



New Jersey Renewable Energy Solar Market Transition Straw Proposal

New Jersey Board of Public Utilities, Office of Clean Energy

May 25, 2007

By Order dated January 19, 2007, In the Matter of the Renewable Portfolio Standard, Docket No. EO0600744, the Board initiated a stakeholder process regarding Alternative Compliance Payment (ACP) and Solar Alternative Compliance Payment (SACP) levels for energy years 2009 and 2010 or longer. **This is an Office of Clean Energy (OCE) staff straw proposal. OCE has prepared and now circulates this straw proposal for the consideration and comments as part of the ongoing stakeholder process regarding this matter.**

The distribution of this staff straw proposal is not meant in anyway to discourage or pre-empt comments on any aspect of this proposal or the overall solar transition including all of the solar transition models as described in all the solar transition white papers or the Summit Blue Reports. OCE emphasizes that any implementation of the straw proposal or any other approach for solar market transition or modification will require review, including legal, and consideration by the Board, of changes to existing policies, procedures and regulations.

While this staff straw discusses rebates, it should be re-emphasized that rebate commitments can only be issued up to the percentage of 2005 through 2008 funding levels set by the Board for the Renewable Energy programs and that the Board approves for the 2007 and 2008 Customer On-Site Renewable Energy program specifically. There are no guarantees that a Customer On-Site Renewable Energy application for any solar project in a queue will receive a rebate. Rebates can only be provided if and when funding levels and budgets are approved by the Board for the Customer On-site Renewable Energy program.

This proposal has been informed by the Renewable Energy Committee working group that has helped to develop solar transition models since the summer of 2006, the ACP committee's advice developed during the fall of 2006, the solar transition presentations, the solar transition meetings with the public and business community stakeholders, the Summit Blue Reports, the input during numerous renewable energy committee meetings and various stakeholder comments. Comments should be submitted in terms of how the other models

proposed –auction, hybrid tariff, feed-in tariff, commodity, and underwriter - would advance or inhibit the overall goals set forth by the Board and expressed in this staff straw proposal.

This straw proposal establishes a flexible platform for supporting growth of the markets required to meet the Renewable Portfolio Standard goals and solar specific targets. This platform builds upon the foundation of the current program design and market conditions, enabling a relatively smooth transition. The straw proposal also provides the basis for further evolution, such as the adoption of a tariff based system or an underwriter system or any other modification if these approaches can be and then are implemented.

Note that proposed changes to Federal Tax Incentives would have significant impacts on customer economics, and would cause significant changes in some of the program design parameters that are identified below. For example, an increase to the Federal Tax incentive for residential systems would be likely to reduce either the proposed SREC qualification life or 2009 to 2012 rebate levels.

The changes recommended in this straw proposal can build upon the existing program structure in 2008 and be incorporated directly in the Clean Energy Program design for the 2009-2012 time period. The proposed changes are intended to foster continued growth of the New Jersey solar industry. The goal of the proposed program design is to encourage sustained orderly development while gradually lowering the reliance on rebates and other forms of market support.

Several definitions related to SRECs are helpful to clarify the proposal outlined below:

- **SREC vintage** is the period of time in which an SREC can be traded – currently SRECs can only be traded in the energy year in which they are created (with a 3-month true-up period after the end of the energy year).
- **SREC qualification life** is the number of years a system can create SRECs. Once the SREC qualification life is reached the facility will no longer be eligible to generate SRECs, but will be eligible to generate Class I RECs that can be traded in the Class I market or the voluntary market.
- **Community-based Solar Systems** is where residents or small businesses “buy” into a centrally located project as opposed to individual home installations.

To effectively build upon the past program and market accomplishments, the straw proposal includes all market segments as follows:

1. Market Support for ≤10 kW Systems

This market segment includes residential and small commercial or public systems with 10kW or less of rated capacity. These systems have the highest installation cost per kW installed or kWh generated. As noted by Summit Blue the installed cost differential between these systems and larger systems is roughly \$1000/kW.

OCE proposes that this market segment continue to receive a performance based rebate (to be determined as part of the 2008 budget and the 2009 through 2012 CRA proceeding). These proceedings would address funding and possible rebate levels with steady reductions through 2012.

The OCE recommends that any future rebate offers be structured as blocks of capacity that terminate at that rebate level when a specific MW cap is reached. The rebate would then automatically move to the next block level in the next calendar year. For example, rather than having a rebate level that remains in place for a specific period of time, the rebate level would remain in place until a pre-set level of capacity (MW) was reached. A block structure would eliminate queues and better align funding levels with achievement of program goals. A possible block structure would look like the following table:

MW Block	Rebate (\$/W) ¹	CY	CORE Budget
7	3.00	2009	\$22.3 M
6	2.25	2010	\$13.6 M
8	1.50	2011	\$12.6 M
9	0.75	2012	\$6.7 M

In addition, the block would set the annual Customer On-Site Renewable Energy budget for this market segment. Once the block is achieved in that budget year the program would not take anymore rebate commitments. As addressed above applicants in queue are not guaranteed a rebate. A rebate commitment can only be made if the Board has approved a funding level for the renewable energy program and an annual budget for the Customer On-Site Renewable Energy Program.

Participants in this market segment would be eligible to receive SRECs tied to the new SACP values. The SREC qualification life for new projects in this market segment is proposed to be 10 years. The initial design is to provide sufficient program support through the combination of rebate and ten years of SRECs to result in customer economics equivalent to an approximate 12 year payback.

¹ The rebate will be based on the expected performance of the installed system.

The customer economic calculations should reflect all other benefit streams, such as federal tax credits, and electricity savings that are produced by the project.

Past participants in this market segment (systems installed in 2001 through 2008) would also be eligible for a five year SREC qualification life. Another alternative that OCE would appreciate comment on, is setting a SREC qualification life for each year of the program so that systems installed in prior years receive the funding necessary to pay for the system but not receive a windfall from higher SREC levels that are likely to occur if this straw proposal were to be implemented.

In addition, the OCE staff will be exploring two program modifications that are expected to help reduce market costs.

- a. Developing a solar program for new homes construction within an overall approved development project to achieve an economy of scale. It is anticipated that these homes will be required to achieve an Energy Star rating, participate in a residential demand response program with advanced meters and be in an area designated for growth. OCE will assess whether any changes to existing rules, policies or procedures are required to implement this policy, including the appropriate program support; and
- b. Developing a Community based system to achieve an economy of scale in this market segment. OCE proposes that any Community based solar system interconnected to the distribution system of a NJ utility be eligible to receive SRECs regardless of whether the power is used on a customer's site or elsewhere. OCE will assess whether any changes to existing rules, policies or procedures are required to implement this policy, including the appropriate program support.

2. Market Support for > 10 kW Private Systems

This market segment includes all private systems with greater than 10kW of rated capacity. It is proposed that starting in 2009, new participants in this market segment will receive program support through the revenues generated by the market rate SREC based on the new SACP value. The SREC qualification life for new projects in this market segment is 8 years. The initial design was to set the SACP so that a typical project's internal rate of return accounting for the SREC and other expected streams of revenues and costs are approximately equal to a 12 year payback.

Participants in this market segment receiving a rebate, i.e. systems installed in 2001 through 2008 with a rebate, would also be eligible for a four year SREC qualification life. All projects in this market segment would be subject to an entity cap that includes rebated and non-rebated projects. The same alternative

described for the <10 kW systems, specifically to have a qualification life for each year in which a project was built could also be applied to this category.

3. Market Support for > 10 kW Public Systems

This market segment includes all public systems (that do not use a power purchase agreement or other forms of tax advantaged financing²) with greater than 10kW of rated capacity. It is proposed that starting in 2009, new participants in this market segment will receive program support through the revenues generated by the market rate SREC based on the new SACP value. The SREC qualification life for new projects in this market segment is 10 years. The initial design is to base the SREC qualification life on the SACP so that a typical project's internal rate of return accounting for the SREC and other expected streams of revenues and costs are approximately equal to a 12 year payback.

Public projects that use a power purchase agreement or other tax advantaged financing will be treated the same as a larger private project as described above since these projects would have a similar internal rate of return as a larger private project.

Participants in this market segment receiving a rebate, i.e. systems installed in 2001 through 2008 with a rebate, would also be eligible for a 5 year SREC qualification life. The same alternative described for the <10 kW systems, specifically to have a qualification life for each year in which a project was built could also be applied to this category.

Summary of Market Support

Project Type	Rebate (Y/N)	Qualification Life
Queued ³ LTE 10 kW	Y	5 or based on year installed
Queued GT 10 kW Private	Y	4 or based on year installed
Queued GT 10 kW Public	Y	5 or based on year installed
New LTE 10 kW	Y	10
New GT 10 kW Private	N	8
New GT 10 kW Public	N	10

² This is subject to any change in the public contracts law that would allow for a 15 year contract term for energy efficiency and renewable energy projects.

³ This includes systems with rebates install prior to 2009.

4. Initial Recommendations on SREC Vintage SACP and Rebate Levels

The OCE recommends that SREC vintage continue to be limited to one year. The market will be best served if it can avoid significantly different systems for solar and non-solar RECs. Longer-term vintages will take the pressure off buyers and probably lower prices rather than increasing or stabilizing prices. A one-year vintage will lead to greater market clarity and focus on market fundamentals, while minimizing market manipulations or speculation. With a one-year vintage, the market will know what the total resource is on a year-to-year basis.

Consistent with the structure described above, the following is a preliminary quantitative analysis and recommendation for the SACP schedule for EY 2009 through 2016. The SACP schedule would be set as a rolling 8 year period. During the Board's annual review of the ACP/SACP, the Board would drop the prior EY and add the 8th EY, the other 7 years of the SACP Schedule would not change.

Proposed 8 Year SACP Schedule

Energy Year	2009	2010	2011	2012	2013	2014	2015	2016
SACP	\$525	\$513	\$502	\$491	\$480	\$470	\$459	\$449