

Application No.: A.07-05-XXX

Exhibit No.: SCE-1

Witnesses: G. Rodrigues  
J. Nall  
M. Brown  
J. Holmes



SOUTHERN CALIFORNIA  
**EDISON**

An *EDISON INTERNATIONAL* Company

(U 338-E)

***Testimony of Southern California Edison Company in  
Support of Application for Approval of SCE's  
"Change A Light, Change The World," Compact  
Fluorescent Lamp Program***

Before the

**Public Utilities Commission of the State of California**

Rosemead, California

May 10, 2007

# Testimony of Southern California Edison Company in Support of Application for Approval of SCE’s “Change A Light, Change The World,” Compact Fluorescent Lamp Program

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1 I.

2 **OVERVIEW OF SCE'S "CHANGE A LIGHT, CHANGE THE WORLD," CFL PROGRAM**

3 Southern California Edison Company (SCE) hereby respectfully submits this testimony in  
4 support of its application requesting expedited treatment and approval of its program plans, budget, and  
5 ratemaking treatment for SCE's "Change A Light, Change The World," Compact Fluorescent Lamp  
6 (CFL) Program for 2007 and 2008 (Application) which SCE anticipates implementing by July 1, 2007,  
7 with the California Public Utilities Commission's (CPUC or Commission) support and approval.  
8 Concurrent with the filing of this Application, SCE is filing an advice letter on an expedited basis  
9 seeking authority to create a memorandum account to track costs associated with the implementation of  
10 SCE's "Change A Light, Change The World," CFL Program (CFL Program). As discussed in more  
11 detail below, activities associated with the implementation of the CFL Program include, but are not  
12 limited to, program design, contract development, purchase agreements, training and delivery of  
13 services.

14 SCE applauds the Commission for leading the way by initiating a statewide planning process to  
15 investigate and pursue Big Bold energy efficiency initiatives to meet California's resource planning and  
16 climate change goals. SCE believes the model it is proposing herein for low income neighborhoods is  
17 responsive to the Commission's leadership and also presents a model that can be expanded within the  
18 Commission's forthcoming Big Bold strategies initiative. With this in mind, SCE looks forward to  
19 working side-by-side with the Commission and all other interested stakeholders during that process  
20 which will inform the 2009-11 program cycle. In the meantime, however, given the significant  
21 immediate benefits that will accrue to low income customers who need bill savings now, the resource  
22 benefits and greenhouse gas reductions that can be captured immediately for California, the timely  
23 leveraging opportunity provided by the national ENERGY STAR® "Change A Light, Change The  
24 World" campaign, and reductions in the CARE subsidy that will benefit all ratepayers in the future  
25 through reductions in energy consumption by low income customers participating in this program, SCE  
26 believes that it is appropriate to request CPUC approval for SCE's "Change a Light, Change the World,"  
27 CFL Program now.

1 In summary, SCE's CFL Program will set the standard in California for national participation in  
2 the ENERGY STAR® "Change A Light, Change The World" campaign in which customers sign a  
3 pledge to install at least one CFL in their home. The CFL Program is intended to place the most cost  
4 effective and most practical energy-saving appliance in the hands of those customers most in need of bill  
5 savings. Through the CFL Program, SCE plans to reach one million homes in low income  
6 neighborhoods with an offer to provide six CFLs per home at no cost to the household in return for a  
7 customer pledge to immediately remove existing incandescent bulbs and replace them with the CFLs.  
8 SCE's CFL Program will fund a household-to-household neighborhood outreach campaign directed at  
9 low income neighborhoods throughout SCE's service territory. SCE will partner with community-based  
10 organizations (CBOs) to offer six CFL bulbs to each targeted home, with the goal of reaching 926,000  
11 homes, in addition to providing two additional CFLs to the 74,000 households<sup>1</sup> currently planned for  
12 treatment under SCE's existing 2007-8 Low Income Energy Efficiency (LIEE) program, for a total of  
13 one million homes reached. SCE plans to reach such one million homes by December 31, 2008.  
14 Accordingly, SCE is hereby seeking approval of a \$22.000 million CFL Program budget which is  
15 expected to generate 280.6 million kilowatt-hours of annual energy savings,<sup>2</sup> 23.7 MW of demand  
16 reduction<sup>3</sup> and 156,700 CO<sub>2</sub> tons of emission reductions,<sup>4</sup> which is the equivalent of removing nearly  
17 30,000 cars off California roads.<sup>5</sup>

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<sup>1</sup> SCE's existing LIEE program is currently funded to provide 4 CFLs in a total 74,000 homes during 2007-8.

<sup>2</sup> Energy savings prior to applying a net-to-gross factor, which accounts for program free ridership. The net-to-gross ratio for SCE's Low Income Energy Efficiency programs is 1.0, thus indicating no free ridership. In Service Factor of .9 and Load Shape Factor of 7.5% was determined according to 2006/08 Residential Upstream Lighting Program E3 Calculator.

<sup>3</sup> Demand reductions prior to applying a net-to-gross factor, which accounts for program free ridership. The net-to-gross ratio for SCE's Low Income Energy Efficiency programs is 1.0, thus indicating no free ridership. In Service Factor of 1.0 and Load Shape Factor of 7.5% was determined according to 2006/08 Residential Upstream Lighting Program E3 Calculator.

<sup>4</sup> Source - 2006/08 Energy Efficiency Program E3 Calculator.

<sup>5</sup> Source - D-05-09-043. The Calculation for this statistic is  $x \text{ metric ton CO}_2 / (.014418 \text{ metric tons CO}_2/\text{day/vehicle}) / 365 \text{ days per year} = \# \text{ of vehicles taken off the roads each year due to savings that year.}$

This testimony discusses the specific program strategy for the CFL Program for 2007 and 2008 and includes a detailed budget proposal, estimated energy savings impacts, and proposed ratemaking treatment.

	<b>Budget</b>	<b>Gross MWh</b>	<b>Summer Peak MW</b>	<b>Targeted Homes</b>	<b>CFLs</b>
<b>CFL Program</b>	<b>\$22,000,000</b>	<b>265,301</b>	<b>22.4</b>	<b>926,000</b>	<b>5,700,000</b>
Current LIEE	n/a <sup>[1]</sup>	15,253	1.3	74,000	300,000
<b>Total</b>	<b>\$ 22,000,000</b>	<b>280,554</b>	<b>23.7</b>	<b>1,000,000</b>	<b>6,000,000</b>

<sup>[1]</sup> Currently funded through 2007/08 LIEE program

**A. Background**

For many years, SCE has delivered Low Income Energy Efficiency services to low income customers. Through the recent Rulemaking on LIEE programs (R.07-01-042), the Commission has been exploring the proper size and scope for the LIEE program and a move from budget-based planning to a program that meets resource needs and criteria that address energy burden and bill savings for low income customers. Further, the draft Low Income Needs Assessment Phase II Report makes a convincing case that opportunities exist to relieve energy burden and high bills for low income customers.

The recent Rulemaking on LIEE programs has led to discussion of a goal to make all low income households energy efficient by 2015. SCE supports making low income households more energy efficient and believes there is no reason to delay the delivery of bill savings to those customers who need it most. SCE herein proposes to jump-start the Commission’s efforts to accelerate the delivery of resource benefits to California and bill savings to low income households. Rather than incorporating the CFL Program in the next LIEE program filing which would mean program implementation in 2009 at the earliest, this Application will result in SCE’s customers having measures in place as early as summer of 2007. As such, these customers will immediately begin to save energy, reduce greenhouse gas

1 emissions, and reduce their energy burden through lower bills. As in the past, SCE would continue with  
2 complementary approaches to meet the Commission’s energy efficiency policy objectives for low  
3 income customers in all current and future LIEE program offerings.

4 The Department of Energy and Environmental Protection Agency (EPA), through the ENERGY  
5 STAR® program, have initiated the “Change A Light, Change The World” campaign. The essential  
6 component of this program is a pledge by homeowners to replace at least one light with an ENERGY  
7 STAR® qualified CFL. SCE’s CFL Program will expand awareness of this national campaign in  
8 Southern California and will facilitate the ability of one million customers in predominantly low income  
9 neighborhoods to make this pledge. Linking SCE’s CFL Program with the ENERGY STAR® “Change  
10 A Light, Change The World” campaign will provide mutually beneficial support for both programs.  
11 SCE hopes this partnership will lead to expanded awareness and installation of CFLs throughout SCE’s  
12 service area, California and the nation. According to the ENERGY STAR® CFLs website, if every  
13 American home replaced just one light bulb with an ENERGY STAR® qualified bulb, our nation would  
14 save enough energy to light more than 2.5 million homes for a year and prevent greenhouse gases  
15 equivalent to the emissions of nearly 800,000 cars.<sup>6</sup> SCE’s CFL Program leverages national efforts to  
16 mainstream CFLs into homes and will bring energy savings to low income customers and resource  
17 benefits to California.

18  
19 **B. Program Goal**

20 SCE, through the CFL Program, will accelerate the delivery of energy efficient measures to low  
21 income households that will, in turn, reduce energy burden, provide bill savings, increase affordability  
22 of energy services, and reduce greenhouse gases. SCE’s CFL Program responds to these goals with a  
23 program that will provide immediate bill savings to low income customers while simultaneously  
24 delivering an estimated 280,554 in MWh savings and summer peak reduction of 23.7 MW. SCE’s CFL  
25 Program will reduce greenhouse gas emissions by an estimated 156,700 tons, equivalent to taking nearly

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<sup>6</sup> [www.energystar.gov/index.cfm?c=cfls.pr\\_cfls](http://www.energystar.gov/index.cfm?c=cfls.pr_cfls)

1 30,000 cars off the road. SCE’s CFL Program will also create a sense of partnership in predominantly  
2 low income communities through its broad program coverage, will leverage the presence of the national  
3 ENERGY STAR® “Change A Light, Change The World” program into low income households, and  
4 enable these households to pledge their commitment to energy savings and greenhouse gas reductions  
5 through their installation of energy efficient CFLs.

6 SCE estimates that approximately 30% of its residential customers are eligible for the LIEE  
7 program. By targeting neighborhoods with significant low income populations, SCE’s CFL Program  
8 will be able to reach a large number of homes with low product distribution costs that cannot be matched  
9 using traditional product distribution channels. Even though some homes in low income neighborhoods  
10 are not “low income” according to the CARE and LIEE eligibility standard of 200% of Federal Poverty  
11 Guidelines, the CFLs will nevertheless provide bill savings to customers and generate energy savings  
12 and summer on-peak demand reduction.

## 14 II.

### 15 SCE'S “CHANGE A LIGHT, CHANGE THE WORLD,” CFL PROGRAM PLAN AND 16 BUDGET

#### 18 A. Program Plan

19 SCE’s CFL Program is designed to deliver energy efficient CFLs to targeted low income  
20 neighborhoods thereby producing energy savings to the customer, reducing greenhouse gas emissions,  
21 and expanding awareness of “green” technologies in low income communities throughout SCE’s service  
22 territory.

23 SCE has longstanding experience in delivering energy saving measures to low income  
24 customers. SCE has in place existing partnerships with CBOs, manufacturers, and other stakeholders to  
25 deliver LIEE services to low income customers. SCE will expand upon this existing network to ensure  
26 that the CFL Program is delivered to customers by December 2008. SCE has considerable experience  
27 with directly installing CFLs in homes through the LIEE program. Directly installing CFLs is a



1 successful delivery approach when it is leveraged with the simultaneous assessment of a customer's  
2 home for the feasibility of installing additional measures. SCE's "Change A Light, Change The World,"  
3 CFL Program, however, builds on the visibility and success of the national ENERGY STAR® "Change  
4 A Light, Change The World" campaign and offers a unique opportunity to reduce delivery costs and  
5 quickly reach more customers by securing pledges from customers to immediately install CFLs. SCE's  
6 program design includes substantial training, quality assurance, and evaluation activities that will  
7 provide timely feedback on program delivery to ensure that CFLs are immediately installed.

8 SCE will employ a household-to-household approach to reach targeted low income  
9 neighborhoods with up to six million CFLs. SCE will partner with community-based and faith-based  
10 organizations (FBOs) that will employ a well-trained, established network of canvassers, and will buy  
11 CFLs in bulk at a volume discount to make the program strategy more cost efficient. Specifically, the  
12 proposed funds are intended to fund the bulk purchase and offering of six CFLs to 926,000 homes in  
13 targeted low income neighborhoods and to supplement existing LIEE funds for the purchase of two  
14 additional CFLs for each of the proposed 74,000 customer homes serviced under SCE's LIEE program  
15 which, but for SCE's CFL Program, would only get four CFLs.

16 SCE's CFL Program will place the most cost effective and most practical energy saving  
17 appliance in the hands of those customers most in need of bill savings and whose awareness of new  
18 environmentally friendly technologies may be lower than that of other customers due to their limited  
19 resources to obtain such devices. CFLs are a proven energy efficient light source which use 75% less  
20 energy than the conventional incandescent light bulbs utilized in nearly every home, with equivalent  
21 lumen (light) output, and last up to ten times longer. Household-to-household delivery of CFLs can be  
22 an effective way of achieving large amounts of electric savings and expanding public awareness of  
23 environmentally friendly technologies. Installation of CFLs causes immediate and lasting bill savings to  
24 customers. While CFLs have a proven track record for efficiency and long life, and have been in the  
25 marketplace for over 20 years, the newest generation of CFLs fit a greater variety of fixtures and lamps,  
26 provide better color rendition, and are brighter. This improved technology has, for the most part, not  
27 reached low income homes because of their higher initial cost and lack of awareness. SCE believes the

1 introduction of CFLs to new customer segments will not only help overcome these barriers in the low  
2 income community, but also enhances public awareness of new, “green” technologies and the beneficial  
3 impact these technologies have on the environment and energy bills.

4 SCE’s success in the delivery of low income energy efficiency and rate discount programs has in  
5 large part been due to its partnerships with CBOs and FBOs. To assist these organizations in reaching  
6 low income communities, SCE will expand upon its existing network of CBOs, FBOs and private  
7 contractors currently delivering energy efficiency services. SCE will also utilize the outreach of these  
8 organizations to increase penetration of its domestic rate for income-qualified customers, California  
9 Alternative Rates for Energy (CARE). Employing these additional organizations will secure a  
10 penetration rate for the CFL Program that will result in groundbreaking reductions in greenhouse gas  
11 emissions, increased bill savings to customers, and an increased number of households receiving the  
12 CARE discount.

13 In support of the Commission’s effort to encourage the utilities to develop innovative ways to  
14 educate customers on energy efficiency and reduce energy consumption, the CFL Program would use a  
15 broad network of CBOs to distribute CFLs to low income communities, along with educational  
16 information on other ways homeowners can save energy and money. The CFL Program will produce  
17 immediate bill savings for customers, reduce summer on-peak demand, and significantly reduce  
18 greenhouse gas emissions.

19 **B. The Desired Program Outcome**

20 SCE’s “Change A Light, Change The World,” CFL Program is a bold effort to aggressively  
21 implement immediate energy savings in households throughout the low income communities in SCE’s  
22 service territory. The CFL Program objectives include, but are not limited to, the following:

- 23 □ Reduce customer energy consumption and electric bills. CFLs use 75% less energy than  
24 typical incandescent light bulbs with equivalent lumen output. Customers can begin to  
25 realize savings on their electric bills immediately when installing CFLs and using energy  
26 conservation practices.

- 1           □     Combat greenhouse gas emissions and global warming by educating customers on the  
2                   benefits of changing to more efficient electrical appliances. Low income customers are  
3                   less likely to purchase and install new technologies that would reduce the amount of  
4                   electrical consumption in the home. This is largely due to the higher initial cost of these  
5                   technologies when compared to traditional technologies. Offering CFLs to customers at  
6                   no charge to them and accompanying this offer with an education campaign will expand  
7                   awareness of the use of new technologies and their role in reducing greenhouse gas  
8                   emissions.
- 9           □     Increase energy efficiency practices by providing educational information packets to  
10                   customers. Education is a critical component of this effort and the education packets will  
11                   provide tips on conserving energy that customers can immediately begin to practice.  
12                   Instructions on proper disposal of CFLs will also be included in the education materials  
13                   to ensure customers know how to dispose of spent CFLs.
- 14          □     Partner with Community, Local, and Faith-Based Organizations. Working with local  
15                   organizations is a proven approach to gaining community trust and support of energy  
16                   efficiency programs. CBOs and FBOs have built-in, existing networks, which have  
17                   gained the experience and trust of many local customers in the communities they operate.  
18                   In the past, CBOs and FBOs have used volunteer and paid community members to  
19                   canvass neighborhoods for a number of programs including the CARE Capitation  
20                   Program, a program designed to increase participation in SCE’s CARE discount. This  
21                   experience and trust allows SCE to improve access to customers in order to increase  
22                   awareness of energy efficiency programs, practices, and proper disposal procedures.  
23                   SCE will promote the safe recycling of CFLs through existing hazardous waste collection  
24                   programs and will explore the creation of alternative local collection sites where  
25                   customers can conveniently drop off old, expired CFLs for subsequent disposal at state-  
26                   approved hazardous waste collection sites.

- 1           □    Increase enrollment in SCE’s CARE rate discount program. SCE’s current CARE  
2           penetration rate is 76%. With SCE’s CFL Program, one million potentially eligible  
3           customers will be offered the opportunity to receive and install high-efficiency lighting in  
4           their homes. While a large majority of recipients will already be enrolled in CARE, this  
5           program does provide a mechanism to reach customers who are not currently receiving  
6           the CARE discount and may therefore help increase enrollment in SCE’s CARE  
7           program.
- 8           □    Partner with the Energy Department and the EPA to significantly increase awareness of  
9           and participation in their ENERGY STAR® “Change A Light, Change The World”  
10          campaign. SCE’s CFL Program will set the standard in California for national  
11          participation in the ENERGY STAR® “Change A Light, Change The World” campaign.  
12          Through SCE’s CFL Program, California will set the standard for national participation  
13          in the ENERGY STAR® “Change A Light, Change The World” campaign. Customers  
14          will be asked to sign a pledge agreement wherein they promise to immediately install the  
15          CFLs. They will also receive information on ENERGY STAR® products and programs.  
16          SCE will contribute to the campaign by:
  - 17           o       Saving California an estimated 280,554 MWh enough to power more than 40,000  
18           homes;
  - 19           o       Reducing greenhouse gas emissions by as much as 156,700 tons, equivalent to taking  
20           nearly 30,000 cars off the road; and
  - 21           o       Reducing power demand by about 23.7 MW.

### 22   **C.   Marketing And Outreach**

23           SCE will partner with CBOs in a household-to-household outreach in neighborhoods with  
24   significant low income populations that have been selected according to demographic research and  
25   census targeting. Through a focused marketing effort, SCE will target those low income communities  
26   that can best benefit from the CFL Program. Nevertheless, SCE recognizes that some homes will  
27   choose not to participate in the CFL Program.

1 SCE will use small area demographic estimates - consistent with those used by the investor-  
2 owned utilities and the Commission to monitor and analyze LIEE and CARE program eligibility and  
3 penetration - to identify areas with large concentrations of low income households. For purposes of  
4 outreaching the CFL Program, SCE will use specific targeting techniques, including the “ZIP7” (or ZIP  
5 code plus sector) geographic unit as the basis for canvassing households for CFL delivery.<sup>7</sup>

6 SCE will compensate participating organizations with a fixed payment of \$10 for each home  
7 reached, which includes:

- 8 • In-person delivery of CFLs;
- 9 • Providing customer with energy efficiency fact sheets and CARE applications, along with  
10 information on the proper disposal of used CFLs; and
- 11 • Providing and collecting customer pledge agreements in which customers pledge that  
12 they will immediately install the CFLs.

13 SCE will employ a household-to-household canvassing approach to target low income  
14 neighborhoods and will partner with an expanded network of CBOs and FBOs for the delivery of CFLs  
15 to approximately one million homes.

16 The CFL Program will coordinate different marketing tactics to educate customers that by taking  
17 small steps toward becoming energy efficient, they can make a difference in their energy bill and help  
18 save the environment. Moreover, these tactics will assist service providers by making customers aware  
19 of the program, creating a sense of awareness and excitement within targeted neighborhoods, and  
20 validating that service providers are making a legitimate offer, supported by SCE and the Commission.  
21 Awareness campaigns will leverage opportunities with local retailers, media advertising, and direct  
22 marketing to achieve the desired levels of customer participation. Additionally, information on other  
23 low income programs, including CARE, will be offered during house-to-house distribution. Marketing  
24 activities may include, but are not limited to:

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25 <sup>7</sup> A ZIP7 is a small sector within a ZIP code. ZIP7 or ZIP+2 is defined as the residence ZIP code, plus the first two digits of the United States Postal Service-assigned suffix. These two digits are known as the postal sector.

- 1           □   Newspaper Print Ads in local community papers and in languages spoken within the  
2                   communities, announcing the CFL Program and providing specific dates when SCE  
3                   representatives will be in their area.
  
- 4
- 5           □   Press releases and media outreach to inform customers about the CFL Program and when  
6                   SCE delivery partners will be in their area.
  
- 7
- 8           □   Fact sheets developed in multiple languages and with large print materials for visually-  
9                   impaired customers to further educate customers about energy efficiency, the impact that  
10                  changing out incandescent light bulbs can have on the environment, and how actions  
11                  similar to this can help improve the environment, along with information about proper  
12                  disposal of spent CFLs.
  
- 13
- 14          □   Door hangers that can be left at customers' homes that will include information on the  
15                  program, agency and canvasser information, as well as SCE/contractor contact  
16                  information.
  
- 17
- 18          □   Materials, including flyers, announcing SCE's schedule to visit neighborhoods, window  
19                  stickers and other promotional materials that can be distributed to local/participating  
20                  retail outlets, clinics, community centers, libraries, hospitals, etc., where local residents  
21                  congregate.
  
- 22
- 23          □   Information on SCE Web site announcing the CFL Program on key residential program  
24                  pages, including low income program pages that will include information included on the  
25                  fact sheet, as well as a downloadable PDF of the fact sheet.
  
- 26

- 1           □     Links on SCE’s Website to the ENERGY STAR® “Change A Light, Change The World”  
2                    campaign.
  
- 4           □     SCE may consider a partnership with local radio and media outlets to provide ENERGY  
5                    STAR® rated appliances to a select number of participants who have displayed their  
6                    SCE-provided ENERGY STAR® window decal. Any such promotional event would  
7                    comply with all applicable local, state and federal rules, laws and regulations.

8     **D.     Program Budget**

9           SCE is herein requesting \$22.000 million to implement the CFL Program. SCE has included a  
10           detailed program budget in Appendix A.

11           The budget will support aggressive outreach and marketing strategies recommended for success  
12           in delivering this new program and will result in immediate energy savings, bill savings, and greenhouse  
13           gas reductions. Actual costs for the CFLs will not be known until responses to a competitive solicitation  
14           have been received from suppliers. SCE needs flexibility to adjust the proposed budget allocations to  
15           ensure that the CFL Program design can be modified as necessary to ensure successful implementation.  
16           To this end, SCE requests that it be permitted to shift funding among the various budget categories (see,  
17           Appendix A, Table 1) of the CFL Program. SCE also requests that any remaining unspent funds be  
18           carried into the existing, or future, LIEE program budget for the installation of its particular measures.

19     **E.     The CFL Program’s Achievements Will Be Counted Towards The Commission’s Adopted**  
20     **Energy Efficiency Goals**

21           Consistent with Commission direction,<sup>8</sup> SCE plans to record all energy efficiency results  
22           associated with the CFL Program towards the achievement of the Commission-adopted energy  
23           efficiency goals.<sup>9</sup> In Decision 04-09-060, the Commission explicitly directed that all low income energy

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<sup>8</sup> Decision 04-09-060, Finding of Fact Paragraph No. 13, pp. 46-7.

<sup>9</sup> *Id.*, Ordering Paragraph No. 2, p. 51.

1 efficiency results be counted toward the achievement of the energy efficiency goals in the year in which  
2 those energy savings and demand reductions are realized (i.e., installed).<sup>10</sup>

3 The CFL Program and SCE's desire to vigorously implement such a bold strategy are a direct  
4 result of the Commission's vision to encourage investor-owned utilities to aggressively pursue energy  
5 efficiency as the first choice for meeting California's energy needs and to make energy, an essential  
6 commodity, affordable to disadvantaged customers.<sup>11</sup>

7 **F. Immediate Implementation**

8 SCE has set an ambitious goal of contacting 926,000 customers through the CFL Program by  
9 December 31, 2008. To accomplish this very aggressive schedule, SCE is seeking expedited treatment  
10 of this Application. Concurrent with the filing of this Application, SCE is submitting an advice letter to  
11 the Commission requesting authority to record costs in a memorandum account until SCE receives  
12 Commission approval of this Application. These costs include, but are not limited to, program design  
13 and planning, competitive solicitations, contract development and execution, release of purchase  
14 agreements, bulk purchase of CFLs, CBO and FBO training, measurement and evaluation planning,  
15 household-to-household outreach and delivery, and other activities that will enable SCE to quickly and  
16 efficiently implement the CFL Program.

17 **III.**

18 **PROPOSED MEASUREMENT AND EVALUATION PLAN**

19  
20 **A. Measurement and Evaluation Plan**

21 SCE anticipates the need for estimated two-year total funding of \$160,000 for the following  
22 Measurement & Evaluation (M&E) work related to the CFL Program.

23 Since this is a new program in SCE's energy efficiency program portfolio, evaluation of the CFL  
24 Program will include both Process Evaluation and Impact Evaluation to determine the effectiveness of

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<sup>10</sup> *Id.*, Finding of Fact Paragraph No. 14, p. 47.

<sup>11</sup> Energy Action Plan II, dated September 21, 2005, pp. 1-2.



1 the program in the actual accomplishment of customer savings for its target population. In planning for  
2 measurement and evaluation activities for the CFL Program, it is important to recognize that a portion of  
3 the households in this program (about 74,000) will be served through the existing LIEE program and  
4 may follow the same cycle of evaluation as the LIEE program. However, given the different delivery  
5 approach of the CFL Program, both parts of the program should be evaluated as a single program to  
6 better evaluate the successes and shortcomings of the program strategy and the program's achieved  
7 energy savings.

8 A process evaluation will address the effectiveness and efficiency of the program delivery  
9 strategy as an effective method for delivering a large volume of CFLs to low income neighborhoods.  
10 The success of the program will rely on early feedback from service providers and customers on  
11 program operation so that any needed modifications or corrective actions can be quickly undertaken by  
12 program staff. Process evaluation activities will be designed to provide such feedback. Since SCE will  
13 be using various providers to deliver the CFL Program, the process evaluation will gather data on  
14 individual provider performance, the training of the program canvassers, the household-to-household  
15 delivery operation, and customer satisfaction with the CBO and FBO personnel, educational materials  
16 and overall program. These issues are of importance for both process and quality control aspects of the  
17 program. SCE anticipates ride-alongs, customer follow-up surveys, and interviews with providers and  
18 SCE program staff. SCE is allocating \$45,000 for process evaluation data collection, analysis, and  
19 reporting activities.

20 An impact evaluation for the CFL Program will need to address several key issues regarding  
21 CFL savings for the program. The energy savings achieved by the program on a per unit basis depend  
22 on the rate of installation, the extent to which the bulbs are used, and the reduction in wattage realized  
23 by the installation of the CFL.

24 Through several types of data collection, the impact evaluation of the program will  
25 verify the following CFL savings parameters:

- 26 1. Installed bulbs by bulb wattage: location (including outdoors), wattage by type of  
27 replaced bulb, and approximate installation date.

2. Uninstalled bulbs by bulb wattage: anticipated location, wattage by type of bulb to be replaced, and anticipated installation date (if any).
3. Hours of use by wattage.

Other data needed include program participants' prior experience with CFL bulbs, customer demographics, and housing information. The following types of data collection approaches and sample sizes are anticipated to support an effective impact evaluation:

1. Quality Control Customer Feedback Postcards And Phone Surveys

The program staff will be performing quality assurance through follow-up surveys of 5,000 total addresses serviced by the program and random phone calls to confirm delivery of the program to the customers. Besides quality control issues, this data collection can also support some measurement data needs for the impact evaluation.

2. Detailed Telephone Survey

A more detailed telephone survey will augment the postcard survey and will also collect process evaluation data. It will delve more deeply into critical lighting program parameters necessary to support the impact evaluation. This survey sample is expected to be stratified to obtain geographical representation as well as the range of small area income levels. A sample size of 1,000 is anticipated. If there is interest in specifically addressing the LIEE portion of the program (the 74,000 households) the sample size needs to be increased to 1,500, including another 500 LIEE households.

3. On-Site Surveys

For a small subset of the 1,000 households in the achieved sample, an onsite survey of 100 households will be critical in establishing reliability estimates for the lighting parameters developed from the self-reported data in the telephone surveys.

SCE is allocating \$90,000 for impact evaluation activities.

Finally, SCE is allocating \$25,000 for the M&E staff time and expenses of managing the process and impact evaluation studies, gathering the necessary data for them, responding to M&E-related regulatory requests, and providing ad hoc analyses that the program managers need for refining program

1 design, targeting, and operations. These activities result in a total estimated SCE M&E cost of  
2 \$160,000.

#### 3 IV.

### 4 PROPOSED RATEMAKING TREATMENT FOR SCE'S "CHANGE A LIGHT, CHANGE THE 5 WORLD," CFL PROGRAM

#### 6 A. Proposed CFL Program

7 SCE proposes an increase of \$22.000 million in LIEE funding for the CFL Program. The CFL  
8 Program revenue requirement is proposed to be in addition to the 2007-2008 authorized LIEE revenue  
9 requirement established in Decision 06-12-038. Specifically, SCE is proposing that \$11.000 million in  
10 CFL Program revenue requirement be authorized for 2007 and the remaining \$11.000 million be  
11 authorized for 2008.

#### 12 B. Rate Recovery Proposal

13 SCE's current ratemaking associated with LIEE includes: 1) the recovery of the Commission-  
14 authorized LIEE revenue requirement through the operation of the Public Purpose Programs Adjustment  
15 Mechanism (PPPAM), and 2) the comparison of the authorized LIEE revenue requirements with  
16 actually-incurred LIEE expenses in the Low Income Energy Efficiency Programs Adjustment  
17 Mechanism (LIEEPAM).

18 SCE proposes to recover the authorized CFL Program expenses through its existing non-  
19 bypassable Public Purpose Programs Charge (PPPC), which applies to all of SCE's retail customers.<sup>12</sup>  
20 Authorized revenue requirement associated with the 2007-2008 CFL Program will be combined with the  
21 currently authorized 2007-2008 LIEE revenue requirement and will be recorded in the PPPAM. To  
22 ensure that SCE recovers neither more nor less than its authorized 2007-2008 LIEE revenue requirement  
23 (including the authorized 2007-2008 CFL Program revenue requirement), SCE will record a monthly  
24 debit entry equal to one-twelfth of the annual authorized revenue requirement in the CPUC Public  
25 Purpose Programs subaccount of the PPPAM.

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<sup>12</sup> CARE customers pay a lower PPPC than other residential customers as they are exempt from paying the CARE surcharge and other low income revenue requirements.

1 Through the operation of the LIEEPAM, SCE compares the authorized LIEE revenue  
2 requirement with actual LIEE expenses. Authorized CFL Program revenue requirement and expenses  
3 will be recorded in the LIEEPAM. The balance recorded in the LIEEPAM is carried over from one year  
4 to the next.

5 In order to reduce the number of rate changes, the Commission has established the annual  
6 Energy Resource Recovery Account (ERRA) Forecast proceeding as the proper place to consolidate all  
7 Commission-authorized revenue requirement changes into one rate level change. In SCE's annual  
8 August 1st ERRA Forecast applications, SCE sets forth its consolidated revenue requirement for the  
9 subsequent year. SCE proposes to include the CFL Program revenue requirement approved in this  
10 proceeding in PPC rate levels on or after January 1, 2008 as part of its 2008 ERRA.<sup>13</sup> Forecast  
11 proceeding revenue requirement and rate consolidation. This rate consolidation will include the true-up  
12 of any undercollection that may accrue due to the time lag between implementing the CFL Program  
13 revenue requirement and actually reflecting the CFL Program revenue requirement in rate levels.

14 Concurrently with the filing of this application, SCE is submitting an advice letter requesting  
15 Commission authorization to establish the Compact Fluorescent Light Program Memorandum Account  
16 (CFLPMA). If approved, SCE will record in the CFLPMA the CFL expenses incurred prior to the  
17 approval of this application. Upon a final Commission decision in this proceeding authorizing SCE to  
18 implement the CFL Program and recovery of the increased LIEE revenue requirement, SCE will transfer  
19 the amount recorded in the CFLPMA to the LIEEPAM.

## 20 V.

### 21 CONCLUSION

22 SCE requests approval of its "Change A Light, Change The World," CFL Program budget, plan  
23 and ratemaking. Specifically, SCE requests:

- 24 ♦ Expedited treatment and approval of \$22.000 million for the "Change A Light, Change The  
25 World," CFL Program with authorization to spend funds through December 31, 2008;

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<sup>13</sup> SCE will add associated Franchise Fees and Uncollectibles to the CFL Program costs.

- 1 ♦ Increased funding flexibility to reallocate funding among budget categories as required to meet
- 2 goals and objectives and to carry any remaining funding into the existing, or future, LIEE
- 3 program budget for the installation of its particular measures; and
- 4 ♦ Approval of the proposed ratemaking treatment.
- 5

**Appendix A**

**SCE's "Change A Light, Change The World," CFL Program Budget**

## Appendix A – SCE’s “Change A Light, Change The World,” CFL Program Budget

Cost Category	Proposed Budget Amount <sup>[1]</sup>
Energy Efficiency	
- Gas Appliances	\$ -
- Electric Appliances (All CFLs) <sup>[2]</sup>	\$ 20,668,000
- Weatherization	\$ -
- Outreach and Assessment	\$ -
- In Home Energy Education	\$ -
- Education Workshops	\$ -
- Pilot	\$ -
- Cool Centers	\$ -
<b>Energy Efficiency TOTAL</b>	<b>\$ 20,668,000</b>
Training	\$ 25,000
Inspections	\$ -
Marketing	\$ 500,000
M&E Studies	\$ 160,000
Regulatory Compliance	\$ 40,000
General Administration	\$ 607,000
CPUC Energy Division	\$ -
<b>TOTAL PROGRAM COSTS</b>	<b>\$ 22,000,000</b>

<sup>[1]</sup> The budget will fund the program through December 31, 2008.

<sup>[2]</sup> Includes the bulk purchase and delivery of CFLs to customers.

**Appendix B**

**SCE's "Change A Light, Change The World," CFL Program Implementation Plan**



# SCE’s “Change A Light, Change The World,” CFL Program

<b>1. Projected Program Budget</b>	<b>\$22,000,000</b>
<b>2. Projected Program Impacts (Net)</b>	
MWh, Annualized	280,554
MW (Summer Peak)	23.7

### 3. Program Descriptors

Market Sector: Targeted Low Income Neighborhoods

SCE will use demographic information, consistent with estimates used by investor-owned utilities and the California Public Utilities Commission (Commission) in the analysis and reporting of low income program eligibility and penetration, to identify areas with high concentrations of low income households. For purposes of outreaching the project described herein, SCE will use ZIP7<sup>14</sup> areas as the geographic unit to canvass households for delivery of CFLs. The median number of households in a ZIP7 within SCE service territory is 215. By targeting at the ZIP7 level, SCE will be able to reach relatively homogeneous neighborhoods of households that predominantly meet the income and household size definitions for low income program eligibility, without assuming a level of precision that goes beyond the limitation of Census and Census-derived data sources.

### 4. Program Statement

Recently, the Commission initiated a public dialogue about the overarching purpose and goals of the Low Income Energy Efficiency (LIEE) Program, focusing on the program’s contribution to California’s future resource requirements, its ability to adequately meet the needs of targeted customers, and the appropriate period of time and amount of investment to ensure that all eligible households receive some level of energy efficiency assistance. Concurrently with this dialogue, the Commission has been looking to California’s investor-owned utilities to develop and implement new, innovative ways to deliver energy efficiency, especially in light of the importance placed on reducing greenhouse gases and improving the environment.

In support of the Commission’s leadership in this area, SCE has designed a program that will substantially increase the number of low income households receiving efficiency services and information, reduce energy demand and decrease greenhouse gas emissions. Simply stated, SCE’s proposal is to partner with the Department of Energy and the Environmental Protection Agency (EPA) to promote their ENERGY STAR® campaign by implementing SCE’s “Change A Light, Change The World,” CFL Program (the CFL Program), whereby one million households in predominantly low income neighborhoods

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<sup>14</sup> A ZIP7 is a small sector within a ZIP code. ZIP7 or ZIP+2 is defined as the residence ZIP code, plus the first two digits of the United States Postal Service-assigned suffix. These two digits are known as the postal sector.

will be asked to remove six incandescent bulbs and replace them with compact fluorescent lamps (CFLs). The program will operate over an 18-month period from July 1, 2007 through December 31, 2008. It is SCE's hope that the CFL program will significantly increase the number of signed ENERGY STAR® pledges which will result in energy savings and greenhouse gas reductions.

SCE will employ a household-to-household approach within targeted low income neighborhoods and offer residents a variety of six energy efficient CFLs. SCE will partner with community-based organizations (CBOs) and faith-based organizations (FBOs) that will employ a well-trained, established network of canvassers. To control costs, SCE will buy ENERGY STAR® rated CFLs in bulk at a volume discount. Specifically, SCE will bulk purchase CFLs in packages of six CFLs per pack. The packages will contain a variety of CFLs for various applications throughout the home.

As part of the CFL Program, the CFL variety packs will be offered to 926,000 homes in targeted low income neighborhoods. In combination with the existing 2007-08 Low Income Energy Efficiency (LIEE) program, SCE expects to reach one million low income households with this CFL offer, by the end of 2008. To optimize the delivery of the proposed CFL Program and SCE's current LIEE program, SCE will supplement SCE's existing LIEE CFL four-bulb offering with the purchase of an additional two CFLs to offer the same six CFL package to each of the proposed 74,000 LIEE homes currently targeted under SCE's LIEE program in 2007 and 2008.

## **5. Program Rationale**

CFLs have been an integral part of SCE's LIEE program for over 20 years. However, the market penetration of these devices has been limited by the number of homes the program could serve over this period, when delivered in conjunction with other, more expensive efficiency hardware. The proposed CFL Program will substantially increase the adoption of CFL technology in a dramatically short time period, by offering this highly cost-effective lighting technology to one million customers in predominantly low income communities. These customers could greatly benefit from the bill savings associated with CFL use, but have limited resources to obtain such devices and may not be aware of new environmentally-friendly technologies. SCE hopes that such an aggressive and ambitious program could also capture the imagination of other customers throughout SCE's territory, resulting in increased sales of ENERGY STAR® CFLs and other products in areas not targeted by this initiative.

Compact fluorescent lamps are a proven energy-efficient light source using 75% less energy than conventional incandescent light bulbs with equivalent lumen output and lasting up to ten times longer. A person-to-person delivery strategy, as proposed here, can be an effective way of maximizing the use of CFL technology in low income communities and achieving large amounts of electric energy savings. While CFLs have a proven track record for efficiency and long life, and have been in the marketplace for over 20 years, the newest generation of CFLs fit a greater variety of fixtures and lamps, provide better color rendition, and are brighter. This improved technology has, for the most part, not reached low income homes because of their higher initial cost and lack of awareness. SCE believes the introduction of CFLs to new customer segments will not only help overcome these barriers in the low income community, but will also enhance public awareness of new,

“green” technologies and the beneficial impact these technologies have on the environment and energy bills.

SCE will use program funds to bulk purchase CFLs. SCE will offer three different wattages of CFLs to 926,000 homes in targeted low income neighborhoods and supplement existing LIEE funds for the purchase of two additional CFLs to offer six CFLs to each of the proposed 74,000 LIEE customer homes serviced under SCE’s LIEE program in 2007 and 2008. By combining homes served through the existing LIEE program with the CFL Program, SCE will reach one million low income customers during the proposed program period. Homes that already have some CFLs installed in their homes will also receive energy savings from participation in this program. Homes on average have 35 sockets capable of receiving CFLs.<sup>15</sup> Installing an additional six CFL will further increase bill savings, reduce greenhouse gas emissions and lower energy consumption.

SCE’s success in the delivery of low income energy efficiency and rate discount programs has in large part been due to partnerships with CBOs and FBOs. To assist these organizations in reaching low income communities, SCE will expand upon its existing network of CBOs, FBOs and private contractors currently delivering energy efficiency services. Employing additional delivery resources will secure a penetration rate for the CFL Program that will result in groundbreaking reductions in greenhouse gas emissions, increased bill savings to customers and an increased number of households receiving the CARE discount.

SCE will use demographic information, consistent with estimates used by investor-owned utilities and Commission in the analysis and reporting of low income program eligibility and penetration, to identify areas with high concentrations of low income households. For purposes of outreaching the project, SCE will use ZIP7 areas as the geographic unit to canvass households for delivery of CFLs. The median number of households in a ZIP7 within SCE service territory is 215. With the use of ZIP7 and a unique identification number assigned to each canvasser, SCE will be able to effectively oversee the delivery of CFLs and respond to program-related issues, even in isolated situations.

## 6. Program Outcomes

The desired outcomes of the CFL Program are:

- ♦ **Reduce customer energy consumption and electric bills** - CFLs use 75% less energy than typical incandescent light bulbs with equivalent lumen output. Customers can begin to realize savings on their electric bills immediately when installing CFLs and using energy conservation practices.
- ♦ **Combat greenhouse gas emissions and global warming by educating customers on the benefits of changing to more efficient electrical appliances** - Low income communities are less likely to purchase and install new technologies that would reduce the amount of electrical consumption in the home. This is largely due to the higher initial cost of these technologies when compared to traditional technologies. Also, low income households frequently are renters and may be less likely to purchase energy efficient equipment with longer term economic benefit. Offering CFLs to customers and accompanying this offering with an education campaign will expand awareness of the use of new technologies and their role in reducing greenhouse gas emissions.

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<sup>15</sup> 2005 California Statewide Residential Lighting and Appliance Efficiency Saturation Study, page 52.

- ♦ **Increase energy efficiency practices by providing educational information packets to customers** – Education is a critical component of this effort and the education packets will provide tips on conserving energy that customers can immediately begin to practice. Instructions on proper disposal of CFLs will also be included in the education materials to ensure customers know how to dispose of spent CFLs.
- ♦ **Partner with Community, Local, and Faith-Based Organizations** – Working with local organizations is a proven approach to gaining community trust and support of energy efficiency programs. CBOs and FBOs have built-in, existing networks, which have gained the experience and trust of many local customers in the communities they operate. In the past, CBOs and FBOs have used volunteer and paid community members to canvass neighborhoods for a number of programs including the CARE Capitation Program, a program designed to increase participation in SCE’s CARE discount. This experience and trust allows SCE to improve access to customers in order to increase awareness of energy efficiency programs, practices, and proper disposal procedures. SCE will promote the safe recycling of CFLs through existing hazardous waste collection programs and will explore the creation of alternative local collection sites where customers can conveniently drop off old, expired CFLs for subsequent disposal at state-approved hazardous waste collection sites.
- ♦ **Increase enrollment in SCE’s CARE rate discount program** - SCE’s current CARE penetration rate is 76%. With SCE’s CFL Program, one million potentially eligible customers will be offered the opportunity to receive and install high-efficiency lighting in their homes. While a large majority of recipients will already be enrolled in CARE, this program does provide a mechanism to reach customers who are not currently receiving the CARE discount and may therefore help increase enrollment in SCE’s CARE program.
- ♦ **Partner with the Department of Energy and the Environmental Protection Agency (EPA) to significantly increase awareness of, and participation in, their ENERGY STAR® “Change A Light, Change The World” campaign** – SCE’s CFL Program will set the standard in California for national participation in the ENERGY STAR® “Change A Light, Change The World” campaign. Customers will be asked to sign a pledge agreement wherein they promise to immediately install the CFLs. They will also receive information on ENERGY STAR® products and programs. SCE will contribute to the campaign by:
  - Saving California an estimated 280,554 MWh,<sup>16</sup> enough to power more than 40,000 homes<sup>17</sup>
  - Reducing greenhouse gas emissions by as much as 156,700 tons,<sup>18</sup> equivalent to taking nearly 30,000 cars off the road<sup>19</sup>

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<sup>16</sup> In Service Factor of .9 and Load Shape Factor of 7.5% was determined according to 2006/08 Residential Upstream Lighting Program E3 Calculator.

<sup>17</sup> Source - U.S Dept of Energy, Energy Information Administration, Form EIA-861. An average home served by SCE uses approximately 7,000 KWh of electricity per year.

<sup>18</sup> Source - 2006/08 Energy Efficiency Program E3 Calculator.

- Reducing power demand by about 23.7 MW<sup>20</sup>

## 7. Program Strategy

SCE plans to issue a Request for Proposal to bulk purchase up to six million CFLs to be used in this initiative. Bidders will be asked to provide projected costs for the purchase of 13-watt, 18-watt and 23-watt CFLs to replace 60 watt, 75 watt and 100 watt incandescent light bulbs, respectively. SCE plans to require selected suppliers(s) to place a unique mark on each CFL to link the CFL to the CFL Program for future measurement and evaluation studies.

SCE will work with existing LIEE program contractors to identify areas they will serve. SCE will then provide these service providers with “walking-lists” of customers, sorted by street address within targeted neighborhoods. Due to the extremely ambitious nature of this effort, SCE recognizes that it must add additional local service entities, such as FBOs, private contractors with experience working with low income residents, and other non-profits and civic organizations, to its existing contractor list. SCE will work with internal departments and community leaders to augment such list. Employing these additional groups will create a robust service network that will help guarantee success. SCE has chosen to employ CBOs and FBOs because they have already developed a trust with the targeted communities which will further ensure installation of the CFLs.

Oversight and management of contractor activity will be conducted through a number of methods. Along with on-going training, identification badges and feedback from the customer, SCE will assign personnel to specific geographic areas to provide program support and management. SCE’s program staff will assure quality control through ongoing customer feedback that will be obtained through customer initiated contacts, random phone calls to customers, responses to postcards, and phone surveys.

A train-the-trainer curriculum will be created to train agency representatives and allow them to train canvassing staff. In addition, SCE representatives will conduct regular follow-up training sessions on an as-needed basis at the contractors’ sites.

Once training is completed, SCE will issue each canvassing staff member an identification badge, which will include the individual’s picture, name, badge number, effective dates, contact information, and SCE contact information. The badge will be worn during canvassing activities.

Using small area demographics estimates to identify areas with large concentrations of low income customers, SCE will develop and provide customer lists (consisting of addresses only) to each agency. Customer names will not be included. SCE will use ZIP7 as the geographic unit for the delivery of CFLs and education packets. Within each ZIP7, SCE will provide a sorted list of street addresses for canvassers, making use of postal carrier route codes where this information can increase the efficiency of canvassing. A bar coded label will be included for each address on the lists. The canvasser will place the

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Continued from the previous page

<sup>19</sup> Source - D-05-09-043. The Calculation for this statistic is  $x \text{ metric ton CO}_2 / (.014418 \text{ metric tons CO}_2/\text{day/vehicle}) / 365 \text{ days per year} = \# \text{ of vehicles taken off the roads each year due to savings that year.}$

<sup>20</sup> In Service Factor of 1.0 and Load Shape Factor of 7.5% was determined according to 2006/08 Residential Upstream Lighting Program E3 Calculator.

corresponding label on a customer pledge form that the agency will submit to SCE for payment.

Canvassing staff will utilize the SCE lists to distribute six uniquely identified CFLs to customer homes, along with a packet of educational information on other ways customers can save energy and money. The canvasser will summarize the education packet, highlighting such items as bill savings, greenhouse gas reduction benefits, energy-efficiency practices, ideal CFL installation locations, and safe recycling of CFLs. The canvassing staff will promote the safe recycling of CFLs through existing hazardous waste collection programs. In addition, SCE will explore the creation of alternative local collection sites where customers can conveniently drop off old, expired CFLs for subsequent disposal at state-approved hazardous waste collection sites.

Customers will sign a pledge form indicating they will do their part to save energy and help reduce the risks of global climate change by immediately replacing six incandescent bulbs with the six ENERGY STAR® CFLs provided. The signed pledge also will serve to acknowledge their receipt of services under the program. In addition, participating customers will be encouraged to display a SCE-provided ENERGY STAR® window decal that states “I Participated in SCE’s “Change A Light, Change The World,” CFL Program”.

SCE may consider a partnership with local radio and media outlets to provide ENERGY STAR® rated appliances to a select number of participants who have displayed their SCE-provided ENERGY STAR® window decal. Any such promotional event would comply with all applicable local, state and federal rules, laws and regulations.

SCE will provide the CBO canvassers with CARE Program applications. These applications will include a unique source code to identify the CFL Program and participating agency. Canvassers will be encouraged to help customers fill out the application and submit it to SCE for processing. Customers who are unable to complete the CARE application may mail in the application later using the postage-paid form.

If an adult member of the household is not available at the time the canvasser visits the home, the canvasser will be required to leave a special program door hanger. The door hanger will include information on the program, agency and canvasser information, as well as SCE/contractor contact information. It will allow a missed customer to ask for his/her CFLs by contacting the canvassing agency for delivery or by completing a postage-paid form that indicates interest in the program. The form will require the customer to provide a name, address, and a signature under a pledge statement acknowledging agreement to do their part to save energy and help reduce the risks of global climate change by immediately replacing six incandescent bulbs with the six ENERGY STAR® CFLs, once received.

The reverse side of this postage-paid form will include an SCE mailing address so it can be submitted to SCE as a request for six CFLs. The customer will keep the section of the door hanger that includes the information of the CFL Program, the agency and canvasser that visited the neighborhood, as well as SCE contact information. Upon receipt, SCE will confirm participation and eligibility. To identify eligibility, SCE will flag customer accounts targeted by the CFL Program in the Customer Integrated Application (CIA) database. If eligible, SCE staff will either mail a “Change A Light, Change The World” package to the customer or a coupon redeemable for six CFLs at a participating retailer.

SCE will direct purchase orders to participating agencies and compensate them with a fixed \$10 payment for each household that receives educational materials and a CARE application, accepts a six-CFL pack, and signs a pledge form to install the CFLs in their home.

Agencies will be asked to submit weekly invoices to SCE for services rendered. The summary invoice will include homes serviced and associated costs. In addition, each invoice will include the back-up documentation for each home serviced. Documentation will include signed pledge forms. Agencies will send the invoices to SCE's Program Support Organization (PSO) for processing.

PSO will input participating homes into the CIA database by scanning the bar code or inputting the address on the signed customer pledge form. CIA will validate each entry for previous participation and account validity. Account validity consists of a home serviced with an active SCE account (individually- or master-metered). Previous participation is defined as a targeted home having already received CFLs as part of this initiative. Once this validation is completed, service provider invoices will be paid.

SCE will randomly select participating homes/customers for a follow-up interview. The program evaluators will select a pool of customers from each participating agency. Customers will be interviewed via telephone or mail. Interview questions will include, but will not be limited to, delivery of CFLs, installation instructions, and educational material. SCE will use this information as a management control tool to monitor the service delivery process and will receive customer feedback that can be used to better manage the program and make adjustments where appropriate.

SCE's Energy Efficiency Customer Communication Organization (EECCO) will be provided with material and information to respond to any customer inquiries about the program, such as safety, energy-efficiency practices, ideal CFL installation locations, safe recycling of CFLs, and greenhouse gas reduction. In addition, the EECCO will be able to fulfill customer requests for a CFL Program package by inputting the request into the CIA database and then mailing a package to the customer. A third-party vendor may also be used to fulfill these requests. In addition, the EECCO will offer additional energy-efficiency services for customers meeting eligibility requirements.

## **8. Program Objectives**

SCE plans to increase awareness and participation in the national ENERGY STAR® "Change A Light, Change The World" program by offering six million CFLs to one million homes in predominantly low income neighborhoods throughout its service territory utilizing CBOs and FBOs during the period of July 1, 2007 through December 31, 2008. SCE will reach 74,000 of these customers through the existing LIEE program.

The delivery of CFLs will be handled through SCE's existing network of LIEE service providers, augmented with additional CBOs and FBOs who have experience in the delivery of services to the targeted population. SCE will use ZIP7 as the geographic unit for the delivery of CFLs and education packets. Within ZIP7s, SCE will work to assist in efficient contractor/canvasser household-to-household routing, by sorting street addresses properly and making use of postal carrier route codes where this is beneficial. Contractors will deliver the CFLs, education packets, and window decals; secure signed customer pledges; offer the opportunity to enroll in the CARE program; and leave program information in the form of door hangers when no one is home.

The calculated saving of this project is as follows:

- ◆ 280,554 MWh energy savings
- ◆ 23.7 MW demand reduction
- ◆ 156,700 tons greenhouse gas reductions

## **9. Program Schedule**

The CFL Program is scheduled for an implementation date of July 1, 2007 and will run until completed or through December 31, 2008. SCE proposes the following implementation schedule:

- ◆ Complete regulatory filings – May 10, 2007
- ◆ Receive Advice Letter (AL) Approval – May 30, 2007
- ◆ Issue CFL Request for Proposal – May 31, 2007
- ◆ Begin CBO Contract negotiations – May 31, 2007
- ◆ Bid proposals received – June 15, 2007
- ◆ Begin contractor training – June 18, 2007
- ◆ Review and select successful bidder(s) – June 22, 2007
- ◆ Issue CFL supplier and CBO Purchase Orders– June 29, 2007
- ◆ Implement Program – July 1, 2007

## **10. Customer Description**

SCE will use demographic information to identify discrete areas in SCE's service area with significant low income populations through the use of ZIP7 (ZIP code plus postal sector) as the geographic unit to create canvassing lists of households to receive CFLs. Customers residing in identified communities will be deemed qualified to participate in SCE's CFL Program.

As part of the CFL Program, the CFL variety packs will be offered to 926,000 homes in targeted low income neighborhoods. An additional 74,000 homes will receive CFLs through the existing 2007-08 LIEE program, bringing the total number of potential customer participants to one million. SCE proposes to supplement its existing LIEE CFL four bulb offering with two additional CFLs to offer the same six CFL package to each of the proposed 74,000 LIEE homes currently targeted under SCE's LIEE program in 2007 and 2008. Along with the CFLs, customers will also receive an education packet, a pledge form that they must sign agreeing to immediately install the CFLs, a window decal, and a CARE application. CARE applications will contain a source code identifying both the program and the agency delivering service under the program.

Customer information will be entered into SCE's CIA database. Database information will be used to facilitate vendor payments, document participation, provide reports, identify trends for possible implementation refinements, and assist in program evaluation.

## **11. Energy Measures and Program Activities**

### **11.1. Measures Information**

SCE proposes to distribute six ENERGY STAR-rated CFLs to each eligible customer. The wattages of these CFLs are:

- ◆ Two 13 watt CFLs, 800 to 1,099 Lumens, replacing 60 watt incandescent bulb
- ◆ Two 18 watt CFLs, 1,100 to 1,399 Lumens, replacing 75 watt incandescent bulb
- ◆ Two 23 watt CFLs, 1,600 to 1,999 Lumens, replacing 100 watt incandescent bulb



These CFLs are feasible for both indoor and outdoor lighting. Based on the historical data from SCE's LIEE program, 15% of 13 watt CFLs were used for outdoor lighting.

### 11.2. Energy Savings and Demand Reduction Level Data

The calculated kWh and kW per unit are based on the 2005 DEER Update Study, 12/2005.

#### CFL Program

DEER Measure ID	Measure	Gross Annual kWh per unit <sup>[1]</sup>	Gross Annual kW per unit <sup>[1]</sup>
D03-802	13 watt CFL	36.13	0.00317
D03-807	18 watt CFL	43.82	0.00385
D03-810	23 watt CFL	59.19	0.00520

#### Current LIEE Program

DEER Measure ID	Measure	Gross Annual kWh per unit <sup>[2]</sup>	Gross Annual kW per unit <sup>[2]</sup>
D03-802	13 watt CFL	40.14	0.00353
D03-807	18 watt CFL	48.68	0.00428
D03-810	23 watt CFL	65.77	0.00578

	Budget	Gross MWh	Summer Peak MW	Targeted Homes	CFLs	CO <sub>2</sub>
<b>CFL Program</b>	<b>\$22,000,000</b>	<b>265,301</b>	<b>22.4</b>	<b>926,000</b>	<b>5,700,000</b>	<b>148,220</b>
Current LIEE	n/a <sup>[3]</sup>	15,253	1.3	74,000	300,000	8,522
<b>Total</b>	<b>\$ 22,000,000</b>	<b>280,554</b>	<b>23.7</b>	<b>1,000,000</b>	<b>6,000,000</b>	<b>156,742</b>

<sup>[1]</sup> In Service Factor of .9 and Load Shape Factor of 7.5% was determined according to 2006/08 Residential Upstream Lighting Program E3 Calculator

<sup>[2]</sup> In Service Factor of 1.0 and Load Shape Factor of 7.5% was determined according to 2006/08 Residential Upstream Lighting Program E3 Calculator

<sup>[3]</sup> Currently funded through 2007/08 LIEE program

### 11.3. Quality Assurance and Evaluation Activities

SCE will conduct ongoing quality assurance activities for the procurement, distribution and customer receipt of CFLs. The proposed activities may include, but are not limited to:

- ◆ Track each CFL in this program by putting a unique mark that connects bulbs to the CFL program.
- ◆ CBOs, FBOs and other providers will be given a list of customer addresses to target so that each household will only receive one package of 6 CFLs.

- ◆ Customers will sign an ENERGY STAR® pledge after receiving the CFLs stating they will immediately install the CFLs provided to them and do their part to reduce greenhouse gas emissions.
- ◆ SCE will provide training to service providers on procedures and methods to deliver the CFLs to the customer. CBOs and FBOs will then provide training to their network of canvassers.
- ◆ Once training is completed, SCE will issue canvassing staff an identification badge which will include the individual's picture, name, badge number, effective date of the badge, Agency contact information, and SCE contact information. Canvassing staff will be required to wear this badge during canvassing hours.
- ◆ Ride-alongs will be conducted with the CBOs to confirm proper distribution of CFLs.
- ◆ Random sampling will be conducted by the program manager to verify that CFLs are being distributed properly.
- ◆ To ensure that customers know where to install the CFLs to maximize energy savings, canvassing staff will distribute instructional/educational materials on CFLs and other energy efficiency opportunities.
- ◆ SCE will survey 5,000 program participants using a "stratified random sampling" methodology, using postcard questionnaires. These postcard questionnaires will also serve as a means to gather information on CFL usage and the quality of provider service delivery, along with other information that might indicate design and delivery issues that need correction.
- ◆ SCE will conduct 1,000 to 1,500 telephone surveys to capture key information regarding customer satisfaction, household characteristics, and the installation/use of the program CFLs.

### **11.3.1. Expected Number/Percent of Inspections**

- ◆ Quality Control Customer Feedback Postcards and phone surveys: The program staff will be performing quality assurance through follow-up surveys of 5,000 total addresses serviced by the program and through random phone calls to confirm delivery of the program to the customers. This data collection can also support some measurement data needs for the impact evaluation.
- ◆ Detailed telephone survey: A more detailed telephone survey will augment the postcard survey and will also collect process evaluation data. It will delve more deeply into critical lighting program parameters necessary to support the impact evaluation. This survey sample is expected to be stratified to obtain geographical representation as well as the range of small area income levels. A sample size of 1,000 is anticipated. If there is interest in specifically addressing the LIEE portion of the program (the 74,000 households) the sample size should be increased to 1,500, including another 500 LIEE households.
- ◆ On-Site Surveys: For a small subset of the 1,000 households in the achieved sample, an onsite survey of 100 households will be critical in establishing reliability estimates for the lighting parameters developed from the self-reported data in the telephone surveys.

## **12. Awareness and Outreach Activities**

The CFL Program will coordinate different marketing tactics to educate customers that by taking small steps toward becoming energy efficient, they can make a difference in their energy bill and help save the environment. Moreover, these tactics will assist service providers by making customers aware of the program, creating a sense of awareness and excitement within targeted neighborhoods, and validating that service providers are making

a legitimate offer, supported by SCE and the Commission. Awareness campaigns will leverage opportunities with local retailers, media advertising and direct marketing to achieve the desired levels of customer participation. Additionally, information on other low income programs, including CARE, will be offered during house-to-house distribution. Marketing activities may include, but are not limited to:

- ◆ Newspaper Print Ads in local community papers and in languages spoken within the communities announcing the CFL Program and providing specific dates when SCE’s delivery partners will be in their area.
- ◆ Press releases and media outreach to inform customers about the CFL program and when SCE delivery partners will be in their area.
- ◆ Fact sheets developed in multiple languages and with large print materials for visually-impaired customers to further educate customers about energy efficiency, the impact that changing out incandescent light bulbs can have on the environment, and how actions like this can help improve the environment, along with information about proper disposal of spent CFLs.
- ◆ Door hangers that can be left at customers’ homes that will include information on the program, agency and canvasser information, as well as SCE/contractor contact information.
- ◆ Materials, including flyers, announcing SCE’s schedule to visit neighborhoods, window stickers and other promotional materials that can be distributed to local/participating retail outlets, clinics, community centers, libraries, hospitals, etc., where local residents congregate.
- ◆ Information on SCE’s Web site announcing the CFL Program on key residential program pages, including low income program pages that will include information included on the fact sheet, as well as a downloadable PDF of the fact sheet.
- ◆ Links on SCE’s Website to ENERGY STAR® “Change A Light, Change The World” campaign.
- ◆ SCE may consider a partnership with local radio and media outlets to provide ENERGY STAR® rated appliances to a select number of participants who have displayed their SCE-provided ENERGY STAR® window decal. Any such promotional event would comply with all applicable local, state and federal rules, laws and regulations.

**Appendix C**

**Witness Qualifications**

1                                   **SOUTHERN CALIFORNIA EDISON COMPANY**  
2                                   **QUALIFICATIONS AND PREPARED TESTIMONY**  
3                                   **OF JILL HOLMES**

4 Q. Please state your name and business address for the record.

5 A. My name is Jill Holmes, and my business address is 2244 Walnut Grove Avenue,  
6 Rosemead, California 91770.

7 Q. Briefly describe your present responsibilities at the Southern California Edison Company  
8 (SCE).

9 A. I am a Financial Analyst in the Revenue Requirements section of SCE's Regulatory  
10 Policy and Affairs (RP&A) Department. I am responsible for the monthly calculations  
11 and balances of various Balancing and Memorandum Accounts and the calculations of  
12 various fuel-related and DSM and energy efficiency related filings.

13 Q. Briefly describe your educational and professional background.

14 A. I graduated from San Diego State University in 1980 with a Bachelors of Science Degree  
15 in Business, specializing in Marketing. I worked in the telecommunications industry  
16 from 1980 to 1984. In September of 1984, I went to work for SCE as a  
17 Telecommunication Specialist. I transferred to RP&A in October of 1986 as a  
18 Regulatory Analyst. I have been responsible for revenue requirement and rate design  
19 calculations for resale customers. I have previously testified before the California Public  
20 Utilities Commission.

21 Q. What is the purpose of your testimony in this proceeding?

22 A. The purpose of my testimony in this proceeding is to sponsor portions of Exhibit SCE-1,  
23 entitled *Testimony of Southern California Edison Company in Support of Application for*  
24 *Approval of SCE's "Change A Light, Change The World," Compact Fluorescent Lamp*  
25 *Program*, as identified in the Table of Contents thereto.

26 Q. Was this material prepared by you or under your supervision?

27 A. Yes, it was.

1 Q. Insofar as this material is factual in nature, do you believe it to be correct?

2 A. Yes, I do.

3 Q. Insofar as this material is in the nature of opinion or judgment, does it represent your best  
4 judgment?

5 A. Yes, it does.

6 Q. Does this conclude your qualifications and prepared testimony?

7 A. Yes, it does.



1 A. Yes, I do.

2 Q. Insofar as this material is in the nature of opinion or judgment, does it represent your best  
3 judgment?

4 A. Yes, it does.

5 Q. Does this conclude your qualifications and prepared testimony?

6 A. Yes, it does.



1                                   **SOUTHERN CALIFORNIA EDISON COMPANY**  
2                                   **QUALIFICATIONS AND PREPARED TESTIMONY**  
3                                   **OF MARIAN V. BROWN**

4 Q.     Please state your name and business address for the record.

5 A.     My name is Marian V. Brown, and my business address is 6040 Irwindale Avenue,  
6         Irwindale, California 91702.

7 Q.     Briefly describe your present responsibilities at the Southern California Edison Company  
8         (SCE).

9 A.     I am the manager of Measurement and Evaluation. My primary responsibilities are  
10        planning, supervising staff, and supervising projects involving measurement, market  
11        assessment, and evaluation of energy efficiency, low-income, and demand response  
12        programs.

13 Q.     Briefly describe your educational and professional background.

14 A.     I received a Doctor of Philosophy (Ph.D.) degree in Economics from Stanford University  
15        in 1979 and a Bachelor of Arts (B.A.) degree in Economics from Pomona College in  
16        1968. Prior to joining SCE in 1986, I was an Assistant Professor of Economics at  
17        Pomona College from 1977 to 1986, a Visiting Scholar to the Social Security  
18        Administration in 1984-1985, and a Senior Research Analyst at the National Bureau of  
19        Economic Research--West from 1975-1977.

20        I have been SCE's witness for program measurement and evaluation issues in energy  
21        efficiency and demand response proceedings since the early 1990s. I am SCE's  
22        representative to the California DSM Measurement Advisory Committee (CADMAC)  
23        and the California Measurement Advisory Council (CALMAC) and chair both groups in  
24        some years, in rotation with the other two utilities. I am a life member and past president  
25        of the Association of Energy Services Professionals.

26 Q.     What is the purpose of your testimony in this proceeding?

1 A. The purpose of my testimony in this proceeding is to sponsor portions of Exhibit SCE-1,  
2 entitled *Testimony of Southern California Edison Company in Support of Application for*  
3 *Approval of SCE's "Change A Light, Change The World," Compact Fluorescent Lamp*  
4 *Program*, as identified in the Table of Contents thereto.

5 Q. Was this material prepared by you or under your supervision?

6 A. Yes, it was.

7 Q. Insofar as this material is factual in nature, do you believe it to be correct?

8 A. Yes, I do.

9 Q. Insofar as this material is in the nature of opinion or judgment, does it represent your best  
10 judgment?

11 A. Yes, it does.

12 Q. Does this conclude your qualifications and prepared testimony?

13 A. Yes, it does.

1                                   **SOUTHERN CALIFORNIA EDISON COMPANY**  
2                                   **QUALIFICATIONS AND PREPARED TESTIMONY**  
3                                   **OF GENE E. RODRIGUES**

4 Q.     Please state your name and business address for the record.

5 A.     My name is Gene E. Rodrigues, and my business address is 6042 Irwindale Avenue,  
6         Irwindale, CA 91702.

7 Q.     Briefly describe your present responsibilities at the Southern California Edison Company  
8         (SCE).

9 A.     I am presently the Director of Energy Efficiency for SCE. In that capacity, I have direct  
10        oversight of SCE's portfolio of energy efficiency programs, low-income energy  
11        efficiency programs, the California Alternate Rates for Energy (CARE) program, the self  
12        generation incentives program, and the measurement & evaluation and regulatory support  
13        functions for these areas.

14 Q.    Briefly describe your educational and professional background.

15 A.    I received a Bachelor of Science degree in Education from Northern Arizona University  
16        in 1980 and a Juris Doctor degree from the University of California, Hastings College of  
17        Law in 1988. Before coming to SCE, I taught high school in Arizona and practiced law  
18        with a civil litigation firm in Los Angeles. In 1990, I joined SCE's regulatory law  
19        department, where I provided legal support for SCE's energy efficiency programs, among  
20        other things. Since moving to the business side of SCE, I have held various positions  
21        within the Customer Service Business Unit, managing energy efficiency policy,  
22        operations and regulatory functions. My current position is Director of Energy  
23        Efficiency. I have previously practiced law and testified before the Commission.

24 Q.    What is the purpose of your testimony in this proceeding?

25 A.    The purpose of my testimony in this proceeding is to sponsor portions of Exhibit SCE-1,  
26        entitled *Testimony of Southern California Edison Company in Support of Application for*

1           *Approval of SCE's "Change A Light, Change The World," Compact Fluorescent Lamp*  
2           *Program, as identified in the Table of Contents thereto.*

3   Q.    Was this material prepared by you or under your supervision?

4   A.    Yes, it was.

5   Q.    Insofar as this material is factual in nature, do you believe it to be correct?

6   A.    Yes, I do.

7   Q.    Insofar as this material is in the nature of opinion or judgment, does it represent your best  
8           judgment?

9   A.    Yes, it does.

10   Q.    Does this conclude your qualifications and prepared testimony?

11   A.    Yes, it does.