

## Environmental Law

### Incentives Drive Expanded Use Of Solar Energy in New Jersey

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New Jersey is a national leader in solar energy, with the second highest number of homes and businesses with solar power of any of the states in the nation. The growth of the state's solar industry has been driven by an ambitious requirement that increasing percentages of the regulated power suppliers' energy come from renewable energy sources, favorable financial incentives and favorable regulatory provisions such as net metering rules.

In order to determine the economic viability of a solar project and the return on investment, the financial incentives available under both New Jersey and federal law must be analyzed.

#### State Incentives

##### Solar Renewable Energy Credits:

The core state incentive is the solar renewable energy credit (SREC). As part of a system administered by the Board of Public Utilities, solar systems are certified and connected to BPU's tracking system

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and a SREC is issued to the owner of a solar energy generation system for every megawatt hour of electricity generated by the system. This allows the owner of the system to generate revenue from the system.

The value of a SREC is supported by the Renewable Energy Portfolio Standard (RPS), which legislatively mandates that wholesale and retail electric power suppliers in New Jersey generate a certain minimum percentage of their energy through renewable energy sources, including solar energy. The Solar Energy Advancement and Fair Competition Act (P.L. 2009, c. 289), signed into law on Jan. 17, requires that power suppliers generate an annually increasing minimum amount of energy from solar electric power. To the extent generators do not meet these minimums; they must pay a Solar Energy Compliance Payment (SACP), currently set at \$675 per megawatt hour, or purchase SRECs.

SRECs can be sold by solar system owners to the regulated power suppliers and others pursuant to long term fixed price contracts, at auction or on the spot market. Solar systems are eligible to generate SRECs for the first 15 years of the system's life. Initially, a SREC could only be traded in the year it was generated. The trading life of a SREC has been extended, most recently by the Solar Energy Advancement and Fair Competition Act,

so that SRECs now have up to a three-year life.

The market value of SRECs varies depending on the availability of SRECs on the market and the SACP. As more solar systems are built, more SRECs are available for sale. However, the increasing RPS requirements, which are expected to outpace solar energy generation, are expected to continue to create demand for SRECs.

The Solar Energy Advancement and Fair Competition Act further provides under certain circumstances that if there is an adequate or excess supply of SRECs to meet the RPS for a specified period of time, the RPS will increase. By some estimates, SREC values should run about \$100 less than the SACP. According to the New Jersey Office of Clean Energy, the weighted average price of SRECs was trading at slightly over \$600 per megawatt hour at the end of September.

The SACP, which is established by the BPU, effectively sets an upper limit on the value of a SREC. The SACP cost is set through 2016 with annual decreases from \$675 for reporting year 2010-11 to \$658 in 2011-12, \$641 in 2012-13, \$625 in 2013-14, \$609 in 2014-15, and \$594 in 2015-16. The BPU is required to set SACP rates beyond 2016 but has not yet done so.

**Utility Loan Programs:** SRECs are also a key aspect of utility-based loan programs. The BPU has approved financing programs for all four of New Jersey's electric power distributors to encourage installation of solar systems. For example, PSE&G offers a loan program that can cover 40 to 60 percent of the cost of installing a solar system and can be repaid

with SRECs which, for the purpose of the loan repayments, have established floor prices. The floor prices in PSE&G's program vary depending on the nature of the customer (residential or commercial), the size of the system and the timing of the loan.

**Net Metering:** Net metering allows the user of solar energy to supply whatever energy it does not consume back to the public grid. The electric meter "spins both ways." This means that when the system generates more energy than is required for the user's facility at a given time, the meter spins backward and the user receives a credit at the retail rate for each kilowatt hour returned to the public grid. When the user's system is not generating enough energy for the user's on-site needs and the user needs to take energy from the public grid, the meter spins forward, counting each kilowatt hour the user purchases from the grid. At the end of a 12-month cycle the customer is compensated for any remaining net energy generated at the wholesale-avoided rate. The size of the solar system may not exceed the customer's usage needs, but otherwise there is no limit to the size of a system that can be interconnected.

**Rebates:** New Jersey solar incentives have evolved from what was initially a rebate system to primarily a market-based system, using the SREC. However, some rebate programs remain. The Renewable Energy Incentive Program provides rebates for systems of less than 50 kilowatt hours. Rebate levels vary depending on a variety of factors. These rebates are payable approximately 60 days after the installed system passes inspection.

The New Jersey Manufacturing Incentive provides rebates for purchase and installation of solar equipment manufactured in the state. The rebates apply to systems of up to 500 kilowatt hours and start at \$0.25 for solar panels and \$0.15 for inverters (which change the DC power from a photovoltaic array into the AC

power used in homes and on the grid).

**Sales Tax Exemption:** New Jersey provides an exemption from the 7 percent sales tax for solar equipment. To take advantage of the exemption, the consumer must provide the seller with an Exempt Use Certificate (Form ST-4) in lieu of payment of the tax.

**Property Tax Exemption:** New Jersey also provides a full property tax exemption for the value of the solar energy system. To obtain this exemption, the solar system purchaser needs to complete an Application for Certification of Renewable Energy System and provide it to the local tax assessor.

#### Federal Incentives

**Investment Tax Credit:** An investment tax credit (ITC) allows 30 percent of the eligible cost basis of solar systems to be credited against corporate tax. 26 U.S.C. § 48. The eligible cost basis includes the cost of any equipment that uses solar energy to generate electricity, operate solar heating and cooling systems, as well as systems used to provide solar process heat. There is no cap on the 30 percent credit. This ITC is available on systems placed in service on or before Dec. 31, 2016.

**Grant in Lieu of Investment Tax Credit:** Under the federal American Recovery and Reinvestment Act of 2009 (ARRA) (Pub. L. No. 111-5), a 30 percent grant is available in lieu of the ITC for solar systems placed into service by 2010 or solar systems for which substantial construction commenced prior to Dec. 31, 2010, that are placed into service by the end of 2016. The grant is payable within 60 days of the start up of the system. The grant is applicable to commercial systems but not residential systems. The federal guidelines include a "safe harbor" provision under which "substantial construction" is deemed to have occurred when the taxpayer has incurred or paid at least 5

percent of the total system cost exclusive of land and preliminary planning activities.

**Accelerated Depreciation:** Accelerated depreciation is another incentive that allows companies to defer taxes by amortizing a solar system on an accelerated schedule. The federal Modified Accelerated Cost Recovery System under the Internal Revenue Code allows business owners to recover costs for solar systems using depreciation deductions. The depreciation schedule for solar systems under the system has been set at five years since 1986.

**Bonus Depreciation:** The Economic Stimulus Act of 2008 (Pub. L. 110-185) included a 50 percent first-year bonus depreciation for eligible renewable energy projects, including most solar projects acquired and placed into service by 2008. 26 U.S.C. § 168(k). This provision was extended retroactively for all of 2009 by the ARRA, and again in September retroactively for the year under the Small Business Jobs Act of 2010 (Pub. L. No. 111-240). While bonus depreciation now applies to systems installed prior to the end of 2010, recent history suggests that there may be further extensions of this incentive.

**Combination with Other Incentives:** Solar energy savings can be combined with other benefits for maximum advantage. Federal law provides a tax deduction for energy-efficient buildings ranging from \$.60 per square foot to \$1.80 per square foot, subject to a cap on square footage, depending on the systems installed and total energy cost savings. The \$1.80 deduction is available for buildings whose energy costs are reduced by more than 50 percent through the replacement of interior lighting, building envelope and heating, cooling ventilation or hot water systems. The \$.60 deduction is for upgrades of lighting, building envelope or heating or cooling systems, if combined with the other improvements that would reasonably be expected to result in a 50 percent or greater reduction in energy costs. ■