

BEFORE THE CALIFORNIA ENERGY COMMISSION

**DOCKET**

**06-NSHP-01**

DATE April 17 2009

RECD. April 17 2009

In the Matter of Proposed Changes to the New  
Solar Homes Partnership Guidebook

Energy Commission  
Docket No. 06-NSHP-01

**SUNRUN, INC.'S COMMENTS ON THE PROPOSED CHANGES TO THE NEW  
SOLAR HOMES PARTNERSHIP GUIDEBOOK RELATING TO THIRD-PARTY  
OWNERSHIP**

**I. INTRODUCTION**

On April 10, 2009, the California Energy Commission ("Commission") issued a Notice of Staff Workshop on Proposed Changes to the New Solar Homes Partnership Guidebook ("Notice"). As noted in the Notice, the purpose of the workshop was to solicit comments from interested parties on the proposed changes to the New Solar Homes Partnership Guidebook ("Guidebook") and to solicit additional comments on other possible changes to improve the New Solar Homes Program ("Program"). Among other things, the Commission is looking for comment on how to incorporate a solar lease program and a third-party ownership model into the Program without conflicting with language in the Guidebook that requires an on-site solar system to remain on the premises on which it was installed for its economic useful life. As discussed below, because the most economical use of the on-site solar system is achieved by maintaining it on the premises on which it was initially installed, both the solar lease model and the power purchase and sale agreement ("PPA") model of third-party ownership are consistent with, and would require no changes to, the language of the Guidebook. As set forth below, the Commission will need, however, to allow for certain provisions in leases and PPAs to accommodate requirements under the Federal tax code. These provisions should not pose a problem for the Commission.

SunRun, Inc. ("SunRun") is a retail supplier of residential solar power systems that provides affordable, hassle-free solar electricity to homeowners. By owning, operating, and maintaining these on-site solar systems, SunRun offers its customers the option of solar generated electricity without the burdensome capital expenses and effort associated with solar panel acquisition, installation and maintenance. SunRun's business model typically involves an eighteen-year residential solar PPA under which its customers purchase the solar electricity produced on their roofs. The electricity under these agreements is purchased at fixed rates, which generally provides its customers with significant savings over retail residential prices. Customers are provided free service and repair and have flexible end-of-term and home sale options. Additionally, SunRun provides its customers an annual, money-back generation performance guarantee, meaning its customers only pay for electricity actually produced from the system on their roofs. SunRun pioneered the residential solar power purchase agreement and is among the five largest residential solar companies in the country today.

## **II. ON-SITE SOLAR SYSTEMS, WHETHER OWNED BY THE RESIDENT OR A THIRD PARTY, ARE MOST LIKELY TO BE MAINTAINED ON THE PREMISES FOR THE ECONOMIC USEFUL LIFE OF THE SYSTEM**

Economic realities encourage third-party owners under the solar lease model and PPA model of third-party ownership to maintain their systems at their initial sites for their economic useful lives. Certain tax regulations, however, require the initial terms of leases and PPAs to be shorter than the economic useful life of the on-site solar system. As shown below, the shorter terms are driven by the tax code and will not result in the removal of on-site solar systems from residences before their economic useful lives expire.

The ability of a third-party owner to claim the solar investment tax credit and depreciate the solar facility for tax purposes (together, the “Tax Benefits”) is key to the success of the third-party ownership model. Many homeowners do not have sufficient federal taxable income to make use of the solar investment tax credit, particularly in light of an \$8,000 tax credit currently available to qualified first-time home buyers. In addition, homeowners, by definition, cannot benefit from depreciation deductions applicable to business-related assets. In order to be eligible for these tax benefits, the third-party owner must qualify as the owner for tax purposes (the “Tax Owner”). To qualify as the Tax Owner of an on-site solar facility, the initial term of the PPA or lease cannot approach the entire economic useful life of the on-site solar facility.<sup>1</sup> Tax lawyers are generally comfortable with initial contract terms of 15 to 20 years in length.

The shortened length of the initial term, however, would not dictate that a third-party owner would remove the on-site solar system before the end of its economic useful life. In fact, there are strong economic incentives for third-party owners to maintain their systems at the sites on which they are installed. For instance, the value of the on-site solar system at the place it is installed always exceeds its trade value on a secondary market. The process of removing, shipping, and reinstalling a solar facility is extremely costly. The preference of third-party owners therefore will always be to keep the system in place, if feasible. As a consequence, third-party owners would most likely seek to renew PPAs and leases once their initial terms end. Similarly, under their existing PPAs with SunRun, homeowners have the option of renewing their PPAs for successive one-year terms or purchasing the on-site solar system at a fixed price. If the customer opts for renewal, the new terms can easily be tied to the prevailing market price at the time so as to ensure that the resident would receive a fair price without negotiation. Unless the homeowner purchases the solar facility or asks SunRun to remove it, the default option is for the PPA to renew annually for as long as the solar facility remains economically viable. As renewal is already the default option under its PPAs, SunRun would support regulation requiring that PPAs, at the end of their initial terms: (i) renew by default and, as an alternative; (ii) provide a fixed price at which the homeowner may purchase the on-site solar system. Together, these requirements will ensure that the on-site solar system can stay in place for the remainder of its economic useful life.

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<sup>1</sup> Rev. Proc. 2001-28, 2001-19 I.R.B. 1156

Although owners are more likely to maintain on-site solar systems in place and seek to renew their leases or PPAs, there is a possibility that they might remove their systems after the initial term of a lease or a PPA. The risk that third-party owners would remove the on-site solar system, however, is no different than the risk that the homeowner would remove the system before the expiration of its economic useful life. Some homeowners who are not motivated by simple economics may replace their solar facility in 15-20 years irrespective of whether or not the first homeowner purchased the solar facilities outright or entered into a contract with a third-party owner. Such a risk was accepted when the Program was created and should not now be used as a barrier to third-party ownership under the Program.

### **III. ADDITIONAL BENEFITS OF THIRD-PARTY OWNERSHIP OF RESIDENTIAL SOLAR POWER SYSTEMS**

For several additional reasons, the Commission should explicitly include both the solar lease model and the PPA model of third-party ownership in the Program. First, high initial capital costs prevent all but the wealthiest of citizens from installing solar power systems on their homes. By allowing companies like SunRun to absorb these initial costs, third-party ownership provides opportunities for low and middle income families to enjoy the benefits of a residential solar power system. As set forth above, third-party ownership also allows low and middle income families to benefit from the 30% Federal investment tax credit and accelerated depreciation available to newly installed solar energy systems.

Second, when third parties own and operate solar systems, particularly under the PPA model, the incentives to operate the systems at maximum efficiency are aligned to the benefit of the homeowner, the system owner and the ratepayer who funded the installation rebate under the Program. In short, third-party-owned systems are not sold and installed primarily to take advantage of available tax credits. Third-party-owned systems are placed and sized properly and are operated and maintained to achieve maximum output, which increases savings to customers and profits to the owner of the solar system. Third-party owners also maximize the number of clean kilowatt-hours of energy that are produced per dollar of subsidy.

Finally, third-party ownership permits homeowners to benefit from increased economies of scale. A single homeowner has no market power when negotiating the purchase, installation and maintenance of a single solar power system. Companies like SunRun that purchase multiple systems, however, do benefit from their larger market share. These companies can typically negotiate the price of the systems and receive volume discounts. As a company purchases more systems, the marginal cost of the solar systems and the associated installation, operation and maintenance costs of the systems all decrease. These increased savings can then be passed along to customers, further reducing the cost of residential solar power systems to homeowners.

## V. CONCLUSION

The benefits of the PPA model of third-party ownership are proven and will help achieve California's goals under the Program. According to greentechmedia, "the Commercial PPA segment has not only outstripped conventional commercial PV sales, it has also expanded the market — acquiring new customers that would not have purchased solar hardware."<sup>2</sup> Data from the California Public Utilities Commission suggests that, in just one year since SunRun pioneered residential third-party ownership, over 20% of new residential solar facility rebate reservations indicate the system will be owned by a third party. Excluding this model from the Program would prevent a large cross section of California residents from exploiting this advantageous option. Accordingly, SunRun respectfully requests that the Commission explicitly include the PPA model and solar lease model of third-party ownership in the Program. As shown above, these models are consistent with the Program as is and would not conflict with language in the Guidebook that requires an on-site solar system to remain on the premises on which it was installed for its economic useful life. By encouraging the PPA model of third-party ownership on new residential homes, California can take a significant step towards meeting its renewable energy goals.

Respectfully submitted this 17th day of April, 2009,

  
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<sup>2</sup> John Guice & John King, Solar Power Services: How PPAs are Changing the PV Value Chain, greentechmedia, Feb. 14, 2008, available at <http://www.greentechmedia.com/reports/research-report-solar-power-services.html>.