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September 8, 2020

Aida Camacho-Welch
Secretary
New Jersey Board of Public Utilities
solar.transitions@bpu.nj.gov

Via Email

Re: ***Successor Program Capstone Report – Docket No. QO20020184***

Dear Ms. Camacho-Welch,

Solar Landscape LLC is pleased to provide the following comments in response to the Request for Comments regarding the Successor Program Capstone Report.

Thank you,

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To Whom It May Concern:

Solar Landscape is an Asbury Park, New Jersey-based company specializing in medium- and large-scale solar project development, design, installation, and long-term asset management. Solar Landscape is currently working on bringing to commercial operation 8 projects awarded in Community Solar Program Year 1, in addition to developing and building behind-the-meter projects, mainly on large commercial and industrial rooftops and schools.

Over the past several years, Solar Landscape has installed over 120 MW across more than 85 projects, ranging in size from 50 kW to 7 MW and primarily located on warehouses, factories, shopping centers, schools and municipal properties. As a self-performing general contractor, we've proudly employed over 100 New Jersey residents to date, and we are honored to have been recognized as one of New Jersey's 50 fastest growing companies.

Our focus on commercial and industrial ("C&I") roof-mounted systems is in large part driven by our firm belief that these projects offer more societal benefit than any other type of PV system or, for that matter, any other form of power generation. These projects make use of surfaces with few alternative uses on pre-disturbed land, which is optimal for the environment. They are largely out of sight, which is optimal for local residents. They are the largest type of rooftop system, which is cost-effective and therefore optimal for ratepayers. And they benefit New Jersey businesses and schools on whose rooftops they operate.

Solar Landscape fully supports the Board's efforts to design an equitable and effective solar incentive to succeed the TREC and commends the Board for its progress thus far. We offer the following comments as requested in Docket QO20020184.

Sincerely,

Mark Schottinger
General Counsel

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STAKEHOLDER INTRODUCTION

Solar Landscape is an Asbury Park, New Jersey-based company specializing in medium- and large-scale solar project development, design, installation, and long-term asset management. Over the past several years, Solar Landscape has installed over 120 MW across more than 85 projects, ranging in size from 50 kW to 7 MW and primarily located on warehouses, factories, shopping centers, schools and municipal properties. As a self-performing general contractor, we've proudly employed over 100 New Jersey residents to date, and we are honored to have been recognized as one of New Jersey's 50 fastest growing companies.

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Solar Landscape fully supports the Board's efforts to create a smooth transition to a successor incentive regime that will ensure New Jersey cost-effectively meets its ambitious clean energy targets. To that end, we submit the following comments in relation to the revised Straw Proposal shared on October 3, 2019.

SUMMARY OF COMMENTS

Our recommendations are guided by our belief that the TREC represents a significant design improvement over the SREC and that predictability, smoothness and transparency are paramount in any incentive design. We think the following design principle would best achieve this:

- An **adminstratively set fixed-price incentive for all non grid-supply projects** with similar factorization to the TREC but also, in cases where revenue is impacted e.g. community solar, different incentive levels in different EDC territories. A **two-year review period** could be used to recalculate incentive levels based on market developments.

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RESPONSES TO SPECIFIC QUESTIONS POSED BY STAFF

1) The draft Capstone Report recommends the implementation of a bifurcated incentive structure, with a competitive solicitation for utility-scale projects and fixed, administratively set incentives for smaller projects.

a. Do you agree with this recommendation? Why or why not?

b. If you agree with this recommendation, how should NJBPU divide market segments between those projects eligible for the competitive solicitation and those projects eligible to receive the administratively set incentives?

i. Do you view project size as the appropriate means of differentiating between competitive solicitations and administratively-set incentives? If so, please identify what NJBPU should consider to be the size limit between a utility-scale and small scale project.

ii. If project size is used to differentiate incentive-types, how should NJBPU develop a competitive solicitation for utility scale projects that takes into account the different revenues that net metered projects earn compared to those that sell at wholesale?

iii. Alternatively, should all net metered projects rely on administratively-set incentives instead?

iv. If you recommend a different option for establishing criteria to distinguish projects that qualify for competitive solicitations versus fixed incentives, please elaborate on your recommendation.

v. How should projects that meet the requirements of the Solar Act subsection (t) (i.e., grid-supply projects located on landfills and brownfields) be treated?

c. If you disagree with the concept of a bifurcated competitive solicitation and fixed, administratively-set incentive approach, what would you suggest as an alternative incentive structure? Please be as specific as possible.

Solar Landscape supports the concept of a bifurcated incentive structure defined not by project size, but by project type—with a competitive bid process for utility-scale grid supply projects and administratively set incentives for all other projects, including behind-the-meter (BTM) and community solar (CS) projects.

While project economics are undoubtedly shaped by project size, Solar Landscape believes this is generally linear, all else equal. As a result, selecting a certain capacity threshold below which projects qualify for administratively set incentive, and above which projects must participate in competitive solicitation, adds unnecessary artificiality to the solar marketplace in New Jersey.

Rather than focus on size, the delineation of incentive types should focus on project type, which can already be a source of material differences in economics (all else equal), and thus also makes an appropriate categorizing logic for incentive design. Solar Landscape believes that a logical bifurcation point would be to create a separate incentive structure for utility-scale grid supply projects and have all other projects qualify for administratively set incentives at different levels, depending again on project type.

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2) If NJBPU were to implement administratively-set incentives:

a. How often should the incentive value be re-evaluated and potentially reset? Please comment on the mechanism by which NJBPU should consider modeling and analysis to inform future deliberations regarding incentive values.

b. Should NJBPU differentiate the incentive value (similar to the TREC factors)? If so, on what basis? Please discuss whether NJBPU should differentiate based on the following: (i) customer classes; (ii) installation type / project location; (iii) EDC service territory; (iv) project size; or (v) other.

c. How is an administratively-set incentive consistent with NJBPU's goal for continually reducing the cost of solar development for ratepayers, in line with the reductions in the cost of solar development?

d. In the draft Capstone Report, Cadmus used a 15-year Qualification Life (i.e., incentive term) as the base case, with the exception of residential net metered direct-owned projects, for which the incentive term was set at 10 years based on project payback period. Please comment on these respective proposals regarding length of qualification life, including what changes you would suggest, if any, and why.

Solar Landscape agrees with the concept of a factorized, fixed-price incentive structure (like the TREC), with incentive values recalculated every 2 years. Solar Landscape believes this is an appropriate balance of managing incentive levels and managing administrative costs and is therefore a cost-effective approach that is good for both ratepayers and the development of clean energy in New Jersey.

Solar Landscape believes 2 years is an appropriate period between recalculations of the incentive level—enough time for project economics to have evolved, and to manage administrative costs, but not so much time that incentive levels will have become grotesquely oversized.

Solar Landscape believes it is critical to the incentive design that Staff build and improve on the already commendable structure of the TREC—especially the factorization by project type. Consideration should be given to:

- *i) Offtake type/customer class, to ensure customer classes (e.g., low- and moderate-income households) are not unduly disadvantaged,*
- *ii) Installation type/location, to account for differential build costs, and*
- *iii) EDC service territory, but only for project types where this attribute impacts project economics (e.g., for Community Solar through varied approaches to rate design and rate levels)*

Finally, Solar Landscape supports a 15- or 20-year incentive structure for non-residential projects. A 15-year structure provides a long-term source of reliable cash flow for projects without posing the risk of having a longer term than what public offtakers like schools and municipalities are allowed to contract for through a PPA, which would put the last years of incentive value at risk of being forfeited by the project.

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3) On competitive solicitation design:

No comment. Solar Landscape does not support this approach except for utility-scale grid supply projects, which we have limited experience with to date.

4) How can NJBPU prevent queue sitting or speculative project bids? In other words, what maturity requirements should NJBPU implement? Please consider, for example, minimum bidding requirements, escrow payments, etc. Should NJBPU require different maturity requirements for projects entering the competitive solicitation process versus the administratively-set incentive levels?

One approach to reduce the appeal of queue sitting is to ensure that incentive levels are not assigned via a capacity-block incentive structure. While it may make economic sense to tie recalculation of incentives to having reached certain capacity targets, this is a serious disadvantage to that approach and is why Solar Landsacpe recommends a time-based approach to recalculating incentive levels (every two years, as discussed above).

Other approaches Solar Landscape supports are requiring deposits (e.g., $10/kW), and requiring achievement of some basic development milestones including site control, demonstration of available interconnection capacity, etc. These will be discussed further in future comments in response to Staff's first Straw Proposal for the Successor REC.

5) The draft Capstone Report recommends that NJBPU maintain flexibility in program design, in order to respond to changing market circumstances and enable the integration of emerging technologies and new solar business models.

a. Generally, how can this flexibility be incorporated into the design of the Successor Program?
b. How should changes in the federal Investment Tax Credit or carbon-pricing policies be incorporated into future incentive level resets?
c. How should NJBPU account for potential changes to the PJM and FERC regulatory structures and capacity markets?

Solar Landscape believes a two-year recalculation cadence provides a good basis to keep the incentive level in line with the current economics of solar development. However, Staff could also allow for ad hoc recalculations in certain specified events, such as a policy change at the federal level. However, we stress that predictability and smoothness are paramount for the Successor REC and we therefore believe any ad-hoc recalculation should only be allowed under clearly specified circumstances.

6) The draft Capstone Report includes a SAM case for out-of-state utility-scale solar. Should NJBPU provide incentives to out-of-state utility solar through the Successor Program? If so, how, and under what conditions?

No comment.

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7) Is Cadmus' breakdown of SAM cases, as identified in Table 12 (p. 32), appropriate? Why or why not?

Staff should consider a case for Community Solar carport project type, as this is another viable way to enhance the use of developed areas to serve the community's renewable energy goals.

8) Please provide feedback on Cadmus' SAM model inputs, as identified in the draft Capstone Report and the supplemental modeling spreadsheet. In particular, please provide feedback on the following assumptions:

a. Modeled system size (Table 13, p. 34). For example, how could the adoption of the 2018 building codes and subsequent changes to residential systems setback requirements impact system size?

b. Installed costs (Table 17, p. 39). What are factors that could impact installed costs moving forward? Has Cadmus correctly identified installed cost assumptions for the out-of-state solar and community solar SAM cases?

Regarding installed cost of community solar versus non-community solar with same siting, Solar Landscape believes the $0.20/W added cost of community solar may be too low. Community Solar project costs may not adequately capture initial costs of obtaining subscribers. An added expense is included in the O & M for subscriber maintenance/management, but initial outreach to fully subscribe a project has emerged as a significant driver of upfront cost (upwards of $0.15/W); other unique costs include fulfilling commitments to the BPU in community solar applications for community enrichment initiatives like job training and community engagement.

Module cost assumptions also appear optimistic as many tier 1 manufacturers are quoting modules at .35/Watt or even higher, for higher watt class modules (400 W+), which are used to maximize system energy production.

c. Financial parameters, including interest rates and loan terms (Tables 19 and 20, p. 43).

d. Revenue assumptions. In particular, please comment on the ability to quantify projects' demand charge reduction (see Cadmus' modeling note on p. 45).

If demand charge reductions are applied to DO and TPO cases for behind the meter projects, these energy values should not carry through to community solar as these projects will not be able to offset demand of subscriber loads in the same manner as a behind the meter project.

Additionally, energy rate growth at ~2.5% appears too aggressive, and we instead recommend assuming a rate of 1 to 1.5%.

e. Specific energy production and energy degradation rate (see Cadmus' modeling note on p. 61).

The assumed specific energy production of systems is too high. Loss factors applied by financiers and third-party project owners are typically higher for items like shading, soiling, mismatch, light induced degradation, etc. Furthermore, Rooftop systems are often designed to

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optimized to maximize production per sq. ft, since space may be limited, and thus they will have a lower tilt angle (5 degrees) and higher row-to-row shading since they are more densely packed.

f. Investment Tax Credit ("ITC"). Should NJBPU assume that non-residential projects are able to safe harbor under the 2020 ITC at 26% (similar to the approach adopted in 2019 for the Transition Incentive Program)?Are the TI-ACP schedules proposed to be associated with each compliance entity option appropriate? If modifications are required, how should the schedules be adjusted and why?

Regarding the ITC, Staff should not assume the 2020 ITC rate has been preserved. Some percentage of projects will have safe harbored the 2020 ITC rate, but Staff's focus should be on providing an adequate incentive for additional projects to be built and not only those that benefit from a stronger tax credit. Furthermore, for community solar projects, safe harboring is challenge for developers since the program's round 2 pilot timing and the overall program size are still unclear. Community solar developers would have to take significant risks to safe harbor product without knowing what their anticipated project pipeline will look like.

Additionally, for any project where safe harbor is assumed, the project will incur a higher installation cost as there are expenses associated with early procurement of product for safe harboring, such as securely storing equipment.

9) Do you agree with Cadmus' derivation of wholesale and energy prices, as presented in Table 21 (p. 46)? If not, how would you recommend modifying Cadmus' approach?

No comment.

10) Cadmus provided different approaches to modeling the MW targets (see section 4.3, p. 50 - 56). How should NJBPU set the MW targets, while maintaining compliance with the legislative cost caps?

Solar Landscape's only comment on this topic is that not all MW's should be considered equal, and that Staff should therefore continue to incentive certain types of projects over others (e.g,, community solar over greenfield ground-mounted projects).

11) Cadmus recommends that NJBPU consider whether to differentiate treatment between direct-owned ("DO") projects and third-party owned ("TPO") projects. Please comment.

Solar Landscape does not have a strong opinion here, but we believe this may insert unnecessary complexity into the incentive design, as we believe the project economics are not dramatically impacted by this attribute of a solar project.

12) Please comment on the transparency and replicability of Cadmus' incentive modeling: if NJBPU were to implement an administratively determined incentive, could this model serve as the basis for setting the incentive value going forward? If not, what changes would need to be made to make it suitable?

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In Solar Landscape's opinion, the transparency and replicability of Cadmus' modeling are strong and the reliance on the SAM model is a good approach. We reserve more detailed comments on the actual assumptions made for the forthcoming Straw Proposal.

13) Please provide general feedback on Cadmus's modeling inputs, methodology, and assumptions not already addressed in a previous question.

Solar Landscape believes the following assumptions should be reconsidered:

1. *All Community Solar projects may incur property tax payments, including rooftop projects. The assumption that the system's energy will be offsetting the energy use of the facility where it is located is not necessarily true. Since community solar projects are scored higher for offsetting LMI residential subscribers, tenants of the large buildings where rooftop community solar projects are installed may not be targeted as subscribers.*

2. *PPA Price Escalation rate assumptions for community solar are probably too high at 2.46%. The energy portion of the underlying subscriber's utility rates may not grow that fast, and subscribers want to lock in rates where they are assured it will always be lower than their grid expense. Thus, in order to make a compelling offer to subscribers, developers need to offer fixed rates or lower escalators to give a subscriber confidence that their community solar subscription will remain cheaper than grid power in the long term.*

3. *As mentioned above, installation costs for community solar projects may not appropriately estimate the initial expense of fully subscribing the project, which can be significantly more expensive than a traditional PPA with only a single offtaker. Developing support infrastructure for a high volume of subscribers is costly.*

4. *Installation costs may also not factor in varying interconnection expenses over time. The successor program framework only captures interconnection expenses as seen in past installations, when there has been ample capacity on the grid to interconnect solar. As more solar is installed over time, these costs will continue to increase.*