

A distributed renewable energy company

Solar Transition Stakeholder Comments

Contact:

Aaron Culig – President aaron@nextgridpartners.com 720-217-5939

#1 – SREC Program Feedback

In your direct experience, how has the current SREC program functioned over the past 5 years?

Pros:

- Led to NJ being one of the premier solar markets in the country.
- Provided jobs, savings to rate payers, better air quality
- Helped advance solar technology
- Lowered the cost of installing solar
- Created ancillary industries (renewable insurance, marketplaces, environmental consulting etc)

Cons:

- Volatile market price swings
- Incentives too rich at times
- Creates friction with utilities

#2 - SREC Transition Analysis

2) How should any proposed SREC Successor Program be organized in conformance with the Clean Energy Act and Staff's SREC Transition Principles? Please provide detailed quantitative and qualitative responses as to the perceived pros and cons of each of the following options: a. a fixed price SREC; b. a market-determined SREC; and c. any other option(s).

Market Based

- Volatile/Unpredictable
 - See SREC historical chart
- Affected by regulatory changes
 - Market changes coincide with regulatory announcements (RPS increase, new governor, bills introduced)
- Inefficient
 - Numerous brokerage, trading and market middle men capitalizing on uncertainty. Adds no value to rate payer nor developer

Fixed Price

- Predictable
 - Rate does not change
- Efficient
 - No need for middlemen or markets (srec trade, flett exchange)
- Simple
 - Try explaining SREC pricing to an 80 year old grandmother putting solar on her roof. Then explain a fixed number to her.

#3 - Recommendations for new Program

3) Based on your response to question 2 above, provide precise quantitative and qualitative recommendations as to how your preferred SREC Successor Program model would be implemented, keeping in mind the necessity of satisfying the "SREC Transition Principles" set forth above.

- Lower, fixed SREC or feed in tariff for 20 years 12 15¢ / kwh range
- Incentivize desired locations Rooftops, dual use canopy, floating solar, brownfield
 - Reduce value for undesired locations greenfield development, farms
- Incentivize desired offtakers Low Income, Elderly, Non-profits, Municipalities, Schools
- Work with utilities on their desired locations for generation (congested, high load areas)
 - Reduce value for solar where no generation is necessary
- Make utility grid capacity information available (substation, circuit capacity, etc)
 - Uncertainty of interconnection impact is a needless, time consuming and monetary waste.
 In the current process, developers must file an application to know if there is DG capacity available for a project. For context this process takes 40 days and upwards of \$10,000 in NJ, it takes 40 seconds for free in CA
- No limits on the program size. This is crucial to take advantage of the Investment Tax Credit (ITC) before its value reduced over the next 4 years

#4 – Value of Legacy SRECs

4) How should Legacy SRECs be valued? Should these Legacy SRECs be valued under the SREC Successor Program or valued separately?

- Legacy SRECs: SRECs created by projects that filed an SRP Registration and entered into operation prior to the attainment of the 5.1% transition point
- Straight line depreciation to \$0 Use the spot market price when 5.1% goal is reached and the remaining contract life of the SREC.
- For example:
 - Spot market SREC price at time of RPS Goal (5.1%): \$220
 - 15 year SREC with 10 years remaining
 - SREC would be reduced \$22 per year for the next 10 years
- Reasoning: This provides certainty to ratepayers, developers, financial companies, utilities, and is simple.

#5 – Value of Pipeline SRECs

5) How should Pipeline SRECs be valued? Should these Pipeline SRECs be valued under the SREC Successor Program or valued separately? a. Should the Board continue the current SREC program as a separate program? If so, how? b. Should the Board include the current SREC program within the SREC Successor Program? If so, how?

- Pipeline SRECs: SRECs created by projects that filed an SRP Registration but which have not entered into commercial operation prior to the attainment of the 5.1% transition point.
- Straight line depreciation to \$0 using a discounted spot market price when 5.1% is reached and the remaining contract life
- Only allow this until new program is finalized
- For example:
 - Spot market SREC price at time of RPS Goal (5.1%): \$220
 - Reduce the amount by 20% for pipeline recs: \$176 starting value
 - 15 year SREC with 10 years remaining
 - SREC would be reduced \$17.6 per year for the next 10 years
- Reasoning: Solar development cycles are long and developers need to be able to calculate the value of a project while the program is in transition. This mechanism allows the industry to transition while still following Staffs transition principles.

#6 – MW Targets

6) For any solar transition, should the Board set a megawatt ("MW") target for annual new solar construction? If so, should those targets be defined as percentage of retail sales or a set MW cap? Under what circumstances and/or assumptions is this target achievable?

- Targets are hard to predict as well as set properly. This leads to uncertainty and stranded assets. If they are used as a goal and not a hard or absolute number, they can provide value.
 - For example, the NJ, IL & MA state solar programs are oversubscribed in certain areas and at certain times. Developers have funneled resources into the projects but now are uncertain if they will qualify for the programs and the projects sit in limbo. Landowners and Rate Payers are left with bitter feelings and resentment as their agreed value was never realized.
- If the market can add 2, 3 or even 4 GW of solar in 1 year would that be a bad thing for New Jersey?
 New Jersey has already set ambitious targets, but the market should be allowed to achieve those goals as fast as it can within budget
- MW are easier to understand and predict. Retail sales can fluctuate due to non-solar based factors (energy efficiency, weather, etc).

#6 & 7- MW Targets & Caps

6) For any solar transition, should the Board set a megawatt ("MW") target for annual new solar construction? If so, should those targets be defined as percentage of retail sales or a set MW cap? Under what circumstances and/or assumptions is this target achievable?

7) In any SREC Successor Program, should the Board seek to set annual MW capacity caps for new solar construction or percentages of retail sales? Why or why not? If yes, what should be the value through 2030 and why? If yes, should the Board seek to set differentiated capacity caps under the solar RPS based on project type?

- NO. Targets are hard to predict as well as set properly and it is time consuming to adjust. This leads to uncertainty, stranded assets and constant regulatory updates needed to amend targets. Targets and caps should be used as a guideline, not an absolute.
 - For example, NJ, IL & MA state solar programs have been oversubscribed at times. Developers have funneled resources into the projects but now are uncertain if they will qualify for the programs or if the value of the program will be there. The projects often sit in limbo or are canceled. Landowners and Rate Payers are left with bitter feelings and resentment as their agreed value was never realized.
- If the market can add 2, 3 or even 4 GW of solar in 1 year would that be a bad thing for New Jersey? New Jersey has already set ambitious targets, but the market should be allowed to get to those goals as fast as it can, not because of a number someone decides.
- MW are easier to understand and predict. Retail sales can fluctuate due to non-solar based factors (energy efficiency, weather, etc).

#8- Incentives

8) In the SREC Successor Program, should the Board provide differentiated SREC or solar value incentives to different types of projects? Should such differentiated SREC compensation be created through SREC multipliers, through an add-on valuation, or through some other method? Based on what factor(s) should any SREC compensation be differentiated?

- Absolutely!
- Adders
 - Land Based: Rooftop, Dual Use (agricultural, canopy, parking lot, floating), Brownfield, Disturbed Land (sand pits, superfund sites)
 - Offtaker Based: Low Income, Elderly, Non-profit, Education, Municipality, Public Entities
- Subtractors
 - Greenfield development Possibly 1:1 land conservation rules
 - Location: Facility in rural, low load zone should not qualify for the same rate as facility in congested, high load area
- Multipliers
 - Size: Smaller projects should be given more incentive due to higher construction,
 Interconnection costs. Should promote diversified project size and allocation so that all of the capacity isn't allocated to large projects and developers.

#9, 10, 11 – Cost Caps

9) How should the cost cap be measured? Should any "head space" under the cost cap in the first years be "banked"? Why or why not?

10) Can and should the cost cap be determined based on net costs that include some type of valuation of associated benefits? If so, what should those qualitative and quantitative benefits be and how should they be assigned a value? If the Board can and should consider a net benefits test, should other cost impacts be included? Which ones? Why? If other cost impacts should not be included, why not?

11) What steps should the Board take to implement the cost cap? In particular, please discuss the pros and cons of decreasing the Class I REC Renewable Portfolio Standards. Should any measures implemented differentiate among the different type of Class I renewable energy technologies? Should these measures be technology neutral? Why or why not?

- Cost cap should be measured in MA installed
- Yes, all head space should be banked. Need to get to the State goals, any extra money should be banked to reach the goal.
- All cost caps should be based on data and analysis.
- We are not qualified or educated enough on the net benefits test to supply a useful answer
- Cost caps should be decreased over time to eventually lead to no incentives.
- Decreasing RPS:
 - Pros: No money allocated
 - Cons: Industry isn't on level playing field with fossil fuels subsidies, climate change, antiquated grid and technology
- There should be no differentiation between technologies in class I RECs
- Yes, market sectors need to be handled differently as they require vastly different processes, incentives, labor forces, company models, financing and regulation

#12 – Market Transition

12) Should the solar industry transition into a true, incentive-free market as the costs of solar begin to approach "grid parity be a goal, or even a consideration, of the SREC Successor Program? If so, how can a SREC Successor Program assist that transition? Should a transition also encompass changes to the net metering program (cf. ongoing FERC/PJM review of DER aggregation)?

- Yes, the entire energy industry should transition into a true, incentive-free market. This is not currently the case on the federal level, where fossil fuel companies still receive far greater subsidies than solar energy.
- The SREC Successor program must take into account all programs (federal, state), legislation,
 politics, etc that incentivize different technologies. A third party independent analysis would show
 the different incentives for all types of electrical generation and the program should adapt
 accordingly.
- No net metering should not be changed. This should become a moot point once storage technology reached grid parity in the coming years.

#13 – Significant Issued Not Addressed

13) Please provide comments on any significant issues not specifically addressed in the questions above, making specific reference to their applicability in the New Jersey context. Please do not reiterate previously made comments

- BPU must require utilities to publish circuit level DER interconnection data
 - Uncertainty of interconnection outlook is a needless, time consuming and monetary
 waste. In the current process, developers must file an interconnection application to know
 if there is DG capacity available on a certain circuit. This process can take months and
 upwards tens of thousands of dollars in NJ, it takes 40 seconds for free in CA.
- Utilities already have this data, they just need to share it
- More advanced examples:
 - MA/NY/CT/RI Pre app
 - https://www9.nationalgridus.com/masselectric/home/energyeff/4_preapplication.asp
 - CA Online Mapping Tools
 - https://www.pge.com/en_US/for-our-business-partners/distribution-resourceplanning/distribution-resource-planning-data-portal.page
 - http://www.arcgis.com/home/webmap/viewer.html?webmap=e62dfa24128b4329bfc 8b27c4526f6b7