BEFORE THE ENERGY COMMISSION

OF THE STATE OF CALIFORNIA

Preparation of the 2008 Integrated Energy Policy Report Update and the 2009 Integrated Energy Policy Report	Docket No. 08-IEP-1
Implementation of Renewables Portfolio Standard Legislation.	Docket No. 03-RPS-1078

COMMENTS OF THE SOLAR ALLIANCE ON 2009 IEPR - FEED-IN TARIFFS

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Pursuant to the Notice of Staff Workshop: Renewable Energy "Feed-In" Tariffs ("Notice"), the Solar Alliance submits these comments addressing the workshop topics and draft consultant report "California Feed-in Tariff Design and Policy Options Report" ("Draft Report") included in the Notice. The Solar Alliance appreciates the opportunity to provide these comments to the California Energy Commission ("Commission").

The Solar Alliance is a state-focused association of the world's leading solar PV manufacturers, integrators, installers and financiers dedicated to accelerating the deployment of solar electric power in the United States. The Solar Alliance and its members have a strong interest in the adoption and implementation of far-reaching policies and programs that will accelerate the movement toward a low-carbon economy and stimulate the development and use of zero-carbon, renewable energy technologies such as solar PV. To that end, the Solar Alliance seeks to help legislators, regulators and utilities make the transition to solar power by providing technical and policy expertise that is in the best interest of residential, commercial and government customers and Americans as a whole. The Solar Alliance works closely with state and local solar advocates, seeking to form coalitions with corporate, grass roots, and academic

institutions, as well as with local governments that advocate solar energy, so that the solar community may speak with one stronger voice. Current members of the Solar Alliance include American Solar Electric, Applied Materials, Borrego Solar, BP Solar, Conergy, Dow-Corning, , Evergreen Solar, First Solar, Iberdrola Renewables, Kyocera, Mainstream Energy, Mitsubishi Electric, MMA Renewable Ventures, Oerlikon Solar, Open Energy, Sanyo, Schott Solar, Sharp Solar, SolarCity, Solaria, Solar Power Partners, SolarWorld, SPG Solar, SunEdison, SunPower, Suntech, Tioga Solar, Trinity Solar, Uni-Solar and Xantrex[1].

I. COMMENTS

California will need to develop all of its solar potential as well as other renewable generation technologies to meet its Renewable Portfolio Standard ("RPS") goals. The Solar Alliance supports all solar technologies, including large-scale PV solar and solar thermal technologies. However, utility planners tend to overlook solutions that do not fit traditional practices, and the bias in resource planning toward large-scale solutions ignores significant opportunities in distributed solar resources. Some of the specific benefits of distributed PV are:

- PV can be strategically sited in load pockets to strengthen the grid and increase community energy security in case of transmission failure.
- Distributed PV does not require transmission interconnection or upgrades because it is sited on the distribution system.
- Distributed PV can help meet peak demands at substations and on distribution feeders, thus avoiding or delaying the need for distribution system upgrades.
- PV costs are falling and will fall further as significant, dependable demand for modules drives further manufacturing investment and economies of scale.

[1] The comments contained in this filing represent the position of the Solar Alliance as an organization, but not necessarily the views of any particular member with respect to any issue.

- PV provides a reliable and secure domestic energy resource for decades without the fuel cost volatility of conventional generation.

For these reasons, the Solar Alliance believes that through a standard offer contract or feed-in tariff, solar technologies have an opportunity to contribute significantly to achieving RPS goals.

A. The Solar Alliance Supports Expanding the Feed-In Tariff Up to 20 MW

Currently, California has effective programs for very small or very large solar generators. The California Solar Initiative ("CSI") provides incentives for systems that serve on-site load up to one megawatt. The majority of these systems are net metered. Most of the capacity contracted by the utilities to meet California's RPS have been for projects larger than 20 MW, including a number of projects that are hundreds of megawatts in size.

There is a programmatic gap between the 1 MW upper limit of the CSI and the typical larger-than-20MW RPS project that could yield hundreds, if not thousands, of megawatts of solar generation to meet the RPS. In the City of San Diego alone, studies have identified more than 800 MWs of potential rooftop PV generation.[2] Similarly, in a recent study for the Renewable Energy Transmission Initiative ("RETI") process, Black and Veatch identified 27,500 MWs of potential distributed PV generation next to existing electrical substations.[3] As a point of reference, the California Independent System Operator ("CAISO") typically sees daily peak demand between 30,000 and 40,000 MWs. Thus, these projects ranging up to 20MW in size may be an excellent opportunity to bring significant, additional renewable generation on-line without

[2] Potential for Renewable Energy Generation in the San Diego Region, Table 2.9: GIS Analysis Results for SD City Buildings, August 2005. Available at http://www.renewablesg.org/

[3] See RETI Phase 1B - Draft Resource Report, Black & Veatch, August 2008. Available at http://www.energy.ca.gov/reti/documents/index.html

transmission upgrades and where new power supplies are most needed and most valuable.

This policy gap is exemplified by Southern California Edison's ("SCE") recent application (Application 08-03-015) to the California Public Utilities Commission ("CPUC") to install 250 to 500 MW of solar systems in the 1 to 2 MW range on customer rooftops. The application both demonstrates the benefits of increasing the amount of distributed generation inside distribution networks and highlights the fact that California currently does not have a good policy tool to develop this market. The Solar Alliance believes that expanding the feed-in tariff to projects up to 20 MW can be the policy tool that bridges this current programmatic gap and helps the state meet its ambitious RPS goals.

However, expansion of the feed-in tariff to projects beyond 20 MW should be carefully considered given the market experiences in other countries. Two variables have vexed feed-in-tariff markets with regard to larger plants. The first is setting the tariff level high enough to encourage market development while ensuring its popularity does not overwhelm available budgets. Germany, Spain and Ontario found themselves in the latter category and have been forced to modify or even temporarily halt their programs. Policy mechanisms that link market penetration to a long-term, transparent tariff rate digression may be able to address this issue.

B. The Solar Alliance Supports Option 6 with Minor Variations

Option 6 is a feed-in tariff that could be established promptly without condition and be available statewide to generators up to 20 MW in size, helping to address this policy gap in the current RPS solicitation process. It would offer cost-based, long-term prices differentiated by size and technology. This feed-in tariff should be a policy that compliments both the current CSI/net metered program (for systems less than 1 MW) and the annual RPS solicitation process.

While the draft consultant's report suggests no specific methodology for determining the technology-specific costs that would form the basis for the tariff itself, many of our member companies involved in building projects of this size are highly experienced with modeling the costs associated with various project types. We stand ready to assist the Commission in developing solar tariffs should this approach be adopted.

We also understand that the natural tendency of the Commission will be to adopt a modified version of Option 6 that uses a value-based approach relying on the existing and well-known methodologies based on the Market Price Referent ("MPR"). The Solar Alliance believes that if this approach is taken and the costs and benefits of feed-in tariffs are calculated correctly, feed-in tariffs will bring down costs over time and limit ratepayer exposure. Renewable, wholesale distributed generation ("WDG")[4] projects that will be able to utilize the feed-in tariffs promise to provide ratepayers with significant locational benefits compared to large renewable projects that typically must be sited in remote locations where large tracts of land are available. The locational benefits of WDG, which can result in reduced costs, include: (i) increased capacity of distribution transformers at the generation site and at the substation level during peak periods, which reduces line losses and increases transformer life; (ii) avoided distribution system upgrades when DG is located on areas of the distribution grid (or feeders) that are capacity constrained; (iii) avoided transmission system upgrades that would otherwise be required to access remote renewable resources that are located far from load; (iv) meeting local resource adequacy needs; (v) reducing congestion costs; and (vi) reducing transmission and distribution line losses.

[4] "Wholesale distributed generation" (WDG) projects are distinguished from traditional "distributed generation" (DG), which generally refers to small, retail generation projects sized to serve a specific on-site load, with power flowing on to the utility distribution system only to the limited extent that on-site generation happens to exceed on-site load.

Importantly, these economic benefits are not reflected in the current MPR, which is the "brown power" pricing benchmark currently applicable to small renewable generation projects developed under the CPUC standard offer contracts (up to 1.5 MW) authorized by AB 1969. To date, the MPR has been designed, like the larger RPS program, with a focus on large generation projects that deliver many tens or hundreds of megawatts of wholesale power into the bulk transmission system. Today, the MPR is calculated as the cost of a 500 MW gas-fired combined-cycle power plant sited in California and delivering power to the load center on the CAISO's high-voltage transmission system.

The use of a feed-in tariff structure for small, renewable WDG up to 20 MW would require the Commission to re-examine and modify the pricing within the feed-in tariff that is applicable to WDG projects. This is exemplified by the fact that very few contracts have been signed under the existing AB 1969 standard offer contracts, and the Solar Alliance is not aware of any of these contracts being signed for solar technologies.

In particular, as discussed further in these comments, the Commission will need to include in the pricing for the tariff/standard contracts the real and quantifiable benefits that ratepayers derive from the favorable location of this new renewable generation. The Commission should not simply assume that the pricing of power from small renewable generators should use the same "brown power" benchmark as large RPS projects interconnected to the CAISO's high voltage transmission grid. By interconnecting on the distribution system close to loads, renewable WDG can avoid the additional costs incurred in moving power from the MPR's theoretical 500 MW combined-cycle plant to load.

The pricing applicable to WDG projects will need to be modified in several steps to include the locational benefits of WDG projects. In its previous filing to the Commission

submitted July 11, 2008 along with Greenvolts and the California Solar Energy Industries Association, the Solar Alliance went into great detail about how and why the MPR should be adjusted when applied to WDG projects. The Solar Alliance made the following recommendations:

1. The CPUC should incorporate MRTU line loss and congestion costs into the MPR and into MPR-based prices for feed-in tariff projects up to 20 MW, in conjunction with either the 2009 or 2010 MPRs.

2. Value should be given to small generators located on the distribution system that avoid the distribution line losses specified in the utilities' Wholesale Distribution Access Tariffs ("WDATs").

3. Small renewable generators that can allow the utilities to avoid investments in transmission and distribution ("T&D") facilities should be valued accordingly.

II. CONCLUSION

The Solar Alliance appreciates the opportunity to provide these comments addressing issues regarding feed-in tariffs. The Solar Alliance believes that small renewable generation can contribute meaningfully to RPS procurement if tariffs or standard contracts are put in place for each IOU which addresses the needs of small generators up to 20 MW for a consistent, simple, and transparent contract process that also recognizes the benefits wholesale distributed generation can bring to the grid.

Respectfully submitted this October 10, 2008 at San Francisco, California.

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