



Mid-Atlantic Solar & Storage Industries Association
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March 20, 2020

Ms. Aida Camacho-Welch
Secretary
New Jersey Board of Public Utilities
44 South Clinton Avenue
9th Floor
Trenton, NJ 08625

Via email to:

solar.transitions@bpu.nj.gov

Charles Gurkas Charles.Gurkas@bpu.nj.gov

Re: SUCCESSOR PROGRAM MARCH 20 COMMENTS

Dear Ms. Camacho-Welch, Mr. Gurkas, and Solar Transitions team:

The Mid-Atlantic Solar & Storage Industries Association (MSSIA) is pleased to present these comments in regard to the above-referenced notice.

MSSIA is a trade organization that has represented solar energy companies in New Jersey, Pennsylvania, and Delaware since 1997. During that 23-year period, the organization has spearheaded efforts in the Mid-Atlantic region to make solar energy a major contributor to the region's energy future. Its fundamental policy goals are to: (1) grow solar energy and storage in our states as quickly as practicable; (2) do so at the lowest possible cost to ratepayers, while delivering the greatest possible benefit as a public good; and (3) preserve diversity in the market, including opportunity for Jersey companies to grow and create local jobs (<https://mseia.net/fundamental-principles/>).

SUMMARY OF KEY POINTS

- MSSIA believes that incentive program type i) and iii) are both viable alternatives. The only fundamental difference between them is that type **i) provides a fixed KWH rate for total compensation (energy + incentive)**, while **type ii) provides a fixed KWH rate for the incentive only**.
- Most other program design details can be applied in a similar manner to both program type i) and iii).
- MSSIA believes that type i), a fixed total compensation rate, is the most rational approach, providing the best advantages to ratepayers, the solar industry, and the utility industry. It will open up vast new markets for solar, enabling the most cost-efficient projects.
- MSSIA believes that the incentive (type i)) or total compensation (type iii)) levels can be set administratively through modeling. In order for that approach to achieve the goals, though, the process needs to improve by becoming fully transparent and taking industry input more seriously.

- MSSIA believes that incentive levels should be set for the duration of the initial program year. The Board should also establish indicative pricing for the following two years. Several months before the start of each program year, the Board should review incentive levels, with stakeholder input and modeling, and set new incentive levels for the next program year.

MSSIA's detailed responses are shown below in blue font after each of the staff questions.

Topic 1: Successor Program Incentive Design

1. Please describe the advantages and disadvantages of the three incentive program types identified above.

Firstly, MSSIA believes that the nature of type ii), the tradable market commodity incentive, essentially guarantees costs that are higher than necessary. The history of this type of incentive, in fact, is one of extremely high costs compared to other states, as well as boom-and-bust cycles. Therefore, MSSIA believes that it is not necessary to go into its advantages and disadvantages in further detail.

MSSIA believes program types i) and ii), are both viable alternatives. For both, there are many features and details to be considered. **However, the only really essential difference between the two is that type i) provides a fixed KWH rate for total compensation (energy + incentive), while type ii) provides a fixed KWH rate for the incentive only.**

Choices for other program features and details that are discussed below in the answers to other questions, could be applied readily to either incentive type.

Advantages and disadvantages to the two approaches – relating to the essential difference discussed above – include:

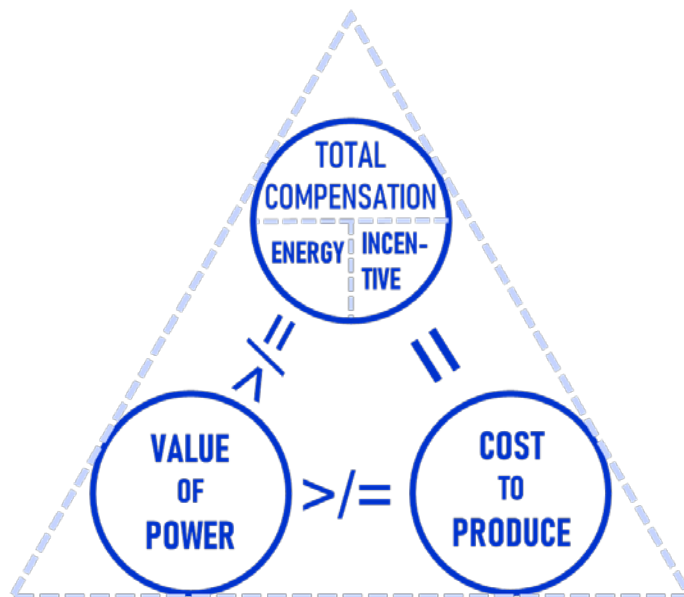
Program type i) “Tariff-based incentive” – Fixing the total compensation to be received by a solar facility (energy compensation plus incentive compensation) makes this incentive type similar to the Massachusetts SMART Program. The SMART Program is a “*Tariff-based incentive*”¹ for both behind-the-meter and stand-alone (i.e., grid-supply) projects in which “*being classified as Behind-the-Meter vs. Standalone does not change the total compensation rate for which a facility is eligible under the tariff*”¹. The syntax of these explanations can be confusing, but it simply means that a base price, with differentiators for different types of projects, is set to represent the total compensation (energy plus incentive), to be paid to projects whether they are connected on the customer side or the grid side of the meter.

This is a rational approach, since the policy goal should be to ensure that the **total compensation** delivered to a solar facility is equal to the amount needed to compensate for that facility’s **cost to generate power** (including a reasonable rate of return).

The total compensation, cost of producing the power, and the value of the power should all relate to each other. Ideally, the total compensation and the cost of producing the power (including a reasonable rate of return) should be equal, and the value delivered by the power should be greater than or equal to the cost and greater than or equal to the compensation, as shown in Figure 1 below:

¹ Solar Massachusetts Renewable Target (SMART) Program Summary, October 31, 2018
<https://www.mass.gov/files/documents/2018/04/26/SMART%20Program%20Overview%20042618.pdf>

Figure 1: Relationship Among Total Compensation, Cost to Produce Power, and Value of Power



Changing the point of interconnections for a facility by a few feet to connect on one side of the meter or the other does not materially change the value delivered to the grid, and it does not materially change the cost, so the total compensation should not be materially different, either.

Besides the advantage of being a simplified and rational way to fix total compensation, this incentive type enables grid-connected projects in the same sizes and locations as net-metered projects. This generates several advantages:

1. More grid-supply projects means less erosion of throughput for EDC's, so that they can stay healthy and be more willing allies in the development of solar energy;
2. Substantial new markets would open up for properties that have plentiful roof or ground space but limited load.
3. Even more new markets open up because barriers are eliminated for projects in which the property owner does not have investment-grade credit. A large number of additional potential projects would thus be enabled.

Projects such as the ones discussed above tend to be very cost-efficient, so ratepayers would benefit. Utilities would benefit from the preservation of throughput. The solar industry would benefit from the opening of new markets. The achievement of the Clean Energy Act requirements and the Energy Master Plan would also be enabled by the opening of these vast new markets. Although the Community Solar program can be a partial solution to opening these new markets, the type i) approach, including such grid-connected systems as well as community solar, can move the goals further, faster, and likely at the lowest *total compensation cost* of any market sector.

Program type i) has the advantage of providing secure, long-term total compensation to a project, thus enabling the lowest cost of capital, and consequently lower total costs to ratepayers. It also is simple to understand and explain to owners and hosts.

Disadvantages have appeared in the way the total compensation type was implemented in Massachusetts, but these are not necessary features of such a program. Some of these “features to avoid” are discussed below in the answers to other questions.

Program type iii): “Performance-based incentive” – MSSIA finds the descriptive title of this program type to be confusing, since all three program types presented in the Notice are performance-based incentives, tied to KWH output. Perhaps a clearer descriptive title for Program type i) and Program type iii) would be “Fixed Total Compensation Payment” and Fixed Incentive Payment”. Not as catchy, perhaps, but more accurate.

Program type iii) has the partial advantage of providing secure, long-term revenue to a project for the incentive portion of a project (but not for the energy portion). The incentive portion of the project is simple to understand and explain to owners and hosts.

Program type iii) also has the advantage that it could be similar to the Transition Incentive, which will already be underway as the Successor Program is being crafted and implemented. Therefore, less work will need to be done to implement the Successor Program if that type is chosen.

In terms of the administrative burden of crafting and implementing the successor program, Program type iii), since it focuses just on incentive values, also can delay or avoid much of the complex work of understanding and quantifying the value of the energy portion of compensation. This may be a short-term advantage, but MSSIA believes that thorough consideration of the value of the energy portion of compensation is a valuable and ultimately necessary task if the state is to rationalize the compensation of solar energy holistically.

2. How would you expect the incentive value (and the cost to ratepayers) to change based on the incentive program type?

MSSIA believes that it is likely that the incentive value in program type i) could be higher or lower than the value in type iii) for different market segments. However, MSSIA expects that the total compensation (energy + incentive) would be lower on average in program type i), since it is designed specifically to adjust the total compensation to reflect cost accurately. The total cost to ratepayers would thus be lower, since payments of all compensation costs, including incentives *and* energy costs, ultimately come from ratepayers.

3. Should the Board establish a differentiated incentive (i.e. different incentives for different project types), as was done for the Transition Incentive program? If yes, what should these different project types be?

Yes, the Board should establish a differentiated incentive. MSSIA believes that factors are a simple and efficient way to create differentiators. Differentiators should include the following project types:

1. Residential (less than 25 KW)
2. Small Commercial (less than 250 KW)
3. Large Commercial (over 250 MW)
4. Landfills & Brownfields
5. Carports
6. Floating PV
7. Grid-supply projects over 10 MW

8. Community solar
9. Public Projects (additive factor)
10. Valuable green spaces (reductive factors)
11. Solar with batteries (additive factors)
12. Congested areas of other special policy priorities (additive factors)

4. How should the Board set the value of the incentive: via administrative modeling, a competitive solicitation, or an on-going market? What are the advantages and disadvantages of these three mechanisms?

MSSIA believes that administrative modeling is potentially a simple and accurate way to determine the value of the incentive (or total compensation in the case of type i)). However, the recent experience regarding the establishment of the Transition incentives was mixed. As MSSIA has commented extensively, its members and board believe that the program design and the base level, and some factors were set appropriately. However, some factors for certain market sectors were greatly at variance with the level that is necessary. Those sectors collectively make up a large fraction of the total market, and significant harm was created for our member businesses that work in those markets, the employees they create and maintain, and the ratepayers.

Even if competitive solicitations were employed as part of the process of setting incentive level, some administrative decisions, such as factors for different market sectors, are likely to be part of the process too if it is to be manageable.

It is important, then, to ensure that industry input is taken more seriously in the process of setting incentive levels and program details. It is equally important that the modeling that is necessary for administrative level-setting is fully transparent, and that collaborative, fully detailed discussions are held between and among experts on the BPU side and industry side, in order to prevent erroneous outcomes.

MSSIA believes that the incentive levels should be set for a particular program year and remain in effect during that year - unless unusual circumstances, unacceptably low participation not meeting program goals, or participation that is too intense (indicating significant overstimulation) occur.

Indicative incentive levels should also be established at least two years ahead in order to allow development efforts and investment to continue. Several months before the start of a new program year, the Board should conduct a review with stakeholder input and modeling, and finalize an incentive level for the next program year.

MSSIA believes that the competitive procurement option, using a market clearing price to set a base rate, could be considered if the competitive procurement is held each year.

On the other hand, numerous problems have been experienced in states utilizing the declining MW block model.

5. How should the Board establish and periodically revise the maximum incentive payment caps described in the Clean Energy Act?

If this questions refers to the overall statewide cost caps, MSSIA refers Board staff to its extensive comments of January 16, 2020 and January 31, 2020 on that topic.

If the question refers to the maximum incentive payment caps for different market sectors, as discussed in Topic 2, please refer to the answers to Topic 2 below.

6. What is the preferred incentive qualification life (10 vs. 15 years) based on typical project financing?

MSSIA believes that 15 years is preferable to 10 years as a qualification life, and 20 years may be preferable to 15 years. Longer qualification lives should lower net present value costs to ratepayers, and will also provide substantially lower costs during the “kink” years relative to the cost caps.

7. The Clean Energy Act requires that the Board “encourage and facilitate market-based cost recovery through long-term contracts and energy market sales.” Please provide your assessment of various market-based cost recovery mechanisms, and their applicability to each of the three incentive program types developed by Cadmus.

MSSIA has not yet developed a position on that issue.

Topic 2: MW targets / Program Capacity

8. What MW target project categories should be established?

MW target project categories should include:

1. Residential
2. Small Commercial
3. Large Scale behind the meter systems
4. Community Solar systems
5. Large scale grid-connected systems (> 10 MW)

9. How should the Board set the capacity for each MW target, in compliance with the incentive cap and cost cap requirements? Please consider: 1) how the Board should set the overall capacity to be made available on an annual basis for the Solar Successor Program; and 2) the relative breakdown of the total annual capacity between MW target project categories.

MSSIA believes that the overall capacity annually should begin at least at 500 MW annually, and ramp on the following schedule:

| | |
|------|----------|
| 2021 | 500 MW |
| 2022 | 650 MW |
| 2023 | 800 MW |
| 2024 | 950 MW |
| 2025 | 1,100 MW |

The relative breakdown between project categories is covered in the answer to the next question.

10. Should the historical breakdown of actual MW installations serve as the basis for future targets?

The historical breakdown can serve as a basis for future targets, except that all previous historical percentages would need to be adjusted downward to accommodate the inclusion of community solar percentage. We believe that if a large grid-connected system category (>10

MW) is included in the program, then that category should be smaller than the historic grid-supply percentage because: (1) if it is defined as >10 MW, it is a narrower category than before; (2) some of the need for large-scale projects can be satisfied with community solar projects; and (3) some of the need for large-scale projects can also be satisfied by rooftop and other intermediate-sized grid-supply projects, as enabled by the program type i) design features discussed above.

11. How should the Board administer these MW targets? Should projects be allowed to participate on a first-come, first-served basis?

Yes, projects should be allowed to participate on a first-come, first served basis.

MSSIA wishes to stress that the most common cause of failure or significant disruption of solar incentive programs – not only in the U.S., but worldwide – has been allowing the pace of solar construction to outrun the targets, or budgets, for solar energy. The result often has been an effective shutdown of programs, and/or boom/bust cycles.

Of paramount importance is to structure the program so that in each program year, applications only be accepted up to that year's capacity target.

12. What measure should the Board implement to prevent “queue sitting”? Please include in your response a discussion of a) maturity requirements, b) filing fees, and c) alternative suggestions.

Both queue-sitting and excessive scrub rates are concerns to be addressed.

As long as applications are only accepted up to each year's capacity target, the potential for queue-sitting is at least somewhat limited in scale. Further, it may be worthwhile to divide each year into two halves, and then accept applications for half the year's target during each half year.

Beyond that, the current practice of requiring executed PPA and EPC contracts should be maintained at a minimum. Depending on the degree of robust program design elements adopted to apply a careful throttle to the application approval rate, the Board may need to consider other possible enhancements to avoid queue sitting and excessive scrub rates. One would be to require receipt of all permits, but that could add an intolerable burden to the project development cost and timeline. Another further measure could be to require filing fee. That will also suppress the pace of development, and may differentially harm local New Jersey small businesses. Therefore, MSSIA believes that including throttle elements in the program design is the best way to achieve orderly development.

13. Should excess annual capacity be reallocated if not used (e.g. if a project drops out of the pipeline)?

Yes, excess annual capacity (and, if semi-annual targets are adopted, per MSSIA's comments above, then excess semi-annual capacity) should carry over to the next period.

14. Should projects located in municipal utilities that do not pay into the RPS be eligible to receive Successor Program incentives?

MSSIA has not yet developed a position on that issue.

15. How can the State most efficiently progress towards the goals set in the Energy Master Plan, while balancing ratepayer costs for solar development in- and out-of-state?

MSSIA does not believe that New Jersey incentive payments should be made to out-of-state solar facilities.

The question of how to balance achievement of the goals in the Energy Master Plan and keeping ratepayer costs low is simple to answer at high level. The answer is to design the successor program to provide streamlined and secure compensation for projects, and prioritize the most cost-effective projects, and the projects that deliver the greatest value. MSSIA comments presented here are designed to do that.

Topic 3: Grid Supply Solar

16. Should the Board maintain the current subsection (t) and subsection (r) processes for determining incentive eligibility for grid supply projects?

Yes. Subsection (t) fulfills a long-standing, and still relevant, goal of the state: to encourage solar development on landfills & brownfields. Subsection (r), with appropriate limits, will be needed in order to fulfill the requirements of the Clean Energy Act and the goals of the Energy Master Plan, while helping to keep the overall cost to ratepayers low.

If yes, what conditions should be maintained?

The current form of the subsection (t) process is adequate. The subsection (r) process should first proceed according to the requirements of the Clean Energy Act, then be re-assessed based on how the successor program is structured to cover the sector, the disposition of the community solar program, and the progress toward the Energy Master Plan goals.

If no, how should the Board treat grid supply projects?

17. Should the Board set a dedicated incentive value for grid supply projects? If yes, how can the Board best determine the appropriate incentive value (i.e. incentive gap modeling vs. bid process)?

For subsection (t) projects, the Board should employ a defined incentive rate as part of the successor program, with a value to be determined by modeling, subject to the concerns expressed in the answers to question no. 4.

For Subsection (r) projects over 10 MW, the Board should employ a competitive solicitation.

18. Should the Board establish a maximum system size to be eligible for a Successor Incentive? If not, how should economies of scale and the lower incentive gap be accounted for solar electric generation facilities over 20 MW?

Yes, the Board should establish a maximum system size of 10 MW to be eligible for a successor program incentive.

19. What is the best means to motivate investment in rooftop grid supply solar facilities where insufficient electricity loads preclude net metering and the wholesale value of electricity generated increases the incentive gap relative to rooftop net metered projects?

As stated above, the best way to motivate investment in rooftop grid supply projects is to adopt program type i), and make the total compensation (energy + incentive) for such projects the same whether they connect on the grid side of the meter or the customer side of the meter.

Topic 4: Solar Siting

20. How should the Successor Program incentive structure be designed to address the state policy preference for solar located on rooftops, landfills and brownfields versus open space and farmland?

One problem with the way the question is stated is that there are categories of land use that don't fit any of the ones listed, and it is important to take them into account.

A perfect example is unused, already-cleared land adjacent to power users like schools, municipal facilities, water and sewer authorities, hospitals, etc. Such sites have been an important market sector for solar development. They have been used to good effect without infringing on good land use practices, and have provided substantial cost savings and other benefits to many public entities. Such projects should be encouraged. Preferred siting for solar facilities, along with other policy priorities, can be encouraged through factors, as discussed above.

21. What land use restrictions and limitations should apply to the Successor program incentive to reflect the siting of solar projects in New Jersey? Please include a specific discussion of solar on farmland and open space, consistent with all applicable New Jersey statutes and regulations.

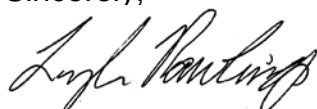
One of the things the Massachusetts SMART Program did very well was to provide a detailed classification of green spaces, and apply subtractions that were progressively larger for properties with higher value as green space. MSSIA believes that this approach would be very appropriate for New Jersey.

22. Aside from the various types of net metered projects and grandfathering a defined set of projects on farmland, the Solar Act of 2012 limited eligibility for SRECs to solar electric generation facilities which demonstrated no adverse impact on open space or those located on properly closed sanitary landfills and brownfields as defined in the Spill Compensation and Control Act. Should the criteria for Successor Program incentives retain these limitations as contained in the statute or be refined to broaden eligibility beyond the footprint of a landfill cap or limits of the brownfield site?

As stated above, the existing limitations should be refined by creating additional categories and measures of the "green" value of land, and establishing graduated additive factors and subtractive factors.

MSSIA thanks staff for the opportunity to provide input on this matter.

Sincerely,



Lyle K. Rawlings, P.E.
President