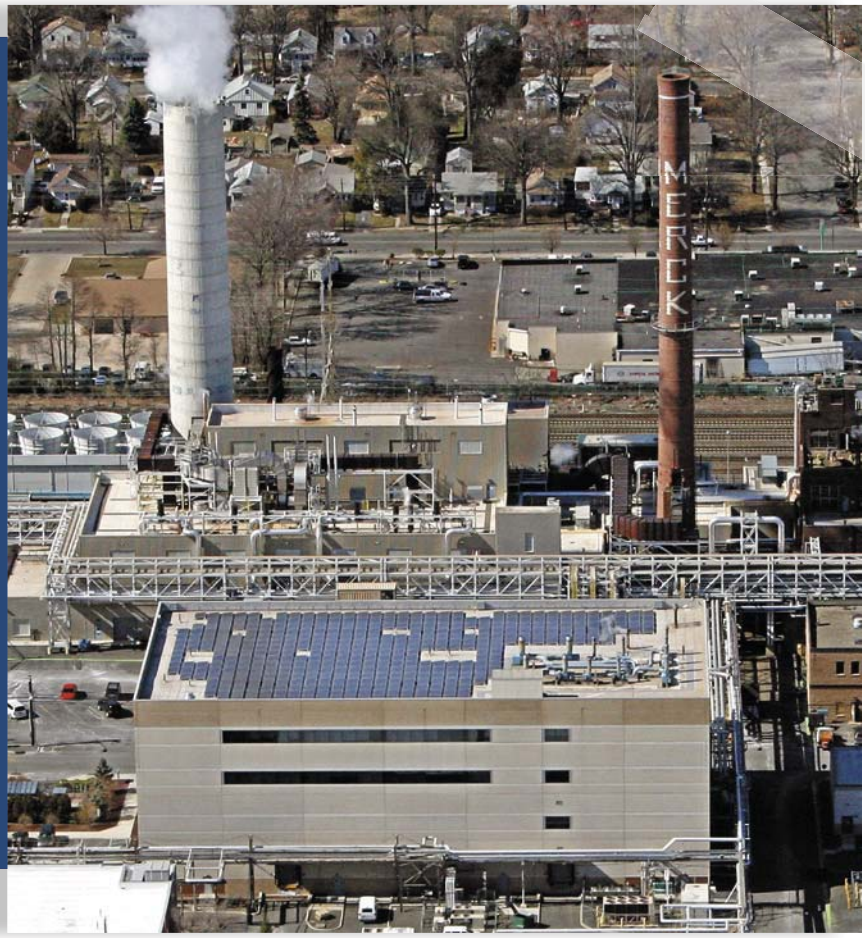
# A QUICK FALL

## PLUNGING SREC PRICES IN NEW JERSEY FORETELL A DIFFICULT 2012 FOR AMERICA'S SECOND-LARGEST MARKET

**Through much of 2011, there were few, if any, places in the world that promised higher returns on solar projects than New Jersey. With an incentive scheme reliant on the value of solar renewable energy certificates, and the price of these certificates skyrocketing, investors flocked to the Garden State. Rising prices reflected the fact that the state's electric companies hadn't acquired enough certificates to meet their obligations under the law. Suddenly, however, prices have plummeted, and there are worries about what happens next.**

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**Where is New Jersey headed? With SREC prices dropping, many worry that the state's solar industry will lose out to dirty power**

There's almost as much speculation about New Jersey's solar market today as there was about the political ambitions of the state's governor, Chris Christie, a few months ago. Though Christie definitively rejected the idea of a presidential bid in late September, the messages that his state is sending to solar investors are still mixed. Politicians and some in the New Jersey solar industry have been more than eager to tout their accomplishments. Not only is the Garden State America's second-largest market for photovoltaics (PV), with a cumulative 430 MW installed as of Aug. 31, around 300 MW of which has been constructed in 2010 and 2011, but it even surpassed California in commercial installations earlier this year. And for investors, the Northeastern state has been an especially attractive place. According to a September report from Boston, Massachusetts-based Lux Research, New Jersey was the hottest market in the world in the second quarter of this year, when rated by internal rates of return


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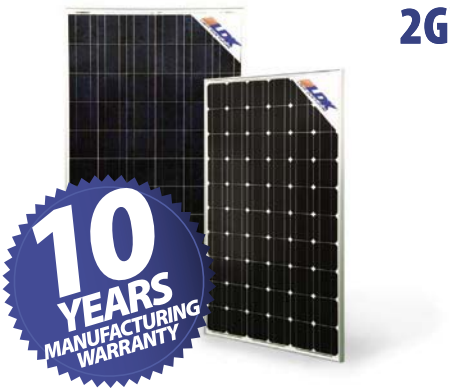


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(IRR), with 40-percent IRRs being routine in late 2010 and early 2011.

This would be great news if it weren't for one nagging detail: the value of the solar renewable energy certificates (SRECs) that are the very heart of New Jersey's incentive program have been collapsing for months, plummeting in price on the spot market from above $600 per certificate at the beginning of 2011 to as low as $166, before rebounding recently to about $200. This is an ominous development for the homeowners, businesses, churches and schools that installed PV under the assumption that the value of SRECs – each of which represents 1 MWh of solar generation and which must be sold within 2 years of their creation – would be at a level high enough to make their investment in solar worthwhile. »The smaller system owners, the people who have four or fewer SRECs, are going to be the ones waiting to see when the market recovers,« says Gaurav Naik, a principal at GeoGenix, a developer and integrator active all around New Jersey. »They might not like selling their SRECs this year because they have higher expectations of spot values based on what they have seen in previous years.«

This is not encouraging news for New Jersey's solar companies, many of which are envisioning a difficult 2012. For his part, Naik believes the lower SREC prices combined with the likely end of the federal government's 1603 cash grant program will have a chilling effect on a market that has seen 30 to 40 MW installed per month recently. »It will have a huge impact, and it will substantially slow down the New Jersey market,« he says.

### The perils of the market

To understand why SREC prices have fallen so dramatically and why – at least if nothing changes soon – 2012 will bring a significant market slowdown, it's helpful to understand the structure of the solar incentive program in New Jersey. Policymakers first attempted to build the solar market there through the use of generous rebates to spur PV adoption – a strategy adopted by many other states. Even from the early days, however, the intention was to transition to the so-called market-based incentive scheme represented by SRECs, a move that was no doubt hastened last year when Gov. Christie raided $158 million from the budget for rebates in order to balance New Jersey's budget.

In a nutshell, the SREC incentive works like this: demand for the certificates is created by the state's Renewable Portfolio Standard (RPS), which requires utilities and other energy retail distribution companies in New Jersey to obtain 22.5 percent of the electric-

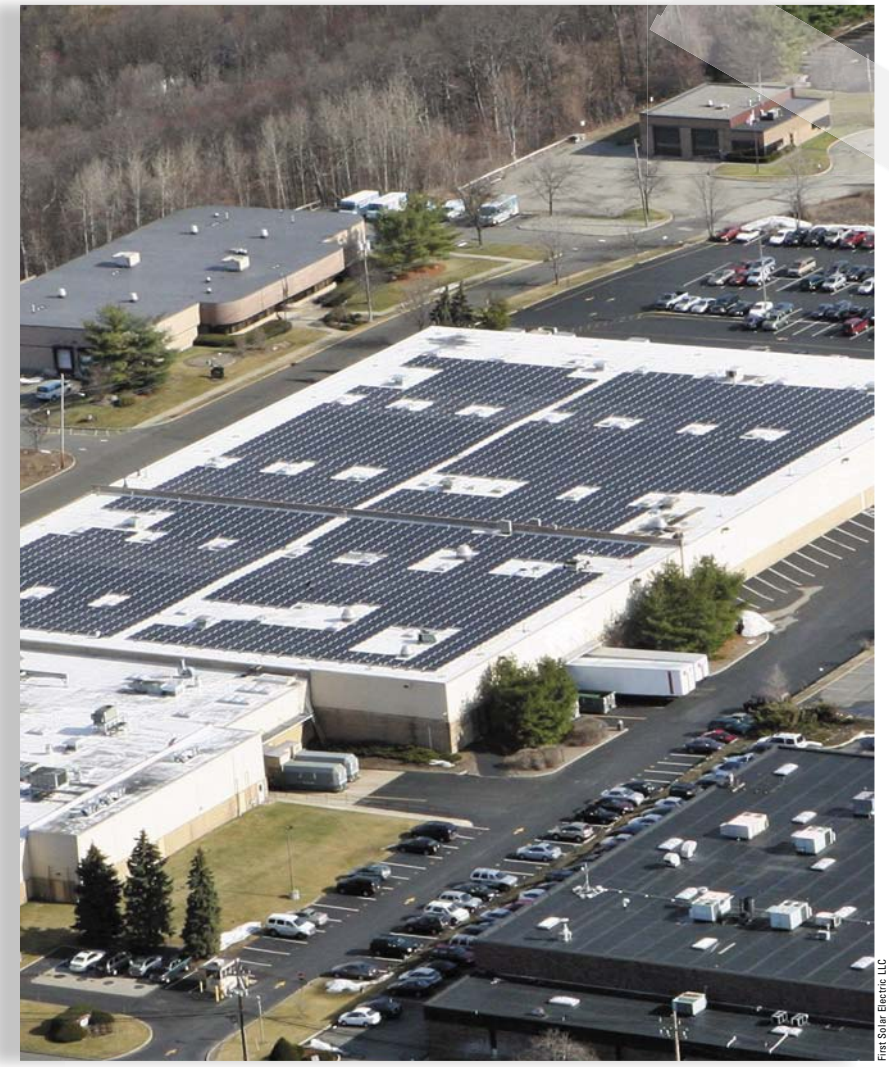
ity they sell from renewable sources by 2021. Initially, the RPS required utilities to obtain a specific percentage of the electricity that they sold from solar. But the Solar Advancement Act of 2010, which was adopted last January, changed that requirement to specific annual gigawatt-hour targets, which increase each year and reach 5,316 GWh by 2026.

With demand created by the RPS requirements, policymakers believed both that the supply of SRECs would follow and that the best way to determine the price for them was through the marketplace; aggregators and brokers have emerged to connect the electric companies needing SRECs with the PV developers and system owners generating them. Yet another wrinkle to this already complex picture comes from the fact that there is an implicit ceiling for SREC prices in the form of the Solar Alternative Compliance Payment (SACP), which is the fee charged to utilities that don't meet their obligations under the RPS. The SACP declines each year and its level is set until 2016, when it is $594 per MWh.

Until earlier this year, the main concern policymakers in New Jersey had about their creation was that prices for SRECs were way too high. Put simply, there was not enough solar in place to meet the RPS requirements, which meant there was a real premium to be paid for each and every SREC available. As would be expected, that dynamic alone spurred a lot of solar development; integrators enticed homeowners and businesses with rapid payback times, thanks to sky-high SREC values.

Also at work, though, were some unintended consequences that transformed interest in building solar projects in New Jersey into what many have called a gold-rush mentality. In addition to high SREC values, as of 2009, many developers could also take advantage of a provision of President Barack Obama's stimulus package allowing for a 30-percent cash grant in lieu of taking the standard investment tax credit. In addition, the federal government allowed businesses installing solar to take an immediate 100-percent depreciation of the cost of the installation, a big benefit for companies seeking to lower their tax bills.

The impact of these two temporary federal incentives – combined with high SREC prices and falling installation costs – was to prompt a solar boom. »You had disconnected parties creating different levels of subsidies at the federal and state level,« says Jamie Hahn, a principal with Solis Partners, a developer of mostly commercial-sized



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**Rooftop revival: With lots of factory rooftop space available, New Jersey has become the US leader in commercial installations. Falling SREC prices may threaten that distinction**

PV projects in the state. »That is where you had the tremendous IRR in investing in solar assets in New Jersey, and that remained true until the middle of this year.« That's when the bust that inevitably follows the boom in these sorts of situations began to surface. Around midyear, the Board of Public Utilities (BPU) issued a warning about something that was already obvious to close observers of the market: solar capacity was being added in New Jersey so quickly that more SRECs were being generated than would be needed for RPS compliance by utilities. With supply suddenly outpacing demand, prices for SRECs on the spot market crashed.

## Short-term pain, long-term gain?

What sort of impact does all this have on the future sustainability of America's second-largest solar market? If nothing is done quickly, Hahn believes New Jersey could see a dramatic slowdown in solar installation activity. »Based on the amount of SRECs needed to meet the obligations of the load-serving entities in New Jersey, we won't have to build much solar next year,« he says, adding, »There's not going to be the demand for those SRECs in the marketplace.«

Not surprisingly, there's no shortage of ideas on how to address the current dilemma and make long-term improvements to what is obviously a flawed incentive program. On a practical level, a big problem is that there is no up-to-date source of information about the progress of solar projects in the state. There is a queue of proposed projects, which is essentially a repository of applications submitted by those who want to build SREC-eligible solar systems. But because only a nominal fee is required to submit applications, Hahn and others argue that the numbers reflect a lot of speculation. There is also data available about projects that have already been interconnected, though that information is inherently backward-looking and provides little help in determining the balance between SREC supply and demand. Hahn argues that a database providing a day-to-day picture of where PV projects are in their development would be invaluable.

But given the recent boom in project development, transparency alone will not help the market avoid a sudden crash. To do that, Naik from GeoGenix says that legislation increasing some of the SREC obligations under the RPS would be helpful. In other words, Naik would like to see the RPS tweaked in order to create more demand. A bill doing just that was introduced in the state Senate, though its prospects are uncertain.

Naik would also like to see long-term contracts for SRECs become pervasive. Right now, only a small amount of multiyear contracts for SRECs are available through such avenues as the Solar Loan Program from utility PSEG, a pilot program that expires at the end of this year. The groundwork for permanent long-term contracting, however, does seem to be moving forward. The BPU recently unveiled a stakeholder process that will result in a defined and gradually declining SACP through 2026. The fact that the SACP is currently set until only 2016 makes the terms and prices of long-term contracts difficult to determine.

Even if these steps are taken, it's very hard to envision as much solar being installed in New Jersey in 2012 as was installed this year. Chris Warren