

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE
STATE OF CALIFORNIA**

Application of Southern California Edison)
Company (U 338-E) for Authority to Implement) A _____
and Recover in Rates the Cost of its Proposed)
Solar Photovoltaic (PV) Program.)
_____)

**APPLICATION OF SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E) FOR
AUTHORITY TO IMPLEMENT AND RECOVER IN RATES THE COST OF ITS
PROPOSED SOLAR PHOTOVOLTAIC (PV) PROGRAM**

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Dated: [March 27, 2008](#)

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I.

SUMMARY OF REQUEST

Pursuant to Rule 3.2 of the California Public Utilities Commission (Commission or CPUC) Rules of Practice and Procedure, Southern California Edison Company (SCE) hereby submits this application requesting the Commission to:

- (1) Find it reasonable for SCE to implement a Solar Photovoltaic (PV) Program that would consist of up to 250 megawatts (MW)¹ of utility-owned solar PV generating facilities of approximately 1 to 2 MW² each over the next five years;
- (2) Establish ratemaking for SCE’s Solar PV Program, specifically including:

¹ Unless otherwise specified, any reference to energy output in this filing follows the common convention within the PV industry, which is to refer to output as PV panel direct current (dc) output. Additionally, SCE proposes using installed dc output in reasonableness reviews because installation occurs in dc panels. The conversion factor of 0.90 will be used to convert from MW dc to MW alternating current (ac) based on sample calculations using the California Energy Commission’s ac MW to conversion (i.e., multiply MW dc by 0.90 to obtain MW CEC-ac Rating).

² SCE envisions the individual Solar PV Program installations to be in the 1 to 2 MW range. As the program proceeds, however, some installations may be larger or smaller than this range due to roof size or circuit loading considerations.

- a) Provision for each solar PV facility to receive rate-base recovery upon its completion, subject to adjustment following reasonableness review if direct capital expenditures exceed certain \$/Watt (W) thresholds each year on average;³ and
 - b) Provision for recovery of reasonable Operation and Maintenance (O&M) expenses.
- (3) Establish an annual estimate of average reasonable capital costs, based on a \$/W threshold, below which no reasonableness review is required;
 - (4) Require SCE to refer the owner/developer of new structures seeking to participate in the Solar PV Program to SCE's Energy Efficiency group for assistance in identifying potential energy efficiency measures that could be incorporated into new structures;
 - (5) Find that SCE's proposed Solar PV Program will not require California Environmental Quality Act (CEQA)⁴ review at this Commission;
 - (6) Establish a new balancing account for recovery of all Solar PV Program costs subject to annual reasonableness review of O&M expenses and reasonableness review of capital expenditures only if capital expenditures exceed a certain \$/W reasonableness threshold on average in a given year; and
 - (7) Establish, through a resolution approving SCE's concurrently filed Advice Letter, a new memorandum account. This will provide a mechanism for recovery of 100% of reasonable start-up costs for the Solar PV Program. If the Commission disapproves the remainder of SCE's application, SCE may request recovery of actually incurred capital expenditures and O&M costs. SCE estimates capital expenditures of \$25 million in 2008. If the Commission does not act on this

³ See Table IV-2, *infra*, for proposed reasonableness thresholds in \$/W.

⁴ Cal. Public Resources Code §§21000, *et seq.*

application in 2008, SCE will continue to record the Solar PV Program costs in the memorandum account in 2009.

SCE proposes immediate start-up of the Solar PV Program. If the program is successful, SCE may seek additional authority to expand the program to 500 MW. An expansion to 500 MW would seek to maintain the momentum of that success. So, there is no hiatus in installing new systems. SCE requests the Commission grant all of its requests and authorize recovery of all costs of the Solar PV Program, including those in the memorandum account, through SCE's proposed Solar PV Program balancing account ratemaking mechanism. SCE requests such approval by year-end 2008.

II.

SUMMARY OF REASONS FOR REQUEST

SCE makes these requests, because:

- California is endowed with abundant solar resources. In recent years, the State has taken bold steps to develop this resource, but more can be done.
- State policies support increased use of solar PV resources primarily through implementation of the California Solar Initiative (CSI). Proceeding with 250 MW of utility-owned solar PV generating facilities will support policies established in the CSI to increase generation of solar PV energy. The output of the program will also count toward meeting Renewable Portfolio Standard (RPS) goals.
- SCE will place the PV systems on larger commercial rooftops with sufficient size and strength to accommodate approximately 1 to 2 MW of generation.⁵ The Solar PV Program will focus, though not exclusively, on those roofs which would typically not employ net energy metering.⁶ For example, large warehouse roofs

⁵ While SCE presently intends the program for rooftops, SCE may pursue other locations and opportunities for placement of Solar PV facilities.

⁶ Net energy metering solar installations, which are limited to 1 MW, allow eligible utility customers to receive CSI incentives and off-set their energy usage by their solar PV system output over a 12-month period.

with little on-site load would not typically employ net energy metering. In doing so, the Solar PV Program will utilize underused rooftops to the State of California's benefit.

- These solar PV systems should not require any transmission construction, because they interconnect directly with SCE's distribution system. So, Solar PV Program power development can move forward more quickly than other forms of renewable generation that depend on construction of new transmission facilities.
- Large scale implementation of about 50 MW of solar PV projects each year will likely introduce efficiencies to the California market for rooftop solar PV generation. The goals are to drive installation costs down, improve technology and pricing of certain component parts, increase installation efficiency, and improve installation methods.
- SCE, as the owner of the Solar PV Program, will capture its output on behalf of its bundled service customers to meet the State's renewable goals.
- SCE is a reliable business partner who can assure implementation and administration of the Solar PV Program. The Solar PV Program provides SCE's customers and the State with a substantial increase in the probability that 250 MW of solar PV rooftop systems will be available to meet State policies and goals supporting solar PV development over the next five years.
- SCE will increase recognition and acceptance of Energy Efficiency (EE) by referring owner/developers of new structures to its EE group to identify potential EE measures that could be incorporated into new structures during construction.
- Ratemaking will allow recovery of reasonable capital and O&M costs as incurred; and
- Immediate start-up of the Solar PV Program will support up to 50 MW of solar PV systems becoming available within one year following Commission approval of this application.

III.

NEED FOR PROJECT AND PROJECT DESCRIPTION

A. Need for Project

1. Solar PV Program Complements The Existing California Solar Initiative (CSI) And Renewable Portfolio Standard Programs

In 2006, Governor Schwarzenegger, working with the Commission and the California Legislature, established a CSI designed to develop 3,000 MW of rooftop solar PV installations by 2016. The State has authorized substantial incentives to achieve this aggressive target of 1 million solar rooftop facilities.

Solar PV is a renewable resource. The State has adopted one of the most aggressive RPS programs in the country. The goal is to have 20% of customer energy needs met with renewable resources.⁷ Although not specifically targeted at solar resources, this RPS program has the potential to yield substantial development of large central station solar resources over the next decade. Several large-scale, central station solar installations are already under contract or in development as a result of SCE's RPS program.

But these programs have arguably left a large solar PV gap. California's CSI program is geared to develop very small solar PV installations. California's RPS program is presently geared to develop very large solar (not necessarily PV) installations. Neither program, however, is well suited to develop medium-scale PV solar installations in the 1 to 2 MW range in the near-term due to size and transmission limitations. And although the economics of 1 to 2 MW facilities are far superior to typical rooftop facilities, they are too large to take full

⁷ Public Utilities Code Section 399.15(b)(1) sets forth a goal that 20% of retail electric sales be served by renewable resources by 2010:

Each retail seller shall, pursuant to subdivision (a), increase its total procurement of eligible renewable resources by at least an additional 1% of retail sales per year so that 20% of its retail sales are procured from eligible renewable energy resources no later than December 31, 2010....

advantage of the State's CSI and net energy metering programs. Many large commercial rooftops have site electrical loads that do not match the energy production of a 1 to 2 MW solar PV facility. Conversely, other utility-scale solar technologies, such as parabolic trough, Stirling dish, and "power tower" installations are not commercially practicable for rooftop installations at the 1 to 2 MW scale. SCE's Solar PV Program fills this solar gap, because this bandwidth of the solar resource is, as yet, going untapped. There is currently no program in place to develop this market sector. SCE proposes immediate start-up of the Solar PV Program to assist in meeting the State's rooftop solar goals and to bridge the gap.

SCE's Solar PV Program is targeted at the vast untapped resource of commercial and industrial rooftop space in SCE's service territory. This program will aggressively bridge the gap between small and large scale solar installations. Although this program will focus on a fertile market sector undeveloped by either the CSI or RPS programs, the program will contribute to meeting both goals. In CSI terms, this program has the potential to add over 80,000 "rooftop equivalents"⁸ in five years or about 10 % of the overall CSI goal of 1 million rooftops. SCE's program will also contribute in the near term to achieving the State's renewable energy goals. Because these installations will interconnect at the distribution level, they can be brought on line relatively quickly without the need to plan, permit, and construct the transmission lines. Larger scale renewable resources generally require transmission line construction to deliver their output to load centers.

SCE is currently pursuing transmission line permitting and construction as one way to help the State meet its renewable energy goals. In addition, SCE's actions to implement its Long Term Procurement Plan (LTPP) and RPS procurement are aimed at advancing the State's renewable energy goals. Decision No. (D).06-05-039 states that "... we will take into account whether or not each electrical corporation undertook all reasonable actions to comply [in

⁸ The State's CSI goal of 3,000 MW by 2016 is based on an average PV installation size of 3 kW, yielding 1 million rooftops. A "rooftop equivalent" is 3 kW. SCE's program goal of 250 MW installed by 2013 yields 83,333 rooftop equivalents.

meeting the State's renewable energy goals]. One of those actions is building, then owning and operating the [renewable] resource itself."⁹ In addition, D.07-02-011 and D.08-02-008 ¹⁰ stated that, "...we encourage IOUs to actively assess the feasibility of utility ownership, and pursue such ownership when and where it makes sense." While the primary purpose of the program is to help meet the State's ambitious solar roof goals, the Solar PV Program will add to SCE's renewable portfolio in response to these challenges. Specifically, in 2009, Solar PV Program installations will produce 0.1% of SCE's customer energy needs; by 2014, Solar PV Program installations will produce approximately 0.4% of SCE's customer energy needs. To assure the availability of this generation as soon as possible after approval of this application, SCE may begin implementation of the Solar PV Program in 2008, while awaiting a final Commission decision on this application.

SCE proposes this program in furtherance of the State's goal to increase the installation of solar PV technology. Our proposed program will achieve this goal at lower cost and will further help jump-start the solar industry. The cost to our customers of the Solar PV Program will be significant, but far less than the cost of CSI implementation. For these reasons, if the CSI goals become mandatory for SCE's customers, SCE requests that the MWs installed under its program be "credited" towards its customers' targets. In addition, the cost impact on our customers is not insubstantial. They already bear the annual cost of the CSI program and the carrying costs of the Solar PV program if SCE's application is granted. This may justify reducing their share of the State's CSI goals and potentially some portion of the CSI program costs our customers contribute.

⁹ D.06-05-039, *mimeo*, p. 34

¹⁰ D.07-02-011, *mimeo*, p. 25 and D.08-02-008, *mimeo*, p. 33

2. SCE Can Best Develop Solar PV Program

SCE, as the operator of its distribution system, has the technical expertise to thoroughly and fairly evaluate the various solar PV technologies and the impacts on its distribution system. SCE will claim the output of the Solar PV Program as renewable energy on behalf of its bundled service customers to help meet SCE's renewable goals.

SCE can effectively monitor and cost-effectively facilitate repair of these systems through its field personnel. SCE can also utilize its established electric supply relationships with potential vendors and commercial building lessors who are also its customers. SCE has the ability to utilize established longstanding relationships with these entities over the 100 plus years that SCE has been in business. Those counterparties view SCE as a stable, competent, and reliable business. SCE's strong balance sheet and procurement expertise allows it to negotiate reasonable contracts with rooftop owners and vendors.

SCE expects that through negotiations with vendors it can obtain volume discounts for its proposed base case investment of \$875 million. Most solar PV developers are unlikely to achieve these same efficiencies and pricing levels. SCE's Solar PV Program will move quickly because of its established relationships with key players. According to CSI data, more than 40% of the applications for projects over 900 kW in SCE's service territory have been cancelled or suspended since CSI was implemented in January 2007. In addition, most solar PV developers have been in business for only a few years. Given the size and proposed rollout of the Solar PV Program, SCE uniquely can provide customers and the State a substantial increase in the probability that 250 MW of solar PV systems will be available to meet the State goals over the next five years.

SCE can coordinate the Solar PV Program with customer demand shifting using existing SCE demand reduction programs on the same circuit. This will create more fully utilized distribution circuit assets. Without such coordination, much more distribution equipment may be needed to increase solar PV deployment. SCE is uniquely situated to combine Solar PV Program generation, customer demand programs, and advanced distribution

circuit design and operation into one unified system. This is more cost-effective than separate and uncoordinated deployment of each element on separate circuits.

Finally, SCE, as a regulated public utility is willing to share the results of its experience with solar PV with other entities in the State. Specifically, SCE will share information about: (1) how solar PV systems of 1 to 2 MW interface with SCE's distribution system; (2) forecasting and scheduling of solar PV generating facilities of 1 to 2 MW disbursed throughout SCE's inland service territory; (3) training and increasing efficiency of the skilled workforce for installation and maintenance of these facilities including development of best installations practices for 1 to 2 MW solar PV projects; and (4) potential streamlining and revision of tariff applications, local and State codes. These publicly shared "lessons learned" will benefit the entire PV industry. The information collected by SCE will provide useful knowledge and best practices to other entities which increase the efficiency of all solar PV installations in California.

3. The Solar PV Program Could Drive Costs Down And Increase Efficiencies

SCE's 50 MW of solar PV facilities each year could: (1) refine production of parts, (2) improve the capabilities of ancillary equipment, (3) make use of vacant commercial rooftops in California, and (4) increase the efficiency of installation of PV systems. To meet the ambitious goals of the Solar PV Program, SCE will order large numbers of solar PV mounting and electrical connection parts each year. The increased scale of manufacturing required by such orders should lead manufacturers to improve designs and to increase their efficiency and capability to produce such parts. Manufacturers will also likely have the economic incentive to improve manufacturing processes to incorporate economies of scale that drive prices down.

SCE's Solar PV Program will also expand the number of skilled workers by increasing the number of installations of solar PV systems of 1 to 2 MW. Skilled workers will gain efficiency and knowledge simply by repetitively performing installations. Labor is

currently about 20% of the cost of any solar PV installation. SCE should drive costs of solar PV installation lower by improving the efficiency of workers.

The purpose of the Solar PV Program is to create efficiencies in the California solar PV market by providing a market for 1 to 2 MW solar PV systems. This will give SCE and California much more experience with such systems. Utilities throughout the United States can use the experience gained in California as a model for their own Solar PV development programs.

B. Project Description

1. The Solar PV Program Will Provide Up To 250 MW Of Renewable Generation Over The Next Five Years

SCE contemplates that Solar PV Program's first five years would yield about 50 MW in total each year of installations of 1 to 2 MW solar PV facilities. Over the first five years, this would total 250 MW. SCE seeks to create efficiencies in the California market for solar PV equipment and installation resources, but, at the same time, to not overheat the market for solar PV panels, equipment, and installation resources. In SCE's judgment, 50 MW per year should trigger new efficiencies, but not drive prices up due to materials shortages.¹¹

It should be noted that the Solar PV Program installation goals are all based on the PV industry convention of using direct current (dc) output. The power output figures referenced in this document, unless otherwise noted, refer to manufacturer's panel dc ratings. As discussed in SCE's testimony, SCE has chosen a conversion factor from dc to alternating current (ac) output of 0.90 based on sample calculations. Using this conversion factor, a 1 MW dc facility converts to 900 kW ac facility.

¹¹ If the program is successful, SCE may seek Commission authority to increase the overall size of the Solar PV Program to 500 MW. The additional 250 MW would likely be realized through the combination of installing more MW per year and lengthening the program term itself.

All costs and sizing of solar PV facilities described in this application are based on dc power. The entire solar PV industry historically bases costs and sizing on dc power. SCE must convert generally, the dc power to ac power for use on its distribution system. Inverters perform this conversion. Inverters also control the interface between the solar array and the distribution grid. Inverters are currently available in various sizes up to 500 kilowatts (kW) ac for large systems. The Solar PV Program should lead to improvements in inverter technology by increasing orders for these components and by testing their usefulness to the distribution grid.

Solar PV systems also include conduit, wire, dc and ac disconnects (safety devices to turn off or isolate parts of the system) and combiner boxes. Most solar PV systems require some type of attachment method. This product is typically called a rack. The Solar PV Program will utilize only non-penetrating racks which sit on top of the roof. Non-penetrating racks require some weight to be added to the rack (ballasted) or primarily rely on the weight of the rack and modules themselves to hold the array in place (non-ballasted).

2. Use of Rooftop Space for Facilities

SCE intends to install up to 250 MW of 1 to 2 MW solar PV facilities on commercial building rooftops at various locations within SCE's service territory. The proposed 1 to 2 MW facility per location will require up to about 250,000 square feet of useable rooftop space in each location. For this Solar PV Program, SCE will look to a limited number of building owner/developers to provide an inventory of appropriate locations. This process should more efficiently select appropriate locations and reduce the time from locating the site to installation by limiting the number of simultaneous lease negotiations.

SCE will develop methods to determine the optimal location for the solar PV facilities. SCE will consider: (1) quality of the local solar resources by estimating expected PV generation based on factors such as expected cloud/fog cover, haze and smog, ambient temperature, and geographical latitude and other meteorological data, (2) roof capacity and other building attributes, and (3) local distribution circuit concerns. To determine the quality of the

local solar resource, SCE will rely on the National Renewable Energy Lab (NREL) database that provides information about the highest quality local resources down to 10 kilometer (km) grids. SCE will also consider other relevant meteorological data.

SCE must also consider the ability of the commercial rooftops to handle the additional weight loading which can vary based on the technology employed. In general, the roofs must hold an additional 3 to 5 pounds per square foot. SCE will also identify customers owning buildings that typically would not benefit from net energy metering. SCE will also take into account the ease of local permitting and the availability of ground space to install inverters and transformers, which are too heavy to install on a roof.

SCE will also refer owner/developers of new buildings seeking to participate in the Solar PV Program to its EE group. SCE's EE group can then identify potential EE measures to be incorporated into the building's design. This will increase awareness and acceptance of the benefits of EE measures among building owners/developers.

3. Program Costs

Solar PV Program costs include: (1) capital costs of initial installation of the 1 to 2 MW solar PV facilities; and (2) the O&M costs, including roof lease payments, other O&M and staffing costs. Solar PV Program installation costs are likely to be lower than those of a single 1 to 2 MW solar PV facility because of economies of scale. SCE's consistent purchases of solar PV components and installation services should drive costs down by improving technology of component parts and improving efficiency of skilled work forces.

a) Capital

Table III-1 below contains SCE's base case estimate of the capital costs of Solar PV Program over the five-year period.

Table III-1
Solar PV Program Estimated Base Case Capital Costs
(2008\$ 000)

Year	Capital (Million \$)	MW Installed	Estimated Time Frame
0	\$25	5	2008
1	\$174	50	2009
2	\$174	50	2010
3	\$174	50	2011
4	\$174	50	2012
5	\$154	45	2013
Total	\$875	250	

The Solar PV Program base case direct capital cost forecast is \$875 million. The average cost of the solar PV facilities should be about \$3.50/W.¹² At present, the average cost of solar PV facilities above 900 kilowatts (kW) range from \$6.56-7.08/W. SCE anticipates achieving lower costs than the present average through economies of scale and improvements in technology and efficiency.

b) O&M Costs

As noted previously, O&M costs consist of three components: (1) roof lease payments; (2) other O&M costs; and (3) SCE staffing costs. With regard to the roof lease payments, this is a new opportunity for the large rooftop owners. So, it is difficult to estimate expected leasing rates. However, SCE anticipates that the maximum price paid for these roof

¹² On average, the reasonableness threshold is 10% higher than the base case estimate or about \$3.85/W. The reasonableness threshold is higher than this amount in early years of the Solar PV Program and lower in later years, as shown in Table IV-2 below.

leases will be a small percentage of the value of the electricity produced. It is difficult to effectively estimate the roof lease payments until SCE has negotiated at least one rooftop lease. Moreover, identifying an expected lease cost prior to lease negotiations could prejudice lease negotiations to the detriment of SCE's customers. The estimated Other O&M costs for a 1 MW solar PV facility are \$35,000 per year. For a 2 MW solar PV facility, these Other O&M costs would be roughly double the amount required for a 1 MW system. The SCE annual staffing costs to run the Solar PV Program are forecast to be \$1.4 million at full deployment.

IV.

PROPOSAL FOR COST RECOVERY

A. The Commission Should Adopt SCE's Proposed Solar PV Program Balancing Account (SPVPBA) For Rate Recovery of Solar PV Program Costs

SCE requests that the Commission provide rate recovery of Solar PV Program costs through its proposed SPVPBA. The SPVPBA will ensure that no more and no less than reasonable actual costs associated with the Solar PV Program are ultimately recovered from customers.¹³ Balancing account treatment is appropriate for this type of renewable resource. The Solar PV Program costs ramp up over time. The program should introduce efficiencies into the California solar PV market. SCE expects solar PV costs to go down as a result of the Solar PV Program. Cost estimates, therefore, are likely to be difficult to predict during this period.

The SPVPBA would operate through the 2009-2013 program period. The SPVPBA would end with the inclusion of both Solar PV Program O&M and capital revenue requirements in SCE's Test Year 2015 General Rate Case (GRC) revenue requirement or sooner.

Concurrent with this filing, SCE will file an advice letter requesting Commission authority to establish a Solar PV Program Memorandum Account (SPVPMMA). SCE will record

¹³ By paying for these costs, SCE's bundled service customers would see a reduction in their energy procurement costs reflected in SCE's Energy Resource Recovery Account (ERRA) revenue requirement because SCE would not need to procure the equivalent amount of energy from other sources.

start-up costs associated with the Solar PV Program in the SPVPMA while this application is pending. SCE estimates start-up direct capital costs to be \$25 million in 2008. If the Commission does not act on this application in 2008, SCE may record the revenue requirement for capital costs above \$25 million in the SPVPMA. The SPVPMA is necessary to ensure that the Solar PV Program can proceed without delay and without precluding cost recovery at a future date. Similar to all Commission-approved memorandum accounts, the SPVPMA will protect against retroactive ratemaking concerns, but will not guarantee rate recovery of any recorded costs prior to Commission review and approval. Once the Commission approves SCE's request to establish the SPVPBA in this application, SCE will transfer the balance recorded in the SPVPMA to the SPVPBA.

B. The Commission Should Adopt SCE's Proposed Reasonableness Standard For These Clean, Renewable Generation Resources

SCE proposes to include testimony supporting the reasonableness of the Solar PV Program O&M costs recorded in the SPVPBA during the prior calendar year in its annual April Energy Resources Recovery Account (ERRA) reasonableness proceeding. If its Solar PV Program capital expenditures in each calendar year of the program, on a per W basis, are less than the amounts shown in Table IV-2 below, then capital expenditures would be deemed to be reasonable.

Table IV-2
Reasonableness Review Threshold For Solar PV Program Direct Capital Costs
(2008\$)¹⁴

Expenditures Incurred During	\$/W
2008	5.50
2009	3.83
2010	3.83
2011	3.83
2012	3.83
2013	3.76

The capital expenditure threshold levels in Table IV-2 are reasonable because they represent SCE’s base case estimate of Solar PV Program costs of \$875 million plus a reasonable 10% contingency to take total reasonable costs up to \$962.5 million.

In any year that SCE’s direct capital expenditures, on a \$/W basis on average, exceed the amounts in Table IV-2 above, as escalated. SCE will include in its annual April ERRA reasonableness proceeding testimony supporting the reasonableness of the capital expenditures during the previous calendar year. Even if no reasonableness testimony for capital expenditures is required, SCE will include the Solar PV Program costs in its annual April ERRA reasonableness proceeding. This will allow the Commission to audit and review the O&M and capital revenue requirement recorded in the SPVPBA.

¹⁴ These threshold amounts will be escalated to nominal year amounts for use in reasonableness review.

V.

THIS APPLICATION FOR RECOVERY OF THE SOLAR PV PROGRAM'S COST IS EXEMPT FROM CEQA REVIEW

It is long established that the act of ratemaking by the Commission is exempt from CEQA review. As stated in the California Public Resources Code, the “establishment, modification, structuring, restructuring, or approval of rates, tolls, fares, or other charges by public agencies” including “obtaining funds for capital projects necessary to maintain service areas” is exempt from CEQA.¹⁵

Further, agencies such as the Commission may dispense with CEQA review “if it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment”¹⁶ In this case, it is clear that the activity of installing rooftop PV systems would not have a significant effect on the environment. First, the nature of SCE’s proposed Solar PV Program dictates that installations would not be undertaken in residential areas. Instead, installations would likely take place on large warehouse/distribution buildings located in industrial areas. Further, none of the rooftop arrays would be visible from street level angles and building parapets would contribute to the arrays being hidden from view. In addition the inverter systems would either be located within building electrical rooms or would otherwise be located next to buildings in an obtrusive manner. As a result, the installation of rooftop PV systems will not have a significant effect on the environment.

The evidence that the installation of rooftop PV systems would not have a significant effect on the environment is bolstered by the fact that rooftop PV systems do not require local discretionary approvals. Instead, the installation of PV Facilities on rooftops in the contemplated locations can be accomplished through the application for and acquisition of local,

¹⁵ Cal. Pub. Resources Code Section 21080 (b)(8)

¹⁶ CEQA Guidelines Section 15061 (b) (3)

non-discretionary, building permits.¹⁷ As a result, the installation of PV systems on rooftops by SCE is not subject to local review under CEQA¹⁸. Even if the installation of PV systems on rooftops were subject to CEQA review, at this early planning stage, SCE is uncertain as to the PV rooftop system installation locations, and as a result there would be no ability to perform any CEQA analysis at a local level review.

Under the California Solar Rights Act,¹⁹ local governments are precluded from adopting ordinances that would unreasonably restrict the use of solar energy systems in residential and commercial capacities. The section also states that it is the intent of the Legislature to prohibit local governments from adopting ordinances that “create unreasonable barriers to the installation of solar energy systems, including but not limited to, design review for aesthetic purposes...”²⁰ The Act also requires that local governments use a non-discretionary permitting process for solar energy systems²¹. State law requires that this non-discretionary review process be limited to “those standards and regulations necessary to ensure that the solar energy system will not have a specific, adverse impact upon the public health or safety”²². Fundamentally, the Act prevents cities and counties from denying solar energy system building permits unless there is substantial recorded evidence that it would have a specific, adverse impact on public health and safety. If the local permitting agency found that the potential for an adverse impact existed, it could require that a discretionary permit be issued.²³ In such a case, however, SCE would not pursue the installation of PV Facilities. Since SCE would not pursue the installation of PV Facilities in

¹⁷ If SCE were installing PV systems in a Coastal Zone, Coastal Commission permitting may be required. SCE does not intend to install PV systems in Coastal Zones.

¹⁸ Cal. Pub. Resources Code Section 21080, subs. (a) (b)(1)

¹⁹ The Solar Rights Act is comprised of the following California Codes: Civil Code Sections 714 and 714.1, Civil Code Section 801 and 801.5, Government Code Section 65850.5, Health and Safety Code Section 17959.1, Government Code Section 66475.3 and Government Code Section 66473.1

²⁰ Govt. Code Section 65850.5

²¹ See, Govt. Code Section 65850.5 (a) and Health and Safety Code Section 17959.1

²² Govt. Code Section 65850.5 (b)

²³ Govt. Code Section 65850.5 (c)

instances where a discretionary permit would be required, the installation of the SCE PV Facilities is not subject to local CEQA review.

Even though this ratemaking is exempt from CEQA review, and the installation of PV Facilities is exempt from CEQA review, such facilities must still comply with all “applicable safety and performance standards established by the National Electric Code, the Institute of Electrical and Electronics Engineers and accredited testing laboratories such as Underwriters Laboratories, and the rules of the Public Utilities Commission regarding safety and reliability.”²⁴

VI.

STATUTORY AND PROCEDURAL REQUIREMENTS

A. Statutory and Procedural Authority

Rule 2.1 requires that all applications: (1) clearly and concisely state authority or relief sought; (2) cite the statutory or other authority under which that relief is sought; and (3) be verified by the applicant. Rule 2.1 sets forth further requirements that are addressed separately below. The relief being sought is summarized in Sections I (Summary of Request) and VIII (Conclusion), and is further described in the testimony accompanying this application. The statutory and other authority under which this relief is being sought include California Public Utilities Code Sections 451, 454, 454.3, 491, 701, 728, 729, Article 2 and Rule 3.2 of the Commission’s Rules of Practice and Procedure, and prior decisions, orders, and resolutions of this Commission. This application has been verified by an SCE officer as provided in Rules 1.11 and 2.1.

²⁴ Govt. Code Section 65850.5(f) (3)

B. Rule 2.1

Rule 2.1 requires that applications shall state “the proposed category for the proceeding, the need for hearings, the issues to be considered, and a proposed schedule.” These requirements are discussed below.

1. Proposed Categorization

SCE proposes to characterize this proceeding as “ratesetting” as defined in the Commission’s Rules of Practice and Procedure, Rule 1.3(e) and Public Utilities Code §1701.1 (c)(3).

2. Need for Hearings and Proposed Schedule for Resolution of Issues

SCE’s proposed schedule assumes that there will be evidentiary hearings and briefing.

If the Commission believes evidentiary hearings are necessary, then SCE proposes the following schedule. This schedule will provide for a Commission decision by year end 2008, which will enable SCE to limit capital expenditures prior to Commission approval to \$25 million.

SCE files Application	March 27, 2008
Daily Calendar Notice Appears	March 27, 2008
Protests Due	April 28, 2008
Reply to Protests	May 8, 2008
Prehearing Conference	May 15, 2008
ORA and Intervenors File Opening Testimony	June 16, 2008
Rebuttal Testimony Due	June 30, 2008
Hearings	July 7-11, 2008
Concurrent Opening Briefs Due	August 4, 2008
Concurrent Reply Briefs Due	August 16, 2008
Commission Issues Proposed Decision	November 1, 2008
Comments to Proposed Decision Due	December 1, 2008
Replies to Comments to Proposed Decision	December 8, 2008
Commission issues Final Decision	December 18, 2008

3. Issues to be Considered

The issues to be considered in this proceeding are described above and set forth in greater detail in SCE's testimony in support of this application. Major issues include:

- a) Whether to approve the implementation of SCE's Solar PV Program and authorize funding; and
- b) Whether to adopt SCE's proposed ratemaking treatment for the recovery of the costs associated with the implementation of SCE's Solar PV Program.

4. Legal Name and Correspondence

Southern California Edison Company is an electric public utility organized and existing under the laws of the State of California. The location of SCE's principal place of business is 2244 Walnut Grove Avenue, Post Office Box 800, Rosemead, California 91770. SCE's attorneys in this matter are Douglas K. Porter, Carol A. Schmid-Frazee and Annette Gilliam. Correspondence or communications regarding this application should be addressed to:

Carol A. Schmid-Frazee
Senior Attorney
Southern California Edison Company
P.O. Box 800
2244 Walnut Grove Avenue
Rosemead, California 91770
Telephone: (626) 302-1337
Facsimile: (626) 302-1935
e-mail: carol.schmidfrazee@sce.com

To request a copy of this application, please contact:

Melissa Schary
Southern California Edison Company
P.O. Box 800
2244 Walnut Grove Avenue
Rosemead, California 91770
Telephone: (626) 302-6509
Facsimile: (626) 302-3119
E-mail: melissa.schary@sce.com

C. Articles of Incorporation – Rule 2.2

A copy of SCE’s Certificate of Restated Articles of Incorporation, effective on March 2, 2006, and presently in effect, certified by the California Secretary of State, was filed with the Commission on March 14, 2006, in connection with Application No. 06-03-020, and is by reference made a part hereof.

Certain classes and series of SCE’s capital stock are listed on a “national securities exchange” as defined in the Securities Exchange Act of 1934 and copies of SCE’s latest Annual Report to Shareholders and its latest proxy statement sent to its stockholders has been filed with the Commission.

D. Authority to Increase Rates – Rule 3.2

Rule 3.2 requires that applications for authority to increase rates, or to implement changes that would result in increased rates, contain the following data.

1. Balance Sheet and Income Statement – Rule 3.2(a)(1)

Appendix A to this application contains copies of SCE’s balance sheet as of December 31, 2007, and income statement for the period ended December 31, 2007, the most recent period available.

2. Present and Proposed Rates – Rule 3.2(a)(2) and (a)(3)

The cost recovery mechanism proposal is summarized in Section IV above.

The cost recovery mechanism proposal and the projected impact on rates are discussed in Exhibit SCE-1.

3. Description of SCE’s Service Territory and Utility System – Rule 3.2(a)(4)

Because this submittal is not a general rate application, this requirement is not applicable.

4. Summary of Earnings – Rule 3.2(a)(5)

Rule 3.2(a)(5) requires:

A summary of earnings (rate of return summary) on a depreciated rate base for the test period or periods upon which applicant bases its justification for an increase.

SCE’s 2007 Summary of Earnings is attached hereto as Appendix B.

5. Depreciation – Rule 3.2(a)(7)

Because this submittal is not a general rate application, this requirement is not applicable.

6. Capital Stock and Proxy Statement – Rule 3.2(a)(8)

Because this submittal is not a general rate application, this requirement is not applicable.

7. Statement Pursuant to Rule 3.2(a)(10)

Rule 3.5(a)(10) requires the applicant to state whether its request is limited to passing through to customers “only increased costs to the corporation for the services or commodities furnished by it.” This application seeks only to pass through to SCE’s customers the costs incurred by SCE in its Solar PV Program.

8. Service of Notice – Rule 3.2(b), (c) and (d)

A list of the cities and counties affected by the rate changes resulting from this application is attached as Appendix C. The State of California is also an SCE customer whose rates would be affected by the proposed revisions.

As provided in Rule 3.2(b) – (d), notice of filing of this application will be:

(1) mailed to the appropriate officials of the state and the counties and cities listed in Appendix C; (2) published in a newspaper of general circulation in each county in SCE’s service territory within which the rate changes would be effective; and (3) mailed to all customers affected by the proposed changes.

E. Service List

SCE is serving this application and its exhibits on all parties on the Commission’s service lists for proceedings A.07-11-011 and R.08-02-007.

VII.

CONCLUSION

SCE respectfully requests that the Commission:

- (1) Find it reasonable for SCE to implement the Solar PV Program consisting of the installation of up to 250 MW of utility-owned solar PV generating facilities (of approximately 1 to 2 MW each) over the next five years;
- (2) Establish ratemaking for SCE for the Solar PV Program, specifically including:
 - a) Provision for each solar 1 to 2 MW PV facility to receive rate-base recovery upon its completion, subject to adjustment following reasonableness review if direct capital expenditures exceed certain \$/W thresholds each year on average; and

- b) Provision for recovery of reasonable Operation and Maintenance (O&M) expenses.
- (3) Establish an annual estimate of average reasonable capital costs, based on \$/W threshold, below which no reasonableness review is required;
 - (4) Require SCE to refer the owner/developer of new structures seeking to participate in the Solar PV Program to SCE's Energy Efficiency group to identify potential energy efficiency measures that could be incorporated into new structures;
 - (5) Find that SCE's proposed Solar PV Program will not require CEQA²⁵ review at this Commission;
 - (6) Establish a balancing account for recovery of all Solar PV Program costs subject to annual reasonableness review of O&M expenses and reasonableness review of capital expenditures only if capital expenditures exceed a certain \$/W reasonableness threshold on average in a given year;
 - (7) Establish, through a resolution approving SCE's concurrently filed Advice Letter, a new memorandum account. This will provide a mechanism for recovery of 100% of reasonable start-up costs for the Solar PV Program. If the Commission disapproves the remainder of SCE's application, SCE may request recovery of actually incurred capital expenditures and O&M costs. SCE estimates capital expenditures of \$25 million in 2008. If the Commission does not act on this application in 2008, SCE will continue to record the revenue requirement for the Solar PV Program costs in the memorandum account in 2009; and
 - (8) Adopt any other measures necessary to support SCE's Solar PV Program.

²⁵ Cal. Public Resources Code §§21000, et seq.

Dated this 27th day of March 2008, at Rosemead, California.

Respectfully submitted,

SOUTHERN CALIFORNIA EDISON COMPANY

/s/ Richard M. Rosenblum

By: Richard M. Rosenblum
Executive Vice President

DOUGLAS K. PORTER
CAROL A. SCHMID-FRAZEE
ANNETTE GILLIAM

/s/ Carol A. Schmid-Fraze
By: Carol A. Schmid-Fraze

Attorneys for
SOUTHERN CALIFORNIA EDISON COMPANY

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March 27, 2008

VERIFICATION

I am an officer of the applicant corporation herein, and am authorized to make this verification on its behalf. I am informed and believe that the matters stated in the foregoing document are true.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this **27th day of March, 2008**, at Rosemead, California.

/s/ Richard M. Rosenblum

Richard M. Rosenblum

Executive Vice President

SOUTHERN CALIFORNIA EDISON COMPANY

2244 Walnut Grove Avenue

P.O. Box 800

Rosemead, CA 91770

Appendix A

Southern California Edison Company's

Balance Sheet and Income Statement

SOUTHERN CALIFORNIA EDISON COMPANY

BALANCE SHEET

DECEMBER 31, 2007

A S S E T S

(Millions of Dollars)

UTILITY PLANT:

Utility plant, at original cost	\$20,707
Less - Accumulated depreciation and decommissioning	(5,174)
	<u>15,533</u>
Construction work in progress	1,693
Nuclear fuel, at amortized cost	177
	<u>17,403</u>

OTHER PROPERTY AND INVESTMENTS:

Nonutility property - less accumulated provision for depreciation of \$701	1,000
Nuclear decommissioning trusts	3,378
Other Investments	69
	<u>4,447</u>

CURRENT ASSETS:

Cash and equivalents	252
Margin and collateral deposits	37
Receivables, including unbilled revenues, less reserves of \$34 for uncollectible accounts	725
Accrued unbilled revenue	370
Inventory	283
Accumulated deferred income taxes - net	146
Derivative assets	54
Regulatory assets	197
Other current assets	188
	<u>2,252</u>

DEFERRED CHARGES:

Regulatory assets	2,721
Derivative assets	28
Other long-term assets	629
	<u>3,378</u>
	<u>\$27,480</u>

SOUTHERN CALIFORNIA EDISON COMPANY

BALANCE SHEET

DECEMBER 31, 2007

CAPITALIZATION AND LIABILITIES

(Millions of Dollars)

CAPITALIZATION:

Common stock	\$2,168
Additional paid-in capital	507
Accumulated other comprehensive loss	(15)
Retained Earnings	<u>3,568</u>
Common shareholder's equity	6,228
Preferred and preference stock not subject to redemption requirements	929
Long-term debt	<u>5,081</u>
	<u>12,238</u>

CURRENT LIABILITIES:

Short-term debt	500
Accounts payable	914
Accrued taxes	42
Accrued interest	126
Counterparty collateral	42
Customer deposits	218
Book overdrafts	204
Derivative liabilities	100
Regulatory liabilities	1,019
Other current liabilities	548
	<u>3,713</u>

DEFERRED CREDITS:

Accumulated deferred income taxes - net	2,556
Accumulated deferred investment tax credits	105
Customer advances	155
Derivative liabilities	13
Power purchase contracts	22
Accumulated provision for pensions and benefits	786
Asset retirement obligations	2,877
Regulatory liabilities	3,433
Other deferred credits and other long-term liabilities	1,136
	<u>11,083</u>
Minority interest	446
	<u>\$27,480</u>

SOUTHERN CALIFORNIA EDISON COMPANY

STATEMENT OF INCOME

YEAR ENDED DECEMBER 31, 2007

(Millions of Dollars)

OPERATING REVENUE	<u>\$10,478</u>
OPERATING EXPENSES:	
Fuel	1,191
Purchased power	3,124
Provisions for regulatory adjustment clauses - net	271
Other operation and maintenance expenses	2,840
Depreciation, decommissioning and amortization	1,094
Property and other taxes	217
Total operating expenses	<u>8,737</u>
OPERATING INCOME	1,741
Interest income	44
Other nonoperating income	89
Interest expense - net of amounts capitalized	(429)
Other nonoperating deductions	(45)
INCOME BEFORE TAX AND MINORITY INTEREST	<u>1,400</u>
INCOME TAX EXPENSE	337
MINORITY INTEREST	<u>305</u>
NET INCOME	758
DIVIDENDS ON PREFERRED AND PREFERENCE STOCK - NOT SUBJECT TO MANDATORY REDEMPTION	<u>51</u>
NET INCOME AVAILABLE FOR COMMON STOCK	<u><u>\$707</u></u>

Appendix B

Southern California Edison Company's

2008 Summary of Earnings

**Southern California Edison
Summary of Earnings
2008 GRC-Related Adopted Revenue Requirement ^{1/}
Thousands of Dollars**

Line No.	Item	Total
1.	Base Revenues	4,113,324
2.	Expenses:	
3.	Operation & Maintenance	1,874,463
4.	Depreciation	882,131
5.	Taxes	617,599
6.	Revenue Credits	(170,624)
7.	Total Expenses	3,203,569
8.	Net Operating Revenue	909,755
9.	Rate Base	10,397,198
10.	Rate of Return	8.75%

^{1/} D.06-05-016/Advice Letter 2176-E and 2196-E
Includes one SONGS 2&3 refueling and maintenance outage

Appendix C

List of Cities and Counties

SOUTHERN CALIFORNIA EDISON COMPANY

Citizens or some of the citizens of the following counties and municipal corporations will or may be affected by the changes in rates proposed herein.

COUNTIES

Fresno	Kings	Orange	Tuolumne*
Imperial	Los Angeles	Riverside	Tulare
Inyo	Madera	San Bernardino	Ventura
Kern	Mono	Santa Barbara	

MUNICIPAL CORPORATIONS

Adelanto	Cudahy	La Habra	Ojai	Santa Monica
Agoura Hills	Culver City	La Habra Heights	Ontario	Santa Paula
Alhambra	Cypress	La Mirada	Orange	Seal Beach
Aliso Viejo	Delano	La Palma	Oxnard	Sierra Madre
Apple Valley	Desert Hot Springs	La Puente	Palm Desert	Signal Hill
Arcadia	Diamond Bar	La Verne	Palm Springs	Simi Valley
Artesia	Downey	Laguna Beach	Palmdale	South El Monte
Avalon	Duarte	Laguna Hills	Palos Verdes Estates	South Gate
Baldwin Park	El Monte	Laguna Niguel	Paramount	South Pasadena
Barstow	El Segundo	Laguna Woods	Perris	Stanton
Beaumont	Exeter	Lake Elsinore	Pico Rivera	Tehachapi
Bell	Farmersville	Lake Forest	Placentia	Temecula
Bell Gardens	Fillmore	Lakewood	Pomona	Temple City
Bellflower	Fontana	Lancaster	Port Hueneme	Thousand Oaks
Beverly Hills	Fountain Valley	Lawndale	Porterville	Torrance
Bishop	Fullerton	Lindsay	Rancho Cucamonga	Tulare
Blythe	Garden Grove	Loma Linda	Rancho Mirage	Tustin
Bradbury	Gardena	Lomita	Rancho Palos Verdes	Twentynine Palms
Brea	Glendora	Long Beach	Rancho Santa Margarita	Upland
Buena Park	Goleta	Los Alamitos	Redlands	Victorville
Calabasas	Grand Terrace	Lynwood	Redondo Beach	Villa Park
California City	Hanford	Malibu	Rialto	Visalia
Calimesa	Hawaiian Gardens	Mammoth Lakes	Ridgecrest	Walnut
Camarillo	Hawthorne	Manhattan Beach	Rolling Hills	West Covina
Canyon Lake	Hemet	Maywood	Rolling Hills Estates	West Hollywood
Carpinteria	Hermosa Beach	McFarland	Rosemead	Westlake Village
Carson	Hesperia	Mission Viejo	San Bernardino	Westminster
Cathedral City	Hidden Hills	Monrovia	San Buenaventura	Whittier
Cerritos	Highland	Montclair	San Dimas	Woodlake
Chino	Huntington Beach	Montebello	San Fernando	Yorba Linda
Chino Hills	Huntington Park	Monterey Park	San Gabriel	Yucaipa
Claremont	Indian Wells	Moorpark	San Jacinto	Yucca Valley
Commerce	Industry	Moreno Valley	San Marino	
Compton	Inglewood	Murrieta	Santa Ana	
Corona	Irvine	Newport Beach	Santa Barbara	
Costa Mesa	Irwindale	Norco	Santa Clarita	
Covina	La Canada Flintridge	Norwalk	Santa Fe Springs	

*SCE provides electric service to a small number of customer accounts in Tuolumne County and is not subject to franchise requirements.

Appendix D

Background Information on CSI

I.

BACKGROUND INFORMATION ON CSI

1. Background of Solar Efforts in California

Large utility-scale applications of solar PV and other solar powered electric systems date back to 1978, when Congress passed the Public Utility Regulatory Policy Act, or PURPA. PURPA established the right for independent power producers, some of which used solar power, to interconnect with the local utility distribution system. Then Congress passed the Energy Tax Act (ETA) of 1978 in response to the energy crises of the 1970's initiated by the Arab oil embargo and the taking of U.S. hostages in Iran. The ETA encouraged homeowners to invest in energy conservation and solar and wind technologies through tax credits.²⁶ However, the incentives were phased out in the mid-1980s as a result of federal policies to leave energy conservation and renewable energy decisions up to market conditions. Nevertheless, the federal tax credits spurred the creation of new utility-scale solar.²⁷

²⁶ A federal energy tax credit of up to \$2,000 was given for devices installed on people's homes on or after April 20, 1977 and before January 1, 1986. Solar space and water heating carried a 40% tax credit, while weatherization, insulation, and similar conservation activities carried a 15% tax credit.

²⁷ Some of the solar projects included:

- In 1979, ARCO Solar began construction of the world's largest PV manufacturing facility in Camarillo, California. ARCO Solar was the first company to produce more than 1 MW of PV modules in one year. Four years later, ARCO Solar dedicated a 6 MW, 120-acre, unstaffed PV facility in central California in the Carrissa Plain, which supplied PG&E's grid with power for about 2,500 homes. ARCO Solar also built a 1 MW PV facility with modules on over 108 double-axis trackers in Hesperia, California.
- In 1981, the Department of Energy, SCE, Los Angeles Department of Water and Power, and the CEC completed Solar One, which was the first test of a large-scale thermal solar tower, power plant. Solar One was located in Daggett, California, and produced 10 MW of electricity from 1982 to 1986.
- In 1984, the Sacramento Municipal Utility District dedicated a 1.0 MW PV facility to operate near the Rancho Seco Nuclear Power Plant south of Sacramento. It was later expanded to 2 MW.
- In 1986, the world's largest solar thermal electricity facility (more than 300 MW of solar thermal electricity) began to be built in California's Mojave Desert. The LUZ Solar Energy Generating Stations contains rows of mirrors that concentrate the sun's energy onto a system of pipes circulating a heat-transfer fluid. The heated transfer fluid produces steam, which powers a conventional turbine to generate electricity. The company had financial difficulties and was eventually sold, but the facility is still producing power today.

Continued on the next page

In 1996, another important event occurred when the Legislature passed and the Governor signed Assembly Bill 1890 (AB 1890). AB 1890 not only deregulated the state's investor-owned electric utilities (IOUs), but it also created incentives for grid-tied PV systems under the CEC's Renewable Energy Program (REP). In 1997, the Legislature passed Senate Bill 90 (SB 90), which implemented the provisions of AB 1890 and directed the activities of the CEC relating to renewable energy. The primary goal of this program was to develop a self-sustaining market for "emerging" renewable energy technologies in distributed generation applications. The Emerging Renewables Program (ERP) was created to stimulate market demand for renewable energy systems that meet certain eligibility requirements by offering rebates to reduce the initial cost of the system to the customer. For systems larger than 30 kW, the CPUC directed IOUs to work with businesses, governments, and schools to install PV "self-generation" systems. In the ten years following 1996, more than 150 MW of electricity was installed through both the CEC's and the CPUC's programs.

On August 20, 2004, Governor Arnold Schwarzenegger laid the groundwork for the CSI Program with initiation of his [Million Solar Homes Plan](#). On December 15, 2005, the CPUC adopted policies and funding for the CSI Program in D.05-12-044. The CPUC found that increasing Small Generator Interconnection Procedure (SGIP) funding for solar projects by \$300 million recognized the existing demand for incentives and the need to spur additional solar development.²⁸ The CPUC also ordered Commission staff to draft a comprehensive proposal for the CSI to be filed in that proceeding.²⁹

Continued from the previous page

- In 1993, Pacific Gas and Electric Company installed the first grid-supported photovoltaic system in Kerman, California. The 500-kilowatt system was considered the first "distributed power" PV installation.
- In 1996, the DOE and an industry consortium begin operating Solar Two, which was an upgrade of the Solar One concentrating solar power tower. Until the project's end in 1999, Solar Two demonstrated how solar energy can be stored efficiently and economically, so that power may be is produced even when the sun isn't shining; it also spurred commercial interest in power towers.

²⁸ D.05-12-044, Finding of Fact No. 3, *mimeo*, p. 11, Conclusion of Law No. 1, *mimeo*, p. 12, and Ordering Paragraph No. 1, *mimeo*, p. 12-13

²⁹ D.05-12-044, Ordering Paragraph No. 4, *mimeo*, p. 13

2. Implementation of the CSI Program

On January 12, 2006, the CPUC implemented the CSI Program in the SGIP proceeding by D.06-01-024, which created a \$2.8 billion, ten-year program to put solar on a million roofs in the state. This program changed the way the state's renewable energy incentives and rebates would be managed. The CPUC's budget for the CSI Program was set at \$2.5 billion from 2007 through 2016, to be funded through customer support.³⁰ The Commission allowed qualifying solar projects to receive CSI incentives for up to 5 MW, which was an increase from the previous 1 MW limit in the SGIP.³¹

On March 2, 2006, the CPUC opened R.06-03-004 to develop rules and procedures for the CSI Program, which had been initiated by D.06-01-024 in R.03-04-017.³² In R.06-03-004, the CPUC identified the following broad categories of issues to be addressed:

- Resolution of the cost-benefit methodologies explored in R.03-04-017;
- Ongoing management of the SGIP;
- Further development of program rules and policies for the CSI;
- Analysis of subsidies for renewable DG and measurement of renewable DG output for purposes of counting renewable DG output toward the RPS requirements of utilities.³³

On August 21, 2006, the Governor signed SB 1,³⁴ which directed the CPUC and the CEC to implement the CSI Program with specific requirements and budget limits set forth in SB 1. SB 1 directed the CEC to establish eligibility criteria for solar energy systems receiving

³⁰ The remainder was allocated to the CEC-managed solar programs.

³¹ D.06-01-024, *mimeo*, p. 14

³² In R.03-04-017, the Commission stated its intent to fund a new solar DG program and called the new program the California Solar Initiative. In D.05-12-044, the CPUC provided a total of \$342 million for solar incentives in 2006 for the CSI. D.06-01-024, the CPUC committed \$2.5 billion to CSI over ten years, established broad program principles and set forth a number of program issues that require our additional attention.

³³ R.06-03-004, *mimeo*, p. 2

³⁴ SB 1 became effective on January 1, 2007.

customer funded incentives and the CPUC to adopt a performance-based incentive program by January 1, 2008.³⁵ SB 1 also limited the CPUC’s costs for CSI to a total of \$2.16 billion and authorized incentives for only the first megawatt of alternating current generated by solar energy systems that meet the eligibility criteria.³⁶ SB 1 also required the CPUC to publish a schedule of declining incentive levels.³⁷

In D.06-08-028, the Commission modified its earlier incentive reduction schedule and adopted an incentive structure that declines only as MW levels of program participation are achieved, rather than after a specified period of time.³⁸ Each of the incentive “step” reductions adopted by the Commission is larger than 7% and is not linked to a calendar year. In D.06-08-028, the Commission also established a periodic review of CSI to evaluate the average incentive reductions per year in order to make any appropriate adjustments to incentive levels needed to ensure that the SB 1 requirements are being satisfied. Step 2 of the incentive reduction schedule has already begun, since the first 50 MW of solar applications have been reserved. From now on, incentives reserved will be paid at the Step 2 levels until Step 3 is reached.

³⁵ SB 1 mandates that by January 1, 2008, the CEC shall consult with the CPUC, local publicly owned electric utilities, and the public to establish certain eligibility criteria for solar energy systems that will receive ratepayer funded incentives. Before that time, SB 1 required the CPUC to determine which solar energy systems were eligible for incentives. SB 1 (2).

³⁶ SB 1 added Public Utilities Code Section 2851(a)(1), which states that:

The commission shall authorize the award of monetary incentives for up to the first megawatt of alternating current generated by solar energy systems that meet the eligibility criteria established by the State Energy Resources Conservation and Development Commission pursuant to Chapter 8.8 (commencing with Section 25780) of Division 15 of the Public Resources Code. SB 1, Section 7.

³⁷ SB 1 adds Section 2851(a)(1) to the Public Utilities Code and states that:

The incentive level authorized by the commission shall decline each year following implementation of the California Solar Initiative, at a rate of no less than an average of 7 percent per year, and shall be zero as of December 31, 2016. The commission shall adopt and publish a schedule of declining incentive levels no less than 30 days in advance of the first decline in incentive levels. The commission may develop incentives based upon the output of electricity from the system, provided those incentives are consistent with the declining incentive levels of this paragraph and the incentives apply to only the first megawatt of electricity generated by the system.

³⁸ The Commission also adopted and published a declining solar incentive schedule, with reductions in incentives at the earlier of MW levels of program participation or the start of each calendar year. The incentives declined in 10 steps, with incentives ending on December 31, 2016.

In light of SB 1, certain program and budgetary details set forth in D.06-01-024 and D.06-08-028 required modification, which the Commission modified in D.06-12-033. D.06-12-033 also modified D.06-01-024 to clarify that, although solar projects may be sized up to five MW under that decision, an individual project may receive incentives only up to the first MW as SB 1 mandates, commencing with applications for solar incentives after January 1, 2007.

3. Current Status of the CSI Program

In January 2007, the CPUC launched the CSI Program with a budget of \$2.16 billion for the years 2007-2016, including 1,750 MW in the mainstream incentive program.³⁹ The 1,750 MW are divided by Program Administrator and by customer class (residential and non-residential) (commercial and government/non-profit).⁴⁰ SCE has 46% of the MW goals of the program. Thus, SCE's CSI target is 805 MW, divided into 265.6 MW for residential customers and 539.5 MW for non-residential customers. For the first year of CSI, SCE has applications for 7.3 MW of solar PV power for residential customers and 74.8 MW for non-residential customers.⁴¹ Residential applications total 1,381 (18% of the total of 7,541) and non-residential applications total 211 (3% of the total) for commercial customers and 48 (1% of the total) for government and non-profit customers.⁴²

³⁹ CSI Staff Progress Report, January 2008, p. 4.

⁴⁰ CSI Staff Progress Report, January 2008, p. 7.

⁴¹ Non-residential includes 63.8 MW for commercial customers and 11.0 MW for government/non-profit customers. CSI Staff Progress Report, January 2008, p. 18. Table 4.

⁴² Id.

CERTIFICATE OF SERVICE

I hereby certify that, pursuant to the Commission's Rules of Practice and Procedure, I have this day served a true copy of APPLICATION OF SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E) FOR AUTHORITY TO IMPLEMENT AND RECOVER IN RATES THE COST OF ITS PROPOSED SOLAR PHOTOVOLTAIC (PV) PROGRAM on all parties identified on the attached service list(s). Service was effected by one or more means indicated below:

Transmitting the copies via e-mail to all parties who have provided an e-mail address.
First class mail will be used if electronic service cannot be effectuated.

Executed this 27th day of March 2008, at Rosemead, California.

/s/ Melissa Schary

Melissa Schary

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