or zero net costs increases. Because the Energy Commission has made a finding that the proposed efficient televisions meeting the standard are currently feasible, or will be feasible when the standards become effective, and there is no added cost to built the more efficient televisions, there will be no adverse economic impact to business nor an adverse impact of California businesses to complete with businesses in other states. Without impact on California businesses there is no reason that the proposed standards would lead to job losses.

In addition the Energy Commission staff have determined that the proposed regulations would save 6515 GWh annually over a ten year period. Staff have determined that the value of this energy savings for the consumer over this period will be \$8.1 billion. Staff believe this \$8.1 billion in consumer energy cost savings could stimulate consumer spending or investment which would result in the creation of jobs.

## **COST IMPACTS ON REPRESENTATIVE PERSON OR BUSINESS**

There will be no significant cost impacts on businesses and individuals that purchase televisions subject to efficiency standards sometimes. The costs of owning and operating a television will decrease as a result of lower electricity costs by using the efficient televisions. The Energy Commission has determined that the proposed efficiency standards will not result in added total costs to the consumer, considering both the increased costs of the efficiency improvement and the reduced utility bill costs resulting from the improved efficiency, over the design life of the appliance.

## **BUSINESS REPORTS**

The proposed amendments to Appliance Efficiency Regulations would require mandatory data submittal of energy efficiency data for manufacturers (i.e., Business Reports) to the Energy Commission about the televisions that they manufacture. (In California, there are few manufacturers of the appliances that would be added to the regulations by the proposed amendments.) The Energy Commission estimates that the annual reporting cost to be \$400 per manufacturer and that the proposed amendments will not alter this cost substantially.

It is necessary for the health, safety, or welfare of the people of the state that the proposed regulations apply to business, for two basic reasons. First, the Legislature requires the Energy Commission to adopt efficiency standards, and the submittal of data is necessary to determine compliance with the standards. Second, the data required to be submitted will be used to increase consumer awareness, to complement utility efficiency programs, and for research, all of which will foster additional efficiency, which, in turn, will lead to economic, energy reliability, and environmental benefits.

## **SMALL BUSINESS**

There will be no significant cost impacts on small businesses that purchase televisions subject to efficiency standards sometimes. The cost of owning and operating a television will decrease as a result of lower electricity costs by using the efficient televisions. The Energy Commission has determined that the proposed efficiency standards will not result in added total costs to the consumer, considering both the increased costs of the efficiency improvement and the reduced utility bill costs resulting from the improved efficiency, over the design life of the appliance.

## **ALTERNATIVES**

Before it adopts the proposed amendments, the Energy Commission must determine that no reasonable alternative it considered, or that has otherwise been identified and brought to its attention, would be more effective in carrying out the purpose for which the amendments are proposed or would be as effective as and less burdensome to affected private persons than the proposed amendments. To date, the Energy Commission has found no alternatives to the proposed action that would be more effective, or as effective and less burdensome.

The staff of the Energy Commission investigated as an alternative to the proposed efficiency standards the energy savings expected from relying only on the U.S. EPA's voluntary ENERGY STAR<sup>®</sup> Program for television. As a result of that investigation staff have determined that the voluntary ENERGY STAR<sup>®</sup> program would only obtain 35 percent the calculated \$8.1 billion in energy efficiency for the consumer that was calculated for the proposed efficiency standards.

Staff therefore has determined that:

- (1) the record supports that the energy savings difference from adopting the proposed efficiency standards for televisions instead of relying on the voluntary ENERGY STAR<sup>®</sup> Program results in a "significant amount of energy savings "on a statewide basis" pursuant to Public Resources Code section 25402(c)(1);
- (2) the record supports that the proposed efficiency standards are "based on feasible and attainable efficiencies" of television currently being made and being proposed by the manufacturers, and that these efficient televisions will result in a significant reduction in California's energy "consumption growth rates" pursuant to Public Resources Code section 25402(c)(1);
- (3) the record supports the that the proposed efficiency standards will "not result in any added total cost for the consumers over the designed life" of the televisions pursuant to Public Resources Code section 25402(c)(1) and that there may be no incremental cost difference between the efficient televisions and the energy wasting television currently be sold; and
- (4) in calculating the cost-effectiveness of the efficiency standards, staff considered "the value of the energy saved, impact on product efficacy for the consumer, and the life cycle cost to the consumer of complying with the standard" pursuant to Public Resources Code section 25402(c)(1).

## **DESIGNATED CONTACT PERSONS**

Please contact the following person, preferably by e-mail, for general information about the proceeding or to obtain any document relevant to the proceeding, including the



Express Terms, the Initial Statement of Reasons, the Form 399, and any other document in the rulemaking file:

Angelica Ramos  
California Energy Commission  
1516 Ninth Street, Mail Station 25  
Sacramento, California 95814-5512  
Telephone: 916-654-4147  
Fax: 916-654-4304  
E-mail: [[aromo@energy.state.ca.us](mailto:aromo@energy.state.ca.us)]

Please contact the following person, preferably by e-mail, for substantive questions:

Harinder Singh  
California Energy Commission  
1516 Ninth Street, Mail Station 25  
Sacramento, California 95814-5512  
Telephone: 916-654-4091  
Fax: 916-654-4304  
E-mail: [[hsingh@energy.state.ca.us](mailto:hsingh@energy.state.ca.us)]

The backup contact person for substantive questions is:

Kenneth Rider  
California Energy Commission  
1516 Ninth Street, Mail Station 25  
Sacramento, California 95814-5512  
Telephone: 916-654-5006  
Fax: 916-654-4304  
E-mail: [[krider@energy.state.ca.us](mailto:krider@energy.state.ca.us)]

Mr. Singh and Mr. Rider also can assist in obtaining documents and in answering general questions.

## **PUBLIC ADVISER**

The Energy Commission's Public Adviser's Office provides the public assistance in participating in Energy Commission activities. If you want information on how to participate in this rulemaking, please contact:

Public Adviser's Office  
California Energy Commission  
1516 Ninth Street, Mail Station 12  
Sacramento, California 95814-5512  
Telephone: 916-654-4489  
Fax: 916-654-4493  
E-mail: [[PublicAdviser@energy.state.ca.us](mailto:PublicAdviser@energy.state.ca.us)]

## **NEWS MEDIA INQUIRIES**

News media inquiries should be directed to the Media and Public Communications Office at (916) 654-4989, or by e-mail at [[mediaoffice@energy.state.ca.us](mailto:mediaoffice@energy.state.ca.us)].

## **AVAILABILITY OF THE TEXT OF THE PROPOSED AMENDMENTS (EXPRESS TERMS), THE INITIAL STATEMENT OF REASONS (ISOR), AND THE INFORMATION UPON WHICH THE PROPOSAL IS BASED (RULEMAKING FILE)**

The first action to take to obtain documents in this rulemaking proceeding is to visit the Energy Commission's appliance efficiency website at [[www.energy.ca.gov/appliances](http://www.energy.ca.gov/appliances)].

The website will have all of the documents prepared by the Energy Commission, including the Express Terms of the proposed amendments (written in plain English and set forth in a format that indicates both the existing text and the proposed text), the Initial Statement of Reasons, and all documents relied upon by the Energy Commission, as well as most of the other documents in the rulemaking file.

The Express Terms and the Initial Statement of Reasons are also available at no cost from the contact person, Angelica Ramos (see above).

The Energy Commission's Docket Office has available all of the documents in the rulemaking file; for copies, please contact:

Docket Office  
California Energy Commission  
1516 Ninth Street, MS 4  
Sacramento, California 95814-5504  
916-654-5076

## **AVAILABILITY OF MODIFIED AMENDMENTS (15-DAY LANGUAGE)**

At the **November 4, 2009** adoption hearing, the Energy Commission may adopt the proposed amendments substantially as described in this NOPA. If modifications are made, and they are sufficiently related to the originally-proposed amendments, the full modified text with changes clearly indicated will be made available to the public at least 15 days before the Energy Commission adopts the amendments. A notice of the availability of any such text will be placed on the Energy Commission's website and will be mailed to all persons to whom this notice is being mailed, who submitted written or oral comments at any hearing, who submitted written comments during the public comment period, or who requested to receive such notices. In addition, copies may be requested from the contact person named above and from the Docket Office. The Energy Commission will accept written comments on any such modified text for at least 15 days after the text is made available to the public. Adoption of the 15-Day language will be considered at a public hearing scheduled in the notice of availability.

## **FINAL STATEMENT OF REASONS**

The Energy Commission will prepare a Final Statement of Reasons on the amendments, responding to all relevant comments made during the proceeding. The Final Statement of Reasons will be available from the contact person named above and from the Docket Office, and will be posted on the Energy Commission's website.

## **INTERNET ACCESS**

Documents prepared by the Energy Commission for this rulemaking, including this NOPA, the Express Terms, the ISOR, and most other documents in the rulemaking file, will be posted on the Energy Commission's website, [[www.energy.ca.gov/appliances](http://www.energy.ca.gov/appliances)].

**Note:** The California Energy Commission's formal name is the State Energy Resources Conservation and Development Commission.