



Comments of Southern California Edison Company  
Senate Bill 1 Eligibility Requirements Staff Report

In the Matter of: )  
Senate Bill 1 Eligibility Criteria and Conditions )  
for Incentives )

Energy Commission Docket No. 07-SB-1

**Introduction**

SCE appreciates the opportunity to provide the following comments on the California Energy Commission’s (CEC) Staff Report concerning Eligibility Criteria and Conditions for Incentives for Solar Energy Systems pursuant to Senate Bill 1 (Staff Report). SCE believes the Staff Report is thorough and well considered, and SCE supports many of the Staff’s recommendations. SCE offers the following brief comments on the Staff Report. SCE looks forward to participating in the CEC stakeholder process and working with the CEC and California Public Utilities Commission (CPUC) to implement the eligibility criteria adopted by the CEC.

**Solar Energy System Component Standards**

SCE supports the CEC Staff’s Recommendation to require IEC 61215 and IEC 61646 standards for photovoltaic (PV) modules. These rating standards are more rigorous than the PTC rating currently in use. Further, these rating standards are internationally accepted and peer-reviewed. SCE believes that performance testing and certification using the IEC test standards will provide greater confidence in the accuracy of the expected performance of systems installed under the CSI, and SCE supports the Staff’s recommendation to move towards these testing standards in the CSI.

**Solar Energy System Installation Standards**

SCE agrees that a uniform PV estimation tool should be used in both the NSHP and the CSI. SCE further supports the CEC’s principle of rational targeting of PV deployment. SCE would, however, like to gain a better understanding of how the CEC’s NSHP calculator tool

works. In particular, SCE would like to understand further the time-dependent-valuation (TDV) methodology, and the extent of the reference point's sensitivity to the final incentive.

As described in the Staff Report, the NSHP PV calculator estimates the hourly performance of the PV system over a year, and the hourly performance is weighted to account for the time-of-use value of the PV system generation to the utility system. The Staff Report states that the Time-Dependent Valuation (TDV) factors account for the "hourly variation in the value of electricity due to statewide demand *as adjusted for local distribution system factors.*"<sup>1</sup> It is not clear from this description if the "time-of-use-value" of the system refers to a statewide value or a utility distribution company specific value. SCE maintains that the PV calculator should account for the varying system peaks in each respective service territory. As the Staff Report notes, the hourly weighting of production is intended to provide an incentive for systems with installations that are optimized to address peak demand. As reflected in the most recent Self Generation Incentive Program Fifth Year Impact Evaluation Report, the investor-owned utilities experience their peak demands at different times.<sup>2</sup> Incorporating utility-specific TOU data will ensure that systems are optimized to address peak demand at the site of installation.

Further, SCE would like to understand further whether, and to what extent, the NSHP calculator may result in incentives that exceed the incentive level established by the CPUC. In this regard, the location of the reference system is critical. SCE would like to explore how sensitive the NSHP calculator is to installations for which the expected output exceeds the output of the reference system.

### **Energy Efficiency**

SCE supports the Staff Report recommendations regarding energy efficiency requirements for buildings receiving incentives under the CSI program. These requirements are consistent with SCE's belief in the benefits of integration of all customer energy management

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<sup>1</sup> Staff Report, p. 22 (emphasis added).

<sup>2</sup> SGIP Fifth Year Impact Evaluation (March 1, 2007), p. 6-5. As shown in this evaluation report, PG&E experienced its system peak in the 6:00 pm hour, while SCE experienced its system peak in the 4:00 pm hour, and SDG&E experienced its system peak in the 3:00 pm hour.

solutions – energy efficiency, demand response, and renewable energy – referenced in the loading order in California’s Energy Action Plan.

SCE recognizes these requirements will present challenges for the solar industry and our customers seeking to install solar units on their facilities. SCE plans to provide significant support to encourage and assist the industry and our customers in implementing these requirements through our energy efficiency programs, including energy audits, energy benchmarking, retro commissioning, and our new construction and retrofit energy efficiency incentives. The proposed energy efficiency requirements will result in additional administrative and implementation costs to both the CSI program and energy efficiency programs. SCE expects these additional costs to be authorized by the CPUC in current and future program budgets, and that all energy savings associated with implementation of CSI energy efficiency requirements will be attributed to SCE’s energy efficiency program goals.

#### **Other Eligibility Criteria**

SB 1 requires that qualifying solar energy systems be located on the same premises of the end-use consumer where the consumer’s own electricity demand is located. SB 1 further requires that the solar energy system be intended primarily to offset part or all of the consumer’s own electricity demand. The Staff Report implicitly acknowledges these requirements stating, “[s]ystems receiving incentives must be appropriately sized to offset no more than the actual or expected electricity of the building they serve.”<sup>3</sup>

SCE asks the Commission to clarify this requirement. The CEC can, and should, interpret these requirements to allow single, larger solar energy system installations on individual buildings with multiple related enterprises, multi-family dwelling units, condominiums, townhomes, and college campuses, provided the system is sized to offset the load of the collective participating customers, and those customers receive the benefits associated with the

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<sup>3</sup> Staff Report, p. 46.

system installation. For the purposes of determining eligibility for CSI incentives, SCE proposes that the CEC define “premises” as follows:

All of the real property and apparatus associated with a common enterprise or residential accommodation on an integral parcel of land undivided, excepting in the case of industrial, agricultural, oil field, resort enterprises, and public or quasi-public institutions, by a dedicated street, highway, or other public thoroughfare, or a railway. For purposes of CSI eligibility, “premises” shall include the real property and apparatus associated with apartment complexes, condominium complexes, town home complexes, shopping malls, and college campuses, provided those associated enterprises and residential accommodations meet the definition above. For purposes of determining maximum system size, a host customer may aggregate the loads of the customers associated with the common enterprise or residential accommodations, provided that those customers whose loads are considered in determining system size receive applicable benefits of the system installation.

SCE’s proposed definition would ensure that additional installation options would be available for customers in complexes such as apartments, colleges and malls to have a single, larger solar installation at a premise offset the demand of multiple customer accounts at the same premise. This arrangement is uniquely suited for high density, multiple customer sites in urban settings. These sites often have limited rooftop and onsite land space for solar arrays, and single customer-specific installations attached to individual meters are often not feasible. SCE notes that its proposed definition of “premises” relates solely to clarifying which installations shall be eligible for CSI incentives. SCE’s proposed interpretation does not relate to how customers will be compensated or credited for the power produced or exported to the electric grid. SCE proposes that any compensation or crediting structure be governed by applicable tariffs, statutes, and utility power purchase procedures.

In addition to ensuring the broadest program reach by facilitating installations by customers for whom participation may not otherwise be feasible, this configuration has additional benefits. First, the solar array can be installed at the most optimal location on the premises for peak energy output, taking into consideration orientation, shading, and tilt. Second, one entity can be responsible for the installation and maintenance of the array rather than each

individual customer being responsible for individual systems. Third, economies of scale in price and installation can be taken advantage of when installing a larger solar unit rather than many individual units. These three factors can lead to a higher kWh performance at a lower price in comparison to individual installations at common associated enterprises such as shopping malls and condominium complexes.

The clarification proposed by SCE is entirely consistent with mandates of SB 1. Under SCE's proposed definition, the solar energy system is located where the customers' demand is located as required by Public Resources Code § 25782(a)(5). And because the solar energy system is located at the load source, the system will in fact be offsetting the load of the accounts associated with the system, as required by Public Resources Code § 25782(a)(2).<sup>4</sup> Further, SCE's proposed clarification is entirely consistent with the spirit of SB 1, which seeks to "achieve efficient installation of solar energy systems" and "promote the greatest energy production per ratepayer dollar."<sup>5</sup>

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<sup>4</sup> Under physical principles, electrons generated will flow to and serve the nearest demand.

<sup>5</sup> Public Resources Code § 25782(b)(1).

**Conclusion**

SCE appreciates the CEC's consideration of these comments, and looks forward to participating in the CEC stakeholder process and working with the CEC and CPUC to implement the eligibility criteria adopted by the CEC.

Respectfully submitted,

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