

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Proceeding on Motion of the Commission	)	Comments of the New York Solar
Regarding a Retail Renewable Portfolio Standard	)	Energy Industries Association
Case 03-E-0188	)	In Support of NYSERDA's
	)	Petition for Expansion
	)	Of the RPS Customer-Sited
	)	Photovoltaics Program

Wednesday, April 11, 2012

Introduction

Formed in 1994, the New York Solar Energy Industries Association is the only statewide trade association representing solar and related businesses throughout the state. NYSEIA's membership consists of:

- Solar electric and solar thermal manufacturers, distributors, and component suppliers.
- PV and solar water and space heating installation companies.
- Professional attorneys, engineers and architects serving the solar energy industry.
- Advocates and allied organizations committed to advancing the market for solar energy in New York.
- Utilities and energy service companies.
- Non-profit and government representatives involved in solar energy research, training and education.

NYSEIA, founded in 1994, is the only statewide non-profit membership and trade association dedicated solely to advancing solar energy use in New York State. NYSEIA represents the 300+ businesses across 338 locations in New York State that employ over 4,200 individuals throughout the solar value chain.

The New York Solar Energy Industries Association (NYSEIA) respectfully submit the following comments in the Renewable Portfolio Standard (RPS) program proceeding. These comments constitute a majority view of the NYSEIA membership, as collected by online survey in March 2012 and synthesized by the Board of Directors. Where a clear (> 75%) margin was not obtained, multiple options are presented.

NYSEIA Strongly Supports the Expansion of the RPS Customer-Sited Tier Photovoltaics Program.

Over the past 5 years, there has been an astonishing degree of change in the solar industry. Installed costs have dropped precipitously, and global installed capacity has increased by several orders of magnitude. Solar is ready to step into the “big leagues” as a major resource with a core role in energy planning and economic development decisions.

However, New York has lost what was once a leading position. Of the more than 3.144 GW of installed PV in the US, New York’s 68 MW – or .0068 GW has it producing just 2% of the United States’ solar power, behind California, Colorado, Florida, Hawaii, New Jersey, New Mexico, Nevada, North Carolina, and neighboring Pennsylvania. Within the neighboring PJM region, more than 950 MW of photovoltaic capacity is operational today.

Solar has delivered on its initial promises of installing significant MW, in a very short time. Further it has done so with state incentive levels that have never been lower, and which continue to “ratchet away” in all markets.

Accordingly, we strongly support the annual investment levels proposed by NYSEERDA as a necessary “down payment” on a serious long-term program that sees solar into a relatively near-term future where no subsidy above retail energy is necessary.

However, we feel that this type of major reinvestment would also require some significant changes to the way NYSEERDA operates its current program. Adoption of best practices currently in use in a large number of other states will be necessary in order to most effectively use the increased funding NYSEERDA proposes to deploy.

Accordingly, we couple our strong support for NYSEERDA’s proposed funding levels with some specific recommendations as to how this funding could be more effectively spent.

1) NYSEERDA Can and Should Move to a Pay-for-Performance System That Would Double or Triple The Amount of Solar Deployed per Annual Budget Dollar.

Historically, NYSEERDA has paid all rebates in the form of a single upfront lump sum denominated in dollars per Watt of output. This has the advantage of being relatively simple to administer, as well as easy to comprehend (for customers) and sell (for developers.)

However, it has several significant disadvantages as well. Primarily, it severely limits the amount of solar that can be installed for a given annual budget. It creates a need for significant post-installation quality assurance and installation auditing, much of which could be reduced if incentives were exclusively paid on an as – generated per – kWh basis. (commonly known in the sector as a Performance-Based-Incentive or “PBI.”)

This would require NYSEERDA to require performance monitoring on all systems, and to retain such data for payments. However, we feel that this is an achievable hurdle. Firstly, NYSEERDA currently requires a separate electromechanical production meter for all systems as is. Shifting from this to a meter capable of remote reading over the Internet is eminently achievable. Alternatively, several other programs in surrounding states have developed PBI systems with a list of approved Internet-based monitoring

systems, which are increasingly a standard feature of even small PV systems. Further, the PowerClerk software platform used by NYSERDA is capable of monitoring system performance submissions and is used in this way by other incentive programs.

While there will be some level of initial difficulty with customer confusion, experience in other programs suggests that customers are capable of understanding a PBI just as they understand net metering savings over time, and NYSEIA's members are willing to take on this challenge in exchange for the significantly expanded scope of market that it would enable. Further, the use of a relatively richer, shorter-term 3 year PBI would achieve the programmatic benefits of the PBI system while still accommodating customers' upfront investment at today's prices. The program could easily build on NYSERDA's program experience with the downstate Customer-Sited Tier program.

Option A: "Step Into" PBI. As part of the process of continuing to reduce overall incentive levels, we would recommend NYSERDA also convert gradually to a PBI on a roughly equivalent net present value basis. (e.g. and for purposes of illustration only, a \$1.25 / Watt upfront incentive could be reduced to a \$.75 / Watt upfront incentive with a \$.10 / kWh 3 year PBI, paid once annually., to a \$.50 / Watt upfront incentive with a \$.10 / kWh 3 year PBI, etc.)

Option B: Sudden Conversion to PBI Alternatively, NYSERDA could simply move to an all-PBI scheme in one "fell swoop" over the course of a single step

Installer Caps Under a PBI System Notably, NYSERDA currently enforces a 300 kW monthly limit per installer or affiliated entity. This applies both to a traditional fee-for-service contractor, as well as a financing provider. (e.g. solar leasing / PPA providers such as Sungevity, SunPower, etc., who do business with multiple contractors statewide.) This proportional limit reflects the reality of very limited monthly funds. However, it is also highly constraining; part of the reason, for instance,, that NYSEIA contractor members do not enjoy the economies of scale that could come from operating from multiple locations near the state's dispersed population centers, and that financing options are available only to a few contractors. Going forward, if the number of kW were to be significantly increased through a pay-for-performance / PBI system, we would hope that the affiliated entity limits would increase proportionally.

Planning Horizons Under a PBI System Were NYSERDA to move to a pay-for-performance model, an individual commitment for funding would no longer be resolved within 4 – 8 months with a single payment. Rather, it would trigger an obligation for annual payments (and budgeting) 3 years into the future. From a pure mechanics perspective, this creates the need for a longer planning horizon (through 2015 / 2016 at a minimum); we feel that this level of foresight is necessary for industry development in any case.

2) NYSERDA Must More Consistently and Transparently Implement Solar Incentive Reductions

NYSERDA's program guidance states that should the rate of uptake of new incentives exceed the monthly budget for a two month period, that they may reduce the incentive amount. However, in practice this adjustment has been applied in a needlessly opaque fashion.

- **Incentive Reductions are Not Consistently Applied** While the program documents specify that this incentive reduction can well occur if two sequential months exceed programmatic spending targets, NYSERDA has at times elected not to make such reduction, adding uncertainty and an element of surprise that tends to increase the disruptiveness when reductions do occur.
- **Reduction Amounts are Not Stated Until They Occur** NYSERDA has stated a concern with a surge dynamic, in which developers and contractors hearing of a pending incentive reduction “flood the system” with applications, creating administrative and spending difficulties. While conceding the reality of this concern, we dispute the validity of NYSERDA’s apparent strategy for dealing with this surge – namely, providing only minimal warning of a pending reduction. (In the most recent instance, just two days.)

While a surge of activity in advance of an incentive reduction is to some degree inevitable, we feel that it is best managed with more, not less, transparency. In short, NYSERDA should follow acknowledged national best practices by publishing – in advance – specific criteria under which the incentive will be reduced, and specific amounts by which the incentive will be reduced. To be certain, NYSERDA will have somewhat less flexibility to precisely adjust the incentive under this system. However, with the ability to reduce incentives every several months, we are confident any necessary recalibration could occur rapidly.

Further, the industry can cope far better with a period of “known unknowns” than one of “unknown unknowns”. It is possible to communicate with a customer (or absorb into financials) a space of several weeks where a known, modest reduction is a likely but not fully predictable outcome, based on the current application tracking on NYSERDA’s PowerClerk website. It is far more difficult to do so when NYSERDA issues a two-day warning of an incentive reduction based on somewhat subjective criteria and to a previously unknown amount. We feel that this will reduce – not increase – the surge problem, and provide far better predictability to all parties.

- **NYSERDA Could Reasonably Make Such Reductions Either Based on Committed Spending Per Month, or Based on MW thresholds.** Currently NYSERDA theoretically adjusts future incentives downwards if the *pace* of applications is such as to exceed their monthly spending limits. This system is a reasonable method of adjusting incentive amounts to market conditions without the difficulty of bidding individual small projects for a minimum incentive. Alternatively, NYSERDA could duplicate programs nationwide which adjust the incentive amount based on total MW committed to date. In either case, the most critical component is transparency, using the existing public Web-based application tracking tool as the benchmarking tool.

3) Together With Shifting to a PBI, NYSERDA Should Raise the Current 50 kW System Limit for Small Commercial Systems

It is our understanding that among the reasons for limiting rebates to just 50 kW in installed capacity was to spread limited incentive funding over a larger number of systems. With the greater number of

projects per annual dollar that can be achieved with a PBI system, we feel this constraint will be somewhat eased; accordingly, we recommend that the Commission direct the Authority to increase the maximum size of system permitted to take a rebate up to 100 kW in size, with competitively bid programs serving for larger system sizes, as below.

4) NYSEIDA Should Expand the Current Geographic Balancing Program Statewide

NYSEIDA petitions the Commission to use 75% of the increased funding (\$39.38M/yr) for a statewide competitive bidding program for larger-scale and aggregated systems, modeled after the Geobalance program.

NYSEIA strongly supports this request. The program fills a significant gap in New York, enabling the medium-scale commercial development that has been a major driver of deployment in other states. Further, it uses competitive bidding to drive down the amount of public subsidy to the minimum possible, while reserving that type of process for the larger systems that are best able to bear such transactional costs.

As above, we do feel that the more natural “break” between incentives that track the market rather “approximately but cheaply” through descending steps and those which track the market “expensively but precisely” is ca. 100 kW.

5) The “Geobalancing-Like” Program Should Use a Bid – Per – Project System, As Opposed to the Current Bid-For-Block System, and Incorporate Other Programmatic Fixes

Currently, the geobalancing program permits developers to reserve a “block” of kW reserved funding, having presented Letters of Interest from customers only for 20% of that block. This encourages developers to maximize their reservation amount even though they may not have an end-use customer in sight (or may not have resolved other pre-development contingencies).

This system is to our knowledge unique among state energy programs, and may have been a response to a need to commit large amounts of ARRA funding in a short time with limited administrative resources.

However, when considered as a long-term project support mechanism, the result of this unique system is likely to be inefficient; increased concentration of the funds among a limited number of developers, reduced competition for pricing, together with less than 100% realization of bid kW in a timely fashion. These effects are likely to be compounded by the lack of a clear and compelling deadline for project completion post-bid.

We urge the Commission to direct the Authority to use a bid-per-project framework as the geobalance program moves ahead, and to impose a project completion deadline (perhaps 12 months from award.) A shift to this type of system would also suggest the imposition of bid bond or bid security requirements, so that developers or speculators cannot “clog the queue” by taking what is essentially a free option on ratepayer money.

Further, we note that as the program expands beyond its current limited scope that it will include zones with significantly differing economics, both for solar construction and for the underlying electricity. We

suggest that projects only bid against other projects from their own zone, for assigned funding within that zone, so as to ensure a distribution of solar development statewide.

Finally, as in other programs, subjectivity is the enemy of efficiency and investment. We urge that NYSERDA limit or eliminate the use of noneconomic criteria in the bidding process; to the extent they are included, the thresholds and criteria for any such criteria should be extremely clear and empirically determinable by participants pre-bid.

#5: Solar Thermal Program Changes

We feel that the solar thermal programs currently under NYSERDA's purview could similarly benefit from a PBI perspective; however, the most critical change in this space would be some means of expanding the program to cover natural gas and oil offsets on a seamless-to-the-customer basis, as well as the inclusion of commercial systems, which as in PV have driven a significant proportion of total deployments nationwide. While we appreciate that the Commission has recognized solar thermal as a valuable resource and included solar hot water in the Customer Sited Tier of the RPS, only ~15% of the residential customers in the state use electricity to heat their hot water; being able only to address these customers creates significant difficulties in marketing and sales.

Conclusion:

New York's solar industry stands ready to bring New York back into a leadership position among those states deploying solar technologies. We strongly support both NYSERDA's request for enhanced funding for the existing rebate programs, as well as the adoption of certain best – practices changes to the programs that will enable it to effectively deploy this enhanced funding.

Respectfully Submitted,

/s/

Ron Kamen

On behalf of the NYSEIA Board of Directors