
SMUD's 2010 Small Commercial Prescriptive Lighting Incentive Program

Program Description

SMUD's 2010 Small Commercial Prescriptive Lighting Incentive Program is designed to reach small commercial customers, offering significant incentives to ensure participation by this customer segment. The incentives are paid directly to the installing lighting contractor. Under the terms of this program the customer is defined as an owner, manager or tenant responsible for paying the electric bill at the site. Participation in this program is on a first come, first served basis and the program will end when all available funding is committed.

Contractor Eligibility

Contractors must hold a current C-10 electrical contractor license to participate in this program. All projects must be completed within **90 days** of approval of the project package submitted to SMUD's Program Manager. **The contractor must follow all program criteria as provided in this document, as well as any instructions or training provided by SMUD program staff. All products installed as a result of this program shall comply with the product technical specifications provided within this document.** This program is eligible for random pre and post project inspections.

Customer Eligibility

To qualify for this program's incentives, contractors must determine that the **customer's total demand is 300 kilowatts or less per location**. The total demand is the sum of all of the demand (kilowatts) measured by SMUD electric meters at a single customer location. Location is defined as the same business park, campus, strip mall or other sub-metered building. In addition, qualifying customers must currently operate their lighting system a minimum of one hour between 2 p.m. and 8 p.m. during summer weekdays, June through September. Customers with several small accounts at the same location, whose total connected load exceeds 300 kilowatts, are not eligible for participation under the terms of this program. However, all commercial customers are eligible for incentives paid through SMUD's customized lighting incentive program. If the customer does not have a copy of the bill, the **customer**, can call SMUD Commercial Call Center 1-877-7683 to get a verification of their account kW. Contractors are not to request this information from Prescriptive Lighting Staff.

Incentive Levels

The incentive levels have been set at a fixed amount per eligible measure as detailed in the 2010 Small Commercial Prescriptive Lighting Incentive Program worksheet. There is a **maximum total incentive of \$20,000 per location**. The contractor shall be responsible for ensuring that the resulting lighting levels, both horizontal and vertical foot candles, meet the recommendations of the Illuminating Engineering Society of North America (IESNA), as provided in the most recent edition of the IESNA Handbook. The general light distribution and uniformity will not change unless it changes to meet IESNA recommendations. If lamps are repositioned and/or reflectors added to fixtures, a situation of disability glare or discomfort glare shall not be created. **All lamps and ballasts in emergency lighting fixtures shall be replaced with the same number of lamps and ballasts, as found, one-for-one replacement.**

Program Process

- Contractor initiates sales call and determines customer's eligibility
- Contractor and customer sign contract and contractor completes incentive application, two-sided form (SMUD Form 5A)
- Contractor completes 2010 Small Commercial Prescriptive Lighting Incentive Excel worksheet
- The following steps should be followed to expedite the approval process:
 - Contractor faxes (732-7040) the two page SMUD Application form 5-A, along with a copy of the customer SMUD bill, and a copy of the contract between the customer and the contractor.
 - At the same time, the contractor is to e-mail the Excel worksheet to CommercialLighting@smud.org. We must receive this in Excel format.

Please do not scan and then e-mail the above mentioned forms. Due to overwhelming participation, and internal SMUD procedures, only faxed copies will be accepted.

Once the complete project package has been submitted to SMUD, the contractor **must** wait for SMUD to verify project eligibility before beginning work. The program staff will send project approval via e-mail to the contractor with the approved worksheet file attached, and the **contractor will use this approved worksheet as their final worksheet to SMUD following completion of the project, with any modifications to project scope noted**. If the project is not approved, the program staff will contact the contractor. **Contractor work may not proceed until receiving approval from SMUD's program staff. If the project is denied or modified, it is the contractor responsibility to inform the customer.**

Projects involving SMUD financing must receive written approval from SMUD's financing staff before commencing work. Please inform program staff that financing is requested.

Contractor Payment

When the project is completed, contractors must submit the following documents to SMUD to receive payment:

1. Any and all contract addenda covering changes from the approved scope of work in the contract.
2. When submitting the completed final program worksheet, the worksheet should be changed to reflect the *actual* "**Installed Measures**" and the total "**Cost of the Project**". The status box **MUST** be changed to "**Final**".
3. The following 3 items **MUST** be faxed (732-7040):
 - A copy of the completed "Final" Excel worksheet.
 - Notice of Completion Form 2393 (signed and dated by both the customer and contractor).
 - An invoice for the amount owed to the contractor by SMUD.

Technical Specifications

Electronic Ballasts

- Normal ballast factor acceptable range between 0.85 -0.88 must be used when de-lamping.
- Total Harmonic Distortion (THD) to be 20% or less
- Flicker Free
- Meet Underwriters Laboratory (UL)-listed Class P (Thermal Protection) requirements.
- Sound Rated A
- Maintain a light regulation of + / - 15% with + / - 10% input voltage variation
- A lamp current crest factor of < 1.7
- Comply with Federal Communications Commission (FCC) Rules and Regulations part 18, concerning Electromagnetic and Radio Frequency Interference, and comply with ANSI C82.11 and C82.2
- Three year warranty on parts and labor for replacement free of charge to the customer.
- Operate at 20,000 Hz or greater

Tubular Fluorescent Lamps

The following requirements must be met, and documented prior to approval of project. It is assumed that the majority of these projects will involve 4' lamps, but we realize other lengths are not uncommon. The 4' lamps in this program will be held to a higher standard than the others due to the availability of higher quality lamps and ballasts.

- **4' Lamps** Minimum initial lumens = 3100
Color Rendering Index (CRI) \geq 85
* **Note:** Use of 5000k color temperature lamps may have a minimum initial lumen output of 3000
- **2', 3', 6', and 8'** Minimum CRI = 85
- May use energy saving 30 Watt T-8 lamps if system efficacy maintains $>$ 90%. Lamps using less than 30 Watts are not allowed.
- Unused lamp holders must be removed on de-lamping projects.
- All lamps and ballasts in emergency lighting fixtures shall be replaced with the same number of lamps and ballasts as found, one for one replacement.
- Existing switching design is to be maintained.

Linear Fluorescent Fixture Retrofits

- All retrofit fixtures, internal reflectors, and lenses must be wiped clean to restore reflectance and lens efficiency
- **When delamping, lamp holders shall be re-centered, if original fixture design is maintained. For parabolic fixtures do not re-center lamp holders.**
- **Un-used lamp holders and ballasts are to be removed**
- All lamps and ballasts in emergency lighting fixtures shall be replaced with the same number of lamps and ballasts as found, one-for-one replacement
- **Existing switching design must be maintained**

Compact Fluorescent Lamps

- Meet UL-listed requirements
- Must be Energy Star labeled lamps for all compact fluorescent lamps \leq to 40 watts. For compact fluorescent lamps $>$ 40 watts, contractor to submit manufacturer's product literature for advance pre-approval before proposing an incentive to a customer.
- Self-ballasted CFL Rated Life shall be \geq 9,000 hours
- Use appropriate lamp type, non-reflector or reflector, and color for lighting application

Exit Signs

- Incentive available for **new LED exit sign fixtures only and must replace fixtures using incandescent lamps only**
- Fixture must be UL-listed
- Rated life \geq 10 years

Lenses & Reflectors

- Flat lenses will have a minimum thickness of 0.125
- Reflector material may be silver film, polished aluminum or white powder-coat
- Reflectivity shall be a minimum of 90%

Project Warranty

All lighting projects receiving incentives through the Commercial Prescriptive Lighting Program shall **warrant parts and labor for one year from date of installation. The exception is the 3-year warranty for 4' and 8' fluorescent electronic ballasts.**

2010 Small SMUD Commercial Prescriptive Lighting Incentive Program

Rodney E Turner
Energy Advisor (916) 732-5635

Greg Miller
Energy Advisor (916) 732-7482

**Sacramento Municipal Utility District (SMUD)
Commercial Services Department
P.O. Box 15830, M.S. A103
Sacramento, CA 95852-1830
Street Address: 6301 S Street, Sacramento, CA
Fax (916) 732-7040**

When delivering projects in person, please leave them with a SMUD Security Officer in the lobby of the Customer Services Center building located at 6301 S Street. Please place "Rod Turn ext. 5653 and/or Greg Miller ext. 7482" on the documents.

Removed florescent lamps are considered hazardous waste. All removed florescent lamps and PCB ballasts must be disposed of by sending to an approved Recycling Center. SMUD reserves the right to request documentation of disposal. Random calls to the customers asking if lamps and ballasts were left on site could result in suspension, or exclusion from further participation of SMUD's Prescriptive Lighting Program.