



New Jersey Approves Solar REC-Based Financing Program

Multi-Year Solar Alternative Compliance Payment (SACP) and Rebates for Small Systems to ensure continued growth of New Jersey's Solar Market to meet 2% Solar RPS (As Approved by the Board September 12, 2007)

Frequently Asked Questions

New Jersey is recognized as a solar market leader and a model program that integrates one of the nation's best set of rules and financing programs for solar energy. The Board decision on September 12, 2007 to move to a market-based Solar Financing Program ensures the continued growth and health of New Jersey's solar market. New Jersey's decision to phase out rebates by 2012 and rely on Solar Renewable Energy Certificates (SRECs) to spur private investment and market development sends a strong message of fiscal responsibility and commitment to New Jersey's solar market and is a model for other states to follow.

Q. How will New Jersey reach its goal of 2% Solar by 2020?

A. New Jersey's Renewable Energy Portfolio Standard (RPS) requires 2.12% Solar by 2021 Solar or an estimated 1500 to 2300 MW of Solar capacity, depending on the level of 2021 retail sales. To meet this goal, we will have to substantially grow and expand New Jersey's solar capacity from 90 MW in 2008 to 2300 MW by 2021. In just 12 years we will need to add as much as 2200 MW of solar capacity or approximately 180 MW of solar capacity each year. In order to reach this goal, New Jersey has developed a model program designed to foster a vibrant and competitive marketplace for solar energy in New Jersey that includes:

- A strong **Renewable Portfolio Standard** with a 2.12% requirement for solar photovoltaic and a **Solar Alternative Compliance Payment (SACP)** to ensure compliance and help create demand and investor confidence in the market;
- Excellent **Interconnection and Net Metering Standards** that have made it much easier for systems to connect to the distribution system and be compensated for the generation of clean, emission-free electricity;
- A **Solar Renewable Energy Certificate Trading Program** that provides energy credits that can be traded and sold thus providing revenue and long term financing options for solar installations.
- A **Solar Rebate Program** for small systems to help reduce the upfront cost of installation

Q. How does New Jersey's Solar Financing Program work?

A. New Jersey's Solar Financing Program relies on a combination of tax credits, electric cost savings, net metering benefits, solar renewable energy certificates, and rebates for small systems to reduce the total cost of installation and drive investment in solar:

- Fed Tax Credits
- Electric Cost Savings through Net Metering Benefits
- Renewable Energy Certificates sold to RPS & Voluntary Markets
- NJ Rebates from our Clean Energy Fund
- Out of Pocket and Private Capital

Historically, New Jersey's solar financing program relied heavily on up front rebates to provide up to 70% of the installation cost. A combination of Solar Renewable Energy Certificates (SREC) and electricity savings provided through New Jersey's net metering regulations provide additional incentives that help bring the internal rate of return to approximately 12% or payback period to less than 10 years.

Q. Are there sufficient funds to achieve the 2% solar target if we continue to rely on rebates?

No. Until now, rebates provided up to 50 percent or more of the cost of solar installation. From May 2001 through November 2007 45 MW of solar capacity was installed at a cost of \$178 million in rebates, or about \$4.2 million per MW. If this rebate program were to continue, it would cost an estimated \$9.6 billion to achieve the 2.12% solar RPS requirement by 2021. This could result in a 6.5% rate impact over this period for just over 2% of the state's retail electricity needs.

A more efficient and sustainable financing model is needed to meet the goals of the solar RPS.

Q. What is the goal of New Jersey's Solar Transition?

The overall goal of New Jersey's solar transition is to adapt its solar financing program to support installation of sufficient solar capacity to meet the Renewable Portfolio Standard requirements **at the least cost to ratepayers**, taking into account other policy goals – such as fairness and equity to all ratepayer classes, job growth, improved reliability/security and improved environmental quality.

Q. What alternative solar financing models were considered by New Jersey?

The Board initiated a two year stakeholder process to consider alternative solar financing models, the cost/benefits associated with each model and rate payer impacts of the various models. Multiple models were evaluated by staff and stakeholders based on other market experiences including: an auction model; hybrid tariff model; feed-in tariff model; commodity model; and an underwriter model. These models are explained in the Summit Blue Report of March 15th and April 25th posted at www.njcleanenergy.com

Q. Which alternative financing model did New Jersey choose to meet its solar goals?

- A. **On September 12, 2007 the Board adopted a market-based financing program** that relies primarily on the use of Solar Renewable Energy Certificates with provisions to continue rebates for small solar systems less than 10kw. To support this approach the Solar Alternative Compliance Payment (SACP), that utilities must pay if they are unable to meet their solar RPS requirement with SRECs, was increased and adjusted to a multi-year SACP for energy years 2009 – 2017. A higher SACP will in effect increase the value of SRECs which will offset the need the rebates.

This approach will shift financing from up front rebates to longer term financing through SRECs. Spreading these costs over time will lower the annual impact to the ratepayer. Another benefit is that the Multi-Year SACP combined with rebates for smaller systems builds upon the existing infrastructure which will help facilitate a sustained and orderly market development. The combination of a multiyear SACP schedule and rebates will also build investor confidence while allowing the market to grow rapidly enough to meet the aggressive RPS goals.

Q. What is a Solar Renewable Energy Certificate (SREC)?

- A. SREC stands for Solar Renewable Energy Certificate and is a type of clean energy credit that can be bought or sold. An SREC is issued once a solar facility has generated 1000kWh (1MWh), through either estimated or actual metered production, and represents all the clean energy benefits of electricity generated from a solar electric system. SRECs can be sold or traded separately from the

electricity (KWhs) thus providing solar system owners a source of revenue to help offset the cost of installation.

Q. How do Solar Renewable Energy Certificates help finance solar development?

A. Solar Renewable Energy Certificates (SRECs) provide a source of additional revenue that can help provide long term financing for solar installations and help reduce the payback period. Solar system owners can choose to sell their SRECs to a broker, aggregator or Load Serving Entity (LSE) who must buy SRECs to meet its RPS obligation. Some solar installers or project developers will offer to buy the SRECs as part of the project financing, thereby reducing the amount of capital needed up front to finance a project. All residential and commercial customers considering financing options for a solar installation should ask about the value of SRECs and who will have the rights to claim them.

Q. How will SRECs reduce the need for solar rebates?

A. SRECs are a type of production credit that solar system owners receive for producing clean, emission-free electricity. The SRECs can be sold to brokers, aggregators or electric suppliers required to buy SRECs to meet their solar obligation thus providing a source of revenue over the life of the solar system. This additional revenue can help finance systems and significantly reduce the payback period for solar. By increasing the value of SRECs paid out over the life the system, the amount of the rebate needed up front can thus be reduced or eliminated.

Q. Will solar rebates still be available after 2008?

Yes, but only for smaller solar systems. It is anticipated that rebates will be available for a set block of capacity for small solar systems for years 2009 -2012 at which time rebates are expected to be phased out. A funding level for \$53.25 million has been recommended for these rebates for the period of 2009 -2012. Specific rebate levels and block sizes will be established as part of the four year budget planning process known as the Comprehensive Resource Analysis (CRA) for Energy Efficiency and Renewable Energy which was begun in April 2007 and is expected to culminate in a public hearing in 2008.

Q. How is the price of the Solar Renewable Energy Certificates determined?

A. The price of a Solar Renewable Energy Certificate (SREC) is determined by a number of factors including supply and demand for SRECs in any given year and the cost of Solar Alternative Compliance Payment (SACP) that utilities are required to pay if they do not meet the Solar RPS through purchasing SRECs. The SACP establishes the ceiling price for an SREC. Generally, SACP levels are set by the Board above the target SREC levels so that electric suppliers have an incentive to purchase SRECs instead of paying SACP and in consideration of a target internal rate of return for solar projects. In New Jersey, SRECs have been trading in the range of 50 to 75% of the current \$300 SACP level for the past two years. However, SREC prices are strongly influenced by market conditions and the supply and demand for available SRECs. (See SREC Pricing on line at www.NJCleanEnergy.com). The competitiveness of this type of market-based approach helps drive down project cost and can significantly benefit ratepayers.

On September 12, 2007 the Board approved the following increase in the SACP and established an 8 year rolling SACP Schedule. The schedule reflects a 3% annual decrease to account for an expected decrease in the cost of solar going forward and improved project economics:

Approved 8 Year SACP Schedule

Energy Year	2009	2010	2011	2012	2013	2014	2015	2016
SACP	\$711	\$693	\$675	\$658	\$641	\$625	\$609	\$594

A balance has been struck which protects ratepayers against the potential risks from setting a multi-year SACP schedule that locks in SACP levels for eight years, and creating an environment in which

solar projects can be financed based on the expectation that these SACP levels will not be modified by a future Board. The Board believes the approved SACP schedule achieves such a balance.

Q. Does the Board or NJCEP guarantee SREC prices?

A. No. SRECs pricing is not determined nor guaranteed by the Board. SRECs trade in a competitive market and SREC pricing is determined by competitive factors such as supply and demand. The Board sets the Solar Alternative Compliance Payment (SACP) at a particular price to serve as an incentive to buy SRECs. SRECs are expected to trade somewhere below the SACP, which acts as ceiling for SREC prices. The Board does not set a minimum or 'floor price' for SRECs. It should be noted that SRECs are a market instrument to assist in financing solar. The actual price of an SREC during a trading period can and will fluctuate depending on supply and demand. The NJCEP makes no representation as to current or future price of SRECs and this risk is entirely assumed by the registrant or investor.

Q. Who is eligible for incentives under the NEW Solar Financing Program?

A. New Jersey's Solar Financing Program provides opportunity for all system sizes and classes of customers to participate. Incentives are available for both small systems (≤ 10 kW) and large systems (> 10 kW) in the public and private sectors.

Q. What incentives available under the NEW Solar Financing Program?

Incentives are available for all market segments and provide sufficient program support to offer a pay back period less than 10 years or internal rate of return of approximately 12 percent.

1. **Smaller Solar Systems** - includes residential and small commercial or public systems. These smaller solar systems have the highest installation cost per kW installed or kWh generated. A performance based rebate will be offered for these smaller systems. The rebate level offered will remain in place until a pre-set level of capacity (MW) was reached, thus eliminating queues and aligning incentives to our goals. In addition, new installations in this category would be eligible to receive an SREC for 15 yrs.
2. **Private Solar Systems Greater than 10 kW** - includes all private systems with greater than 10kW of rated capacity which is commonly referred to as the commercial sector but could include larger facilities such as a house of worship or private school. These solar installations will be eligible for SRECs for 15 yrs based on a new SACP.
3. **Public Solar Systems Greater than 10 kW** - includes all public systems such as schools with greater than 10kW of rated capacity. Starting in 2009, new participants in this market segment will receive program support through the revenues generated by SRECs for 15 yrs based on the new SACP value.

Q. How soon can projects qualify for the NEW Solar Financing Program?

A. On September 12, 2007 The Board extended the registration period for the **SREC- Only Pilot Program** until the requisite rulemaking process is completed. The SREC-Only Pilot Program allows projects to register to be eligible for New Jersey SRECs without the benefit of a rebate. Projects registered in this program are eligible for SRECs under the new SACP schedule.

Q. What is the SREC-Only Pilot Program?

The SREC-Only Pilot Program allows New Jersey solar customers to participate in the SREC market without participating in the CORE rebate program. The SREC-Only Pilot Program is intended to provide customers and project developers with more flexibility to choose to accelerate project development based on the value of the SRECs. If you have any questions about the SREC-Only Pilot Program or how to complete the registration packet, please call the NJ Clean Energy Program at 1-866-NJSMART.

The registration period for the SREC-Only Pilot program is now OPEN. The Board extended the registration period for SREC-Only Pilot Registrations at its September 12 meeting

Q. What is the period of time during which an SREC can be sold?

- A. Currently SRECs must be used within the Energy Year (EY) they were created for NJ RPS purpose. The Energy Year runs from June 1st through May 31st. We are currently in Energy Year 2008, which began June 1st, 2007 and will end May 31st, 2008. As part of the recent board order, the BPU will conduct a required stakeholder rulemaking process, after which the SRECs will be valid for 2 years and suppliers can bank SRECs. Increasing the SREC trading life to two years will help to balance fluctuations in the SREC market and better align New Jersey's platform with surrounding states. This will allow the market to adjust in the event of an oversupply or undersupply of SRECs. This change in the SREC trading life will begin in Energy Year 2009, which begins June 1st, 2008.

Q. How will legacy solar systems that are installed and have already received a rebate be treated?

- A. After a stakeholder rulemaking process, the SREC qualification life for legacy projects will be 15 years but the Qualifying Life (QL) start date (the number of years that SRECs can be sold for a given solar system) will be in the EY in which the project received the rebate. This provision will ensure that the economic benefit to rebated projects is maintained and the additional profit is minimized.

Q. Will Rebates still be available for smaller, residential installations?

- A. The Board views the continuation of rebates (with modifications) as an important strategy for sustaining the market for small scale (primarily residential) systems. Details regarding the level of funding available for rebates and project eligibility criteria will be determined by the Board's as part of the ongoing CRA proceeding which will set energy efficiency and renewable energy funding levels for the years 2009 through 2012. Proposed rebate levels are as follows:

OCE Proposed Rebate Levels

Years	Rebates \$/W	Rebate Blocks (MW)
2009	3.00	7
2010	2.25	6
2011	1.50	8
2012	0.75	9
	Total MW	30
	Total Rebate RPI	\$ 53,250,000

Q. Can smaller, residential customers participate in New Jersey's solar program even if they are not candidates for a solar installation on their residence?

- A. The Board approved the development of a community based solar program to allow smaller customers to participate in the solar market place at a lower cost than if a small system were installed on each customer's residence. A public stakeholder process will commence to develop specific recommendations regarding a proposed community based solar program to be included in the RPS regulations in accordance with the rulemaking schedule set forth below.

Q. What is the estimated impact of the new solar financing program on ratepayers?

- A. There are three major factors that will impact the overall cost and annual rate impacts associated with implementation of the solar REC financing model: the SREC qualification life; the initial SACP value, and the annual rate of decrease for the 8-year SACP schedule. The total cost of SRECs can be estimated by multiplying the number of SRECs needed to meet the Board's annual RPS goals by the forecast SREC price. The impact on rates, expressed on a percentage basis, can be estimated by dividing the total cost of SRECs by the assumed electric revenues in any given year. SREC costs and rate impacts are expected to increase gradually until reaching a peak of \$904 million and 4.76% in year 2021. The Board will impose rate caps to ensure that the program does not exceed pre-determined rate impact levels via rulemaking.

Q. How will New Jersey limit total cost to ratepayers?

- A. A mechanism has been established to monitor and cap overall solar incentives at approximately 2% of total electricity sales on an annual basis. The Board set a cap of 2% of total ratepayer electricity bills to limit the cost of the program on ratepayers. A capping mechanism on the cost of SRECs, will be triggered if estimated solar incentive costs exceed 2% of estimated retail electricity costs. Such a freeze will remain in effect until costs drop below the 2% threshold. With this safety valve and total cost monitoring, moving to a srec financing model will be more cost effective with a lower overall annual cost to the ratepayer.

Q. Where can I find more information on New Jersey's Solar Financing Program?

More information on New Jersey's solar financing program is available on line at www.NJCleanEnergy.com or you can call NJ Clean Energy Customer Assistance at 1-866-NJSMART



New Jersey’s Solar Financing Program

As Approved by the Board September 12, 2007

Financing Model: Competitive, Multiple Year SACP with Rebates for Smaller Projects

SREC Qualification Life: 15 Years

SREC Vintage: 2 Years (RPS Rulemaking Required)

SACP Schedule: 8 Year rolling SACP (2009 -2016)

Annual percentage decrease in SREC/SACP Levels: 3%

SREC Levels Required to Achieve Target IRR

Energy Year	2009	2010	2011	2012	2013	2014	2015	2016
SREC	\$611	\$593	\$575	\$558	\$541	\$525	\$509	\$494

Approved 8 Year SACP Schedule

Energy Year	2009	2010	2011	2012	2013	2014	2015	2016
SACP	\$711	\$693	\$675	\$658	\$641	\$625	\$609	\$594

Rebates (2009 – 2012): For Smaller Solar Systems at \$53.25M Funding level
 (Rebates and block size and other details to be determined in the ongoing CRA Funding Proceeding)

OCE Proposed Rebate Levels

Years	Rebates \$/W	Rebate Blocks (MW)
2009	3.00	7
2010	2.25	6
2011	1.50	8
2012	0.75	9
	Total MW	30
	Total Rebate RPI	\$ 53,250,000

SREC Pilot: Extended until made permanent through Rule Making

SAFETY Valve: Cap on overall solar incentives at approximately 2% of total electricity sales on an annual basis. **BPU will monitor the costs of solar installations relative to the total retail market electricity costs to provide for a “safety valve” in the RPS rule making as needed.**