DOCKET
02-REN-1038/03-RPS-1078
DATE JAN 22 2007
RECD. JAN 22 2007

CALIFORNIA ENERGY COMMISSION

DOCKETS:
02-REN-1038
03-RPS-1078

EXISTING RENEWABLE FACILITIES PROGRAM GUIDEBOOK – STAFF DRAFT

COMMENTS OF

SUNRAY ENERGY, INC.

JANUARY 22, 2007

Eric Wills
President
Sunray Energy, Inc.
22590 Green Mount Place
Yorba Linda, CA 92887
(714) 473-3058
ewills@sunray.net

January 22, 2007

California Energy Commission
Re: Docket No. 02-REN-1038
and Docket No. 03-RPS-1078
Docket Unit, MS-4
1516 Ninth Street
Sacramento, CA 95814-5504

Dear Commissioners:

Sunray Energy is the owner and operator of two Solar Electric Generating Systems ("SEGS") located in Daggett, California, and provides 44 megawatts of parabolic trough thermal electric capacity to the California market. The SEGS I and II facilities have provided reliable and environmentally beneficial electric generation to Southern California residents for almost two decades. Building and maintaining solar facilities that represent the gold standard in solar technology is extremely expensive - the SEGS I and II plants cost over $150 million to construct. As a consequence, the incentive payments provided by the Commission play an important role in keeping these two facilities on-line and providing contributions to the State's energy needs.

Sunray appreciates the opportunity to provide the following comments on the Commission's proposed revisions to the existing renewable energy facilities program and guidebook.

1. Need For Continued Incentive Payments For Existing Renewable Facilities

Contrary to the conclusions in the Staff Draft Guidebook for the Existing Renewable Facilities Program ("Draft Guidebook"), continued incentive payments are of critical importance to existing facilities such as SEGS I and II. Existing facilities such as SEGS are far more threatened today than when the State's renewable energy laws were enacted. This is because the company's contract prices have remained relatively unchanged while all other costs have greatly increased. Thus, the CEC incentive payments that were helpful in prior years are essential today.

One of the reasons that the incentives are so essential is that Sunray's costs of operating have increased by more than 50 percent in just 4 years, while its energy revenues have actually declined

over the same period. In fact, this is the case with most long-term power purchase contracts, where costs increase over time but the energy payments remain the same or decrease. However, in Sunray's case the problem is far more severe because its energy payments are extremely low. Sunray's current time-period weighted average electricity rate of 3.1 cents per KWh (2005) is far below market, and far below the energy price received by most other projects. This low energy price makes it almost impossible for Sunray to pay for needed repairs, fuel, labor, employee costs, insurance, and the other ongoing costs of maintaining an aging physical plant.

The incentive payment received by Sunray under this program each year is a lifeline. These payments provide the only significant source of funds available to make long-term plant improvements and essential repairs to the SEGS I and II facilities.

At the present time, the SEGS I and II facilities receive approximately $400,000/yr. from the CEC Renewable Energy Investment Program. Since inception of the CEC program, the SEGS I and II facilities have received approximately 1 percent of all funds distributed to existing Tier 1 facilities.

2. Use of Incentive Payments

Sunray has used the incentive payments it receives from the CEC to make efficiency and reliability improvements at its two solar facilities. These improvements would not be economically feasible or financially possible absent these payments.

Sunray believes the equipment purchases and improvements it has made at its two solar facilities due to the CEC program have directly contributed to the goals of the CEC program, namely, to enhance the environmental value and reliability of the electrical system. Although the SB 1250 speaks in terms of providing incentive awards to facilities providing environmental benefits or reliability benefits, the Sunray facilities provide both. Sunray's 44 MWs of installed solar thermal capacity not only helps improve the air quality of Southern California, by displacing fossil fuels, but also serves to provide reliable peak period electrical generation that is needed by Southern California consumers.

As a result of the CEC incentive payments, Sunray has been able to complete turbine overhauls, make vacuum pump repairs to help improve power block efficiency, make cooling tower and boiler repairs to improve efficiency, purchase computers and new software to control solar fields, purchase additional heat transfer fluid to help reduce solar field freezing in the winter, develop and purchase a mirror support system to reduce mirror breakage in the field, purchase test monitoring equipment to improve the solar field performance, and purchase a reverse osmosis unit to reduce water and chemical use. In 2006, Sunray purchased mirrors and heat collection tubes for the first time in twenty years. Clearly, these CEC payments have been extremely helpful in keeping Sunray operational and in assuring that these facilities remain in operation.

3. Primary Problems Presented By The Draft Guidelines

Some of the proposed changes to the Draft Guidelines for existing renewable energy facilities will not encourage maximum electricity production from existing renewable energy facilities, and if retained will in fact act to decrease electric generation from these existing resources. Further, some of the proposed changes would embroil Commission staff in contentious and time consuming efforts to differentiate between different facilities in an effort to ascertain their market value and total contract price.

Although SB 1250 directed the Commission to make incentive awards to existing renewable facilities based on a number of factors, it left to the Commission's discretion how those factors should be weighed, considered and used. Among the factors listed for consideration are the cumulative value of prior awards, the value of any tax credits received, prices received by similar facilities, the contract price for capacity and energy, the likelihood that an award will make the facility competitive and self-sustaining within the 2007-2011 period, and the like. The clear purpose of these listed factors was not to needlessly encumber the Commission's review process but rather to provide a general framework for determining public benefit from this program. As SB 1250 states, these factors are to help "determine the value of an award to the public relative to other renewable energy investment alternatives." (SB 1250, Section 10(e)).

Thus, Sunray urges the Commission to avoid overly detailed and prescriptive approaches to its award decisions. The Commission should also weigh the many factors listed and avoid giving undue weight to any one factor.

Sunray is most concerned about the proposal to change the incentive payment eligibility requirements for existing facilities by considering, for the first time, capacity payments. Sunray agrees with the California Biomass Energy Alliance ("CBEA") that this would wholly undermine the achievement of the CEC's goals. This is because factoring in capacity payments to determine incentive payments could have the effect of reducing payments or disqualifying certain renewable facilities from receiving incentive payments. Further, the Draft Guidelines appear to improperly treat capacity payments received by a facility as equivalent to energy payments, when in fact they serve very different purposes. Importantly, it is the level of the energy price received by a renewable facility that is key to its electricity production decisions.

The consideration of capacity payments ignores the separate purposes served by energy and capacity payments. While it may be appropriate to consider the total payments (energy plus capacity) received by an owner/developer for a proposed new renewable energy facility, since the question is whether the total income stream will be sufficient to lead to project development, a very different analysis should be applied for existing renewable facilities. For existing renewable facilities, the relevant inquiry is whether the total energy payments received by the project are sufficient to encourage maximum renewable energy production from that facility. Maximum electricity production assures that the State receives the most value possible from existing generation resources.

The capacity payment, which compensates the facility for the cost of constructing, maintaining and making available the basic physical plant during peak periods, bears little or no relation to maximizing electricity production. Thus, for example, a renewable facility receiving a relatively high capacity payment and a very low energy payment will have little or no economic incentive to produce electricity at any higher levels than the power purchase agreement requires (e.g. peak period production). In fact, the incentives run just the other direction, since high levels of electricity production will cause the physical plant to wear out sooner and increase plant maintenance and other variable costs. Maximizing electricity production under low energy price contracts is also discouraged

since putting more demands on the physical plant could cause more outages and other physical plant problems, thereby endangering the capacity payments, which are essential to the continued existence of most projects.

Additionally, low energy prices that in Sunray's case do not even cover the SEGS I and II variable operating costs, leaves no revenue for essential repairs, technological upgrades and system improvements. These low prices provide little or no incentive for a project owner to make facility changes that increase energy production since that owner will receive no financial payback on that investment for the 10 to 20 year life of the power purchase agreement.

Many existing contracts for renewable energy facilities in the State do not encourage maximum electricity production. The contracts may have relatively high capacity payments, which acted to encourage the initial development of the projects, but have very low energy rates and other punitive provisions that actually discourage electricity production above required levels. As a consequence of this unfortunate anomaly, the most beneficial role that the CEC program for existing renewable resources can play, and has played in the past, is to provide incentive payments to existing renewable facilities that have low energy price contracts. These payments provide existing renewable facilities with an economic incentive and ability to increase electricity production, make upgrades and maximize the efficiency of their facilities through technological innovations and improvements. This is certainly true in the case of Sunray, where the Commission's awards have provided the only significant source of funds available to make facility improvements that have directly led to additional generation and enhanced reliability at its two solar facilities.

The CEC should eliminate any requirement that capacity payments must be specifically considered for incentive payments to individual existing renewable facilities. Although the Commission may choose to consider capacity payments in its overall analysis of the existing renewable facility sector, this factor is not relevant and should not be used to evaluate each and every facility considered. Such an approach would be counterproductive and a waste of both Commission and facility time and resources. More importantly, it would greatly harm the Commission's program and renewable facilities such as Sunray's if the consideration of capacity payments served to limit payments to generating resources that need these payments to give them an economic ability to

maximize electricity production capability. If capacity payments become a project specific eligibility factor, and thus act to reduce payments or disqualify certain low energy price facilities from receiving an incentive award, it will only serve to discourage electricity production from existing renewable resources. Thus, the proposed Guidebook change would do far more harm than good.

The last thing the CEC should do is discourage electricity production from existing renewable facilities that are already contributing to the State's energy resource base, have existing transmission facilities and interconnections, and are providing important environmental benefits to the State.

In fact, using incentive payments to preserve and enhance electricity production from existing and proven renewable energy projects constitutes the State's "low hanging fruit" and should most certainly be given a high priority. In most cases these renewable resources are among the lowest priced renewable resources available to consumers and have a proven record of reliability.

Should the CEC consider keeping the proposed requirement to specifically consider capacity payments under each and every contract, it should first assess the energy and environmental effects of that decision: it should measure how much renewable energy production will be lost, what fossil fuels will have to be brought on line to offset that lost renewable production, and what the environmental effects of those offsets will be on the State. Just on an intuitive basis, disqualifying <u>any</u> existing renewable facility based on its capacity payment would be extremely harmful to the State's energy and environmental goals.

Although the existing low energy price contracts for relatively high operating cost renewable energy facilities are not a problem created by the CEC, certainly the incentive payments have played a key role in moderating these adverse effects. The incentive payments encourage more electricity production and enable facilities such as Sunray's to invest in technological improvements and upgrades. When facilities such as Sunray cannot even recoup all of their variable operating costs through the energy payments they receive the incentive payments provided by the CEC are the only significant source of funds available for cost-effective efficiency improvements, equipment modernization and repairs.

3. The Target Price Cap Should be Increased for Facilities with Extremely Low Energy Price Contracts

The target price for discounted contracts should be consistent with the target price established for the other solar and biomass facilities; however, the cap should be 2 cents/kWh instead of 1 cent/kWh. Sunray's current time-period weighted average electricity rate of 3.1 cents per KWh (2005) is far below market, and far below the energy price received by most other projects. This energy price is more than 50 percent less than the energy payments that are already recognized to be below market. Thus, an increase in the cap is fully warranted for the handful of facilities like Sunray that have extraordinarily low energy prices. With a 2 cents/kWh cap, SEGS I and II would still be well below the target price and below what most others, if not all, participants receive from the IOU *without* SB 1250 funds.

Sunray believes the 2 cents/kWh cap is consistent with the intent of SB 1038, SB 1250 and the goals of the Energy Commission. For example, in 2006 Sunray purchased replacement mirrors at its facility for the first time in 20 years. Sunray purchased enough mirrors to replace approximately 50 percent of the broken mirrors in its solar fields for SEGS I and II. With a 2 cents cap and a 5 year funding plan, however, Sunray would be able to hire additional employees to implement solar field repairs and also procure the remaining 50 percent of the mirrors needed to repair all remaining broken mirrors. These new mirrors and repairs would improve Sunray's efficiency and significantly increase its solar production.

4. Sunray Endorses the CBEA Comments

Sunray also endorses the comments advanced by the CBEA and the Biomass Industry. It is essential that the CEC continue to support of these existing renewable resources. Along with solar, these biomass facilities are cost-effective, reliable, have contributed to the State's energy base and environmental goals for many years. They also represent proven technologies, and make up a large share of the peak period renewable generating capacity in the State.

5. Conclusion

Sunray Energy has been a reliable supplier of solar power to the California energy market for the past twenty years. Several recent developments to the energy markets have provided challenges for SEGS I and II, but targeted funding for specific projects will enable Sunray to meet those challenges and continue to supply renewable energy for years to come. Sunray is very appreciated of the support the CEC has provided throughout the years. We ask that the Commission not only continue with funding in the amount of previous years, but that the CEC increase its funding to the SEGS I and II facilities so that significant production gains can be achieved. Sunray would be glad to certify or otherwise demonstrate that all award funds received from the CEC are dedicated to making repairs and improvements at SEGS I and II that serve to enhance the efficiency and reliability of these facilities.

Respectfully submitted,

Eric Wills
President
Sunray Energy