Dear Lighting Manufacturer,

Thank you for your interest in the California Investor Owned Utility (IOU) Residential Lighting Incentive Program.

The IOUs are interested in expanding the quality and value of LEDs in their programs and would love to talk with manufacturers of new and existing LED products. Be aware that CFLs are still an important product in the market and are still of great value to the IOUs. All CFLs must be ENERGY STAR® certified.

We have transitioned the review of LED reports and products to the California Lighting Technology Center (CLTC), whose contact information is provided at the end of this document. Please do not submit reports until asked to by the CLTC. The IOUs will inform the CLTC of manufacturers to ask and to send procedures to them.

All LED products in the Residential Lighting Incentive Program are required to be designed with characteristics meeting the VOLUNTARY CALIFORNIA QUALITY LIGHT-EMITTING DIODE (LED) LAMP SPECIFICATION (CEC Specifications) in its entirety. The documents can be found at these addresses:

New revision:  http://www.energy.ca.gov/appliances/led_lamp_spec/documents/

The newer revision replaces a section of the older version, all the rest of the older version remains in effect.

In an attempt to serve manufacturers better, we are making this information available up-front. This can help manufacturers be more effective with their design and production costs. Here are a few facts to remember when designing products to meet the CEC Specifications mentioned. The following is not a complete set of rules, but covers many important topics. Consult the actual specifications when designing products.

- The LED product must have color chromaticity coordinates within a 4 step MacAdam ellipse of the ANSI Solid State center-points, the same center-points used by ENERGY STAR.
- Must have a CRI of 90 or greater
- R9 must be 51 or greater
- Must have power factor of 0.9 or greater
- Must be dimmable down to 10% of maximum light output on the dimmer switch with no visual flicker at any dimmer setting and must have no audible noise.
- To be labeled a flood, the product must have a beam angle of at least 45 degrees, and be 120 degrees or less.
- Nominal CCT may be either 2,700 or 3,000 Kelvin.
- All LED Lamps to receive incentives shall be backed by a minimum five-year warranty, from date of purchase. Lamp packaging shall state: “Warranty: This lamp has a [warranty term]-year, free replacement warranty”, and a phone number or website address for consumer complaint resolution. The complete written warranty shall be printed on the exterior of the packaging and be included within the lamp packaging. [If multi-pack, it can start with “These lamps have . . .”. If retrofit kit, “This product has . . .” ]
- The manufacturer of the lamp is solely responsible for honoring this warranty; intermediate parties (e.g. showrooms, electrical distributors, retailers) are not responsible for honoring this warranty requirement.
• The packaging must have a list of compatible dimmers, or either a URL or QR code that links to a regularly updated list of compatible dimmers. This link will be tested prior to report review completion.

• On packaging, one of the following three descriptions must be printed on the exterior of the packaging, in => 8 point type:
  • “Omnidirectional”
  • “Floodlamp, [beam angle]° beam angle”
  • “Spotlight, [beam angle] ° beam angle”

• All characteristics such as lumens, rated wattage, CCT, CRI, and others must appear on packaging. For floodlamps and spotlights, instead of lumens, the exterior of the lamp packaging may alternatively carry the “non-standard light output diagram” from the lamp labeling requirements of the ENERGY STAR Product Specification for Lamps.

• Numerous packaging requirements exist. The manufacturer must send package art or text to show compliance. Also labeling on the lamp or retrofit kit itself will need to be reviewed.

• Incentives are offered only for products that are floodlamps, spotlights, or omnidirectional lamps.

• Lamps must ALSO meet or exceed all current ENERGY STAR Program Requirements / Product Specification for Lamps – for recessed retrofit kits, the ENERGY STAR Luminaire Program Requirements.

• No incentives for hardwired fixtures are currently offered in the program.

• All products receiving incentives must either be ENERGY STAR certified, or in active life testing to become ENERGY STAR Certified. Evidence of this is required when submitting reports.

• If the manufacturer’s product is selected for review by any of the 3 California IOU Program Managers, the procedures documents will be sent with other details to address and instructions to follow.

• Include the most recent ENERGY STAR lab report, eg. Zero hour, 3,000 hour, 6,000 hour, etc.

• If you are new either to the program or to participating with LEDs in the program, do your homework. Before designing or requesting review of a product, first contact each IOU Program Manager with whom you wish to participate. Establish that there is a good fit for it in their program and consider realistic quantities. Understand each IOU program separately and the many manufacturer requirements such as the need for local representation and retailer compliance. Understand the level of work and expertise required to submit reports for review. Looking at the pros and cons could direct you toward the most promising products to pursue. Conversely, it could help see if the program itself meets your needs or expectations. Check for availability of funds and seasonality of the funding to gain perspective of timing opportunities for your product in the program. With this approach, you will have more than good luck.

The manufacturer’s contact for product specification questions, as well as review of reports and required documents for LED Products claiming to meet CEC Voluntary LED Specifications is:

Nicole Graeber
California Lighting Technology Center at University of California, Davis (CLTC)

Ref: IOU CQS Evaluation Program
633 Pena Drive
Davis, CA 95618
Phone: 530.747.3847 | negraeber@ucdavis.edu

IOU Program Managers to contact with program questions are: PG&E: Winsey Kan 415-973-8981 -- SCE: Richard Greenburg 626-302-0728 -- SDG&E: Jeff Cox : 858-650-6125