

**CALIFORNIA ENERGY COMMISSION**1516 Ninth Street  
Sacramento, California 95814Main website: [www.energy.ca.gov](http://www.energy.ca.gov)**Notice of Completion of the Draft Environmental Impact Report  
And Notice of Public Hearing for Comment**

Date: August 14, 2008

To: Affected State Agencies, Interested Parties and Organizations

Subject: Notice of Completion of the Draft Environmental Impact Report  
For Proposed Lighting Efficiency Standards

Lead Agency: California Energy Commission

Contact: Peter Strait  
California Energy Commission  
1516 Ninth Street, MS 25  
Sacramento, CA 95814  
Telephone: (916) 651-9375  
[Pstrait@energy.state.ca.us](mailto:Pstrait@energy.state.ca.us)

|               |             |
|---------------|-------------|
| <b>DOCKET</b> |             |
| 08-AREP-1A    |             |
| DATE          | AUG 14 2008 |
| RECD.         | AUG 29 2008 |

**PURPOSE**

The California Energy Commission (Energy Commission) is releasing a draft environmental impact report (DEIR) for public review and comment on proposed statewide lighting efficiency standards that would increase the use of mercury containing compact fluorescent lamps (CFLs) and fluorescent lamp tubes. The DEIR analyzes the potential environmental impacts of approving the proposed lighting standards.

The DEIR was prepared in compliance with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines (Title 14 of the California Code of Regulations, Section 15000 et. seq.). The Energy Commission did not identify any Responsible Agencies because the Energy Commission is the only state agency with authority to adopt and enforce lighting efficiency standards. This notice solicits the views of affected agencies and interested members of the public regarding the adequacy of the DEIR. All comments submitted within the comment period will be responded to in writing in the final environmental impact report.

## PROJECT LOCATION

The proposed adoption of the lighting efficiency regulations is a statewide regulatory change. As such, the project area is the State of California.

## PROJECT DESCRIPTION

The Energy Commission intends to accelerate the effective date of federal Tier I and Tier II lighting efficiency standards. The proposed lighting standard for the federal Tier I standards would become effective one year earlier, beginning in 2011 in California, and would require general service incandescent lamps to use 30 percent less energy than current general service lamps. The proposed lighting standard for the federal Tier II standards would become effective two years earlier, beginning in 2018 in California, and would require general service lamps to use 60 percent less energy than current general service lamps. The project also includes an increase in efficiency for portable lighting fixtures.

It is estimated that accelerating the federal lighting standards and increasing the efficiency for portable lighting fixtures will save California a minimum of 1,689 gigawatt hours per year and reduce greenhouse gas emissions by at least 443,732 metric tons per year. These savings will translate into reduction of criteria air pollutants by 1,080 metric tons (ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter of 10 microns and smaller in size (PM-10), PM-2.5, and lead).

## PROPOSED LIGHTING EFFICIENCY STANDARDS:

The following Tier I and Tier II proposed lighting standards for State-Regulated General Service Lamps will prohibit the use of GU-24 sockets for incandescent lamps and require the following efficiencies:

### State-Regulated General Service Incandescent Lamps: Federal Tier I Adoption

| Rated Lumen Range | Maximum Rated Wattage | Minimum Rated Life Time | Proposed California Effective Date | Federal Effective Date |
|-------------------|-----------------------|-------------------------|------------------------------------|------------------------|
| 1490-2600         | 72                    | 1,000                   | Jan. 1, 2011                       | Jan. 1, 2012           |
| 1050-1489         | 53                    | 1,000                   | Jan. 1, 2012                       | Jan. 1, 2013           |
| 750-1049          | 43                    | 1,000                   | Jan. 1, 2013                       | Jan. 1, 2014           |
| 310-749           | 29                    | 1,000                   | Jan. 1, 2014                       | Jan. 1, 2014           |

## State-Regulated General Service Lamps: Federal Tier II Adoption

| Lumen Range | Minimum Lamp Efficacy | Minimum Rated Life Time | Proposed California Effective Date | Federal Effective Date |
|-------------|-----------------------|-------------------------|------------------------------------|------------------------|
| All         | 45 lumens per watt    | 1,000                   | Jan. 1, 2018                       | Jan. 1, 2020*          |

\*Federal appliance law, 42 USC section 6295(i) (6)(A)(vi) gives California the authority to adopt on or after January 1, 2018: (1) a final rule adopted by DOE; (2) the backstop requirement of a minimum efficacy standard of 45 lumens per watt if DOE fails to adopt a final rule; or (3) any California lighting efficiency standard pursuant to Public Resources Code section 25402(c)(1) if DOE fails to adopt a final rule. The federal effective date of January 1, 2020, refers to the date by which DOE must adopt a final rule that may or may not be the backstop requirement California is adopting at this time.

### Portable Lighting Fixtures

The proposed regulations set minimum system efficiency requirements lamps used in portable luminaires and minimum performance requirements for categories of portable luminaires. The regulations also include five different compliance options for meeting the portable lighting efficiency standards:

- Be equipped with a dedicated fluorescent lamp socket;
- Be a light emitting diode (LED) luminaire, or a portable luminaire with an LED light engine;
- Be equipped with GU-24 sockets that can only support high efficiency lamps;
- Be pre-packaged and sold with high efficacy compact fluorescent lamps based on current Energy Star efficiency levels, or with high efficacy LED lamps;
- If equipped with single-ended, non-screw based halogen lamp sockets (line or low voltage), must include a dimmer control or high low control and be rated for a maximum of 100 watts.

Additionally, portable luminaires have the following requirements:

- Portable luminaires that have internal power supplies shall have zero standby power when the luminaire is turned off.
- Beginning January 1, 2013, portable luminaire manufacturers selling products in California must submit to the Energy Commission the annual unit sales of portable non-screw based halogen luminaires sold in California.

GU-24 luminaires, sockets, and adaptors have the following requirements:

- Permanently installed and portable luminaires with GU-24 sockets manufactured on or after January 1, 2010 shall not be rated for use with incandescent lamps of any type, including line voltage or low voltage.
- GU-24 adaptors manufactured on or after January 1, 2010 shall not adapt a GU-24 socket to any other line voltage socket.

## **SIGNIFICANT ENVIRONMENTAL IMPACTS**

Given current technology and reasonable estimates of product availability, the impact of the proposed lighting standards are likely to contribute to an increased use of CFLs, fluorescent lamp tubes, and other highly energy efficient lamps for general service lighting and portable lighting fixtures. Current use of CFLs has been estimated to be used for 9 to 15 percent of all lamps used for general service lamps and portable lighting fixtures.

The California Department of Toxic Substances Control (DTSC) is mandated to regulate “hazardous waste” and to develop means of keeping such material out of the non-hazardous solid waste stream. In a prior rulemaking DTSC defined fluorescent lamps (including both CFLs and fluorescent tubes) as a M003 listed Universal Waste because DTSC found that any released mercury or mercury compounds contained in the lamps presents a human health and environmental risk. All M003 listed Universal Waste must be managed according to the Universal Waste regulations and sent to a qualified recycler to ensure that the mercury is kept out of the environment. It cannot be disposed in municipal landfills.

The higher number of lamps that may be sold due to the proposed lighting standards, coupled with information that indicates 95 percent of the CFLs and fluorescent lamp tubes purchased today are being illegally disposed in municipal landfills, indicates that there is a potential environmental problem due to mercury released into the environment. Thus, the staff believes that there is a potential for significant environmental impacts due to the use and illegal disposal of M003 waste directly resulting from the adoption of the proposed lighting standards.

## **RECOMMENDED MITIGATION MEASURES**

In the rulemaking in which DTSC classified fluorescent lamps as a Universal Waste, DTSC made a finding in its CEQA analysis that the required management of M003 waste under the Universal Waste regulations would not result in a significant environmental impact on:

- ▶ Air Quality
- ▶ Biological Resources
- ▶ Hazards and Hazardous Materials
- ▶ Hydrology and Water Quality
- ▶ Transportation and Traffic

Because no new, relevant facts or analyses have emerged since DTSC made its findings concerning the environmental impacts of fluorescent lamps as a M003 Universal Waste, the staff makes the same findings and in so doing finds that a Less-Than-Significant impact on the environment will result from the proposed lighting standards, if the disposal measures required under the Universal Waste regulations are required and carried out.

The staff also finds that this mitigation is within the responsibility and jurisdiction of DTSC and has been adopted by DTSC.

### **FINDING OF SIGNIFICIANCE**

The staff finds that the project's potential on Air Quality, Biological Resources, Hazards and Hazardous Materials, Hydrology and Water Quality, and Transportation and Traffic will be Potentially Significant unless mercury emissions are mitigated through the implementation of the Universal Waste regulations for the M003 listed waste.

### **DEADLINE FOR SUBMITTING COMMENTS**

The DEIR is available for public review for 45 days, beginning August 15, 2008, and through October 6, 2008. Written comments, either hardcopies or electronic, must be received by 5 p.m. on **October 6, 2008**, at the following address.

**California Energy Commission  
1516 Ninth Street  
Sacramento, CA 95814-5504  
Docket No. 07-AAER-03-A**

**Contact:  
Peter Strait at (916) 65149375  
E-mail: [Pstrait@energy.state.ca.us](mailto:Pstrait@energy.state.ca.us)**

All written comments must indicate "Docket No. 07-AAER-3-A: Comments on DEIR" When comments are emailed on behalf of an organization, the comments must be a scanned copy of the original on the organization's letterhead and include a signature of an authorized representative.

The DEIR and documents related to the DEIR are available for review during regular business hours at the above address. The DEIR may also be viewed on the Energy Commission's Web site:

<http://www.energy.ca.gov/appliances/2008rulemaking/index.html>.

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

Public notices of the availability of the DEIR have been published in the *Los Angeles Times*, *San Francisco Chronicle*, and the *Sacramento Bee* newspapers and sent out to the Energy Commission's service list.

## **PUBLIC HEARING**

The Energy Commission's Energy Efficiency Committee will hold a public hearing to receive comment on the DEIR on:

**September 17, 2008  
9 a.m.  
California Energy Commission  
Hearing Room A  
1516 Ninth Street  
Sacramento, California  
(Wheelchair accessible)**

Audio for the September 17, 2008 Committee hearing will be broadcast over the Internet. Details 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. If possible, please provide written comments to be considered at the Committee hearing by September 15, 2008.