

SOLAR SUCCESSOR STAKEHOLDER WORKSHOP #1: INCENTIVE PROGRAM DESIGN



PRESIDING OFFICER: ABE SILVERMAN

GENERAL COUNSEL, NEW JERSEY BOARD OF PUBLIC UTILITIES



OPENING REMARKS: PRESIDENT JOSEPH FIORDALISO



WELCOME AND LOGISTICS: ARIANE BENREY

OFFICE OF POLICY AND PLANNING, NJBPU



Meeting Logistics

- All attendees will be automatically muted and will be unmuted when called upon.
- Questions? Comments? Please use the **questions** function in Zoom.
- This meeting is being recorded. A copy of the recording and slides will be made available on the NJ Clean Energy Program website:
<https://njcleanenergy.com/renewable-energy/program-updates-and-background-information/solar-proceedings>

Agenda

Opening Session:

- 10:00 a.m. Meeting Start; Welcome and Introduction
- 10:15 a.m. BPU Staff Presentation

Morning Session: Administratively-Set Program

- 10:20 a.m. BPU Staff Presentation
- 10:30 a.m. Stakeholder comments and discussion

LUNCH BREAK 12:30 p.m. – 1:30 p.m. LUNCH BREAK

Afternoon Session: Competitive Solicitation Program

- 1:30 p.m. Staff Presentation
- 1:45 p.m. Stakeholder comments and discussion

Stakeholder Engagement

- The Solar Successor Program Straw Proposal was developed over 2 years of discussions.
- Stakeholders will discuss the Straw Proposal in four topic-specific workshops:
 - Workshop #1 (April 21): Incentive Program Design
 - Workshop #2 (April 26): Community Solar, Cost Cap and Capacity Targets
 - Workshop #3 (April 28): Solar Equity and Inclusion; Community Solar
 - Workshop #4 (May 3): Review of Current Proposal and Program Transition

Stakeholder Engagement

- Stakeholders may speak directly with Board Commissioners at the Quarterly Public Meeting on April 30, 2021.

See the Public Notice for details:

https://www.nj.gov/bpu/pdf/publicnotice/Notice_Quarterly%20Public%20Comment%20Meeting_April%2030_Solar.pdf

- “Open door policy”: email solar.transitions@bpu.nj.gov

Stakeholder Engagement

- Written comments: currently due by 5:00 p.m. on Thursday, May 13, 2021. Extension possible.

Must be submitted electronically to the Board Secretary or via the Board's External Access Portal

See the Straw Proposal Notice for details:

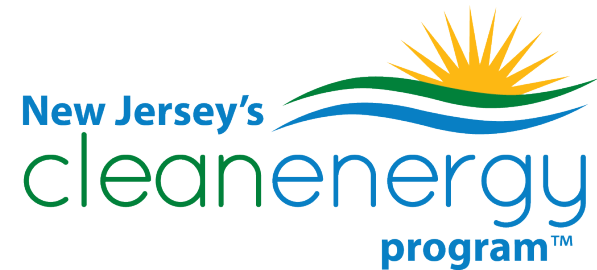
https://njcleanenergy.com/files/file/Solar%20Successor%20Program%20Notice%20and%20Straw%20Proposal_04-07-2021.pdf

- Questions? Email solar.transitions@bpu.nj.gov

OPENING REMARKS

HANNAH THONET

POLICY ADVISOR, OFFICE OF THE GOVERNOR



OVERVIEW: THE NEW JERSEY SOLAR TRANSITION



The Clean Energy Act of 2018

- Governor Murphy signed into law on May 23, 2018.
- Directed the Board to conduct a comprehensive revision of NJ's solar incentive program, known as the 2019/2020 Solar Transition:
 - ✓ Close the Legacy SREC Program
 - ✓ Complete a study that evaluates how to modify or replace the SREC program
 - ✓ Design and implement the Transition Incentive Program
 - ✓ Design and implement the Solar Successor Program

The 2019 Energy Master Plan

- New Jersey's Energy Master Plan was released on January 27, 2020.
- The EMP provides a pathway to achieve a pathway to 100% clean energy by 2050 (per Governor Murphy's Executive Order 28).
 - ✓ Modeling suggests an increase in solar capacity from approx. 3.5 GW today to 12.2 GW by 2030, 17.2 GW by 2035, and 32 GW by 2050.

The 2019/2020 Solar Transition

- The Board established the interim Transition Incentive (“TI”) Program in December 2019.
- On April 30, 2020, NJ attained the 5.1% solar generation milestone initiating the closure of the SREC Program. Projects registered in the SREC Program that had not reached commercial operation were transferred into the TI Program.*
- The TI Program has remained open to new registrations pending the development of the Successor Program.

Cadmus Capstone Report

- Cadmus provided the Board with analytical and modeling support throughout the Solar Transition, as summarized in two reports:
 - The *Transition Incentive Supporting Analysis and Recommendations* and Supplemental Addendums, regarding the structure and value of the TI Program.
 - The *New Jersey Solar Transition Capstone Report*, regarding policy design options for the Successor Program.

Solar Transition Principles

- **Create a long-term, durable solar incentive program that puts the State on a path toward meeting its goal of 100% clean energy by 2050.**
- **Support the continued growth of the solar industry while balancing ratepayer costs.**
- **Maintain a vibrant solar industry.**
- **Grow high-quality jobs.**

Solar Transition Principles

Staff drew upon the following general principles in developing recommendations on the design of the Successor Program, as outlined in the Successor Straw:

1. Provide maximum benefit to ratepayers at the lowest cost;
2. Support the continued growth of the solar industry;
3. Meet the Governor's commitment to 50% Class I Renewable Energy Certificates ("RECs") by 2030 and 100% clean energy by 2050;
4. Provide insight and information to stakeholders through a transparent process for developing the Solar Transition and Successor Program; and
5. Comply fully with the statute, including the implications of the cost cap.

Summary of Successor Straw Recommendations

- Staff's Straw Proposal recommendations include:
 - Incentives open to new solar resources.
 - Incentives as fixed payments per MWh produced for the clean energy attribute over a predetermined period of years.
- The value of the incentive would be determined based on project type:
 - **Administratively Determined** incentives for residential projects, net metered non-residential projects of 2 MW or less, and all community solar projects; and
 - **Competitively Determined** incentives for grid supply projects and net metered non-residential projects above 2 MW.

Summary of Successor Straw Recommendations

- Megawatt Targets: capacity targets initially informed by historical levels. They would be limited by budget caps based on a calculation of the statutory cost caps.

Project Type	Year 1 Capacity Target (MW)	Budget Cap (\$ Millions)
Residential Net Metered	150 MW	\$15 million
C&I Net Metered ≤ 2 MW (rooftop, carport, canopy)	110 MW	\$11 million
C&I Net Metered ≤ 2 MW (ground mount)	40 MW	\$4 million
Community Solar	150 MW	\$16 million
Non-Residential Net Metered > 2MW	40 MW	\$4 million
Basic Grid Supply	130 MW	\$6 million
Desired Land Use Grid Supply	130 MW	\$12 million
Total	750 MW	\$67 million



Summary of Successor Straw Recommendations

- Cost Cap Calculation

$$\left[\frac{\text{(Cost to Customers of the Class I Renewable Energy Requirement)}}{\text{(Total Paid for Electricity by all Customers in the State)}} \right] \times 100\%$$

- Forecasts for numerator and denominator calculation components lead to projected surplus or deficit in annual cost cap headroom.
- After methodology is finalized, the Board will use forecasts of future costs to estimate the Successor Program annual budget caps and MW targets. They will be adjusted via a true-up at the end of each Energy Year.

Summary of Successor Straw Recommendations

- The Community Solar Energy Pilot Program will be transitioned to a permanent program by February 2022.
- The Straw Proposal describes two primary options for the permanent program:
 - Option 1: rollover and continue the Pilot Program structure and design, using the competitive solicitation model.
 - Option 2: eliminate the competitive solicitation; implement a first-come, first-served selection model with very high requirements for entry.

ADMINISTRATIVELY DETERMINED INCENTIVE PROGRAM



Successor Program Incentive Design: Administratively Determined

- Eligible systems: net metered residential; net metered non-residential at or under 2MW; community solar.
- Available only to new projects.
- 15-year qualification life.
- Fixed incentive in \$/MWh.
- At the end of the qualification life, projects would be eligible to receive Class I RECs.
- Subject to availability of incentive.

Successor Program Incentive Design: Administratively Determined

- Staff recommends that projects be divided into the following market segments, with differentiated incentives:
 - Net Metered Residential (all types and sizes);
 - Net Metered Non-Residential Built Environment (rooftop, carport and canopy, 2 MW or less);
 - Net Metered Non-Residential (ground mount, 2 MW or less);
 - Community Solar; and
 - Community Solar that serves predominantly low- and moderate-income customers.

Successor Program Incentive Design: Administratively Determined

- Staff sees several benefits to this proposed design:
 - Using the TI structure allows for a relatively quick program implementation;
 - A fixed incentive structure that is known in advance is low-risk for developers;
 - Provides the Board with flexibility to adjust the incentive levels on a pre-determined schedule; and
 - Using portions of the TI framework creates a manageable transition for the industry from the TI to the Successor Incentive Program.

Successor Program Incentive Design: Administratively Determined

- Project Qualification and Maturity Requirements: registration will mandate sufficient maturity requirements to prevent “ghost” projects.
- Completion Deadlines: 12 months from issuance of a conditional registration acceptance letter (+ one 6-month extension); 18 months for community solar projects (+ one 6-month extension).
- Quarterly “first come, first served” windows to allocate available capacity.
 - If a window is filled, no additional applications will be accepted until the next quarter.
 - Each quarter will be assigned 25% of the total annual capacity.
- Administration: similar to TI program.

Successor Program Incentive Design: Administratively Determined

- Incentive values for each of the market segments will be initially established guided by the modeling conducted by Cadmus in the Capstone Report.
- The incentive values would be reset via a public proceeding every 3 years, 9 months prior to the start of the next 3-year incentive period.

Successor Program Incentive Design: Administratively Determined

- Preliminary incentive-setting assumptions:
 - Modeling was conducted targeting the 50th percentile of estimated project costs, using the SREC Registration Program (SRP) and TI data provided to the New Jersey Clean Energy Program;
 - Net metered incentive levels would be based on the lower of the third party-owned or host-owned modeled incentive values;
 - Modeling used PSE&G retail rate modeling assumptions.

Successor Program Incentive Design: Administratively Determined

- Initial Proposed Incentive Values for First Three-Year Period

Market Segment	Proposed Incentive Value (\$/MWh)	Proposed Megawatt Targets
Net Metered Residential (all types and sizes)	\$85.00	150 MW
Net Metered Non-Residential 2MW or less (rooftop, carport, canopy)	\$85.00	110 MW
Net Metered Non-Residential 2MW or less (ground mount)	\$85.00	40 MW
Community Solar non-LMI	\$70.00	Community solar total: 150 MW
Community Solar LMI	\$90.00	



Successor Program Incentive Design: Administratively Determined

Discussion Session #1: Program Structure and Eligibility

- Please comment on the proposed breakdown of market segments.
- Please comment on the proposed use of quarterly capacity targets. (*N.B.* MW targets to be discussed later).
- Do you agree with allocating capacity on a first-come, first-served basis?
- How should the Board handle over-subscription of available capacity?
- What different or additional measures could the Board take to ensure that there is sufficient opportunity to participate in the incentive program throughout the year?

Successor Program Incentive Design: Administratively Determined

Discussion Session #1 (*continued*)

- What maturity requirements should the Board set? How should the Board address “ghost projects” or “queue sitting”?
- Please comment on the proposed completion deadlines (12 and 18 months, depending on project type).
- Please comment on the proposal to require an escrow deposit for extension requests.

Successor Program Incentive Design: Administratively Determined

Discussion Session #2: Proposed Incentive Values

- Please comment on Staff's proposal to set incentive values in three-year increments.
- Please comment on the proposed mechanism for re-setting incentive values.
- Please comment on the proposed incentive levels, focusing on specific modeling assumptions.

Market Segment	Proposed Incentive Value (\$/MWh)	Proposed Megawatt Targets
Net Metered Residential (all types and sizes)	\$85.00	150 MW
Net Metered Non-Residential 2MW or less (rooftop, carport, canopy)	\$85.00	110 MW
Net Metered Non-Residential 2MW or less (ground mount)	\$85.00	40 MW
Community Solar non-LMI	\$70.00	Community solar total: 150 MW
Community Solar LMI	\$90.00	

Successor Program Incentive Design: Administratively Determined

Discussion Session #3: Other Issues

- What are the benefits and consequences of allowing or prohibiting behind-the-meter projects in non-EDC territories to participate in the Successor Program?

QUESTION & ANSWER



POLL: SPEAKERS LIST



**LUNCH BREAK
MEETING WILL RESUME AT 1:30 P.M.**



COMPETITIVE SOLICITATION PROGRAM



Successor Program Incentive Design: Competitive Solicitation

- Eligible systems: all grid supply projects and net metered non-residential projects above 2 MW.
- 15-year qualification life.
- Available only to new projects.
- Projects would receive a fixed incentive in \$/MWh.
- At the end of the qualification life, projects would be eligible to receive Class I RECs.

Successor Program Incentive Design: Competitive Solicitation

- Staff proposes the following market segments, each with separate solicitations and clearing prices:
 - Basic grid supply;
 - Grid supply on desirable land uses;*
 - Grid supply projects paired with storage; and
 - Net metered non-residential above 2 MW.

*Desirable land use includes categories such as the built environment and contaminated land.

Successor Program Incentive Design: Competitive Solicitation

- Solicitations would be conducted annually by an independent solicitation administrator.
- Staff proposes that the Board set a budget-based cap for each segment.
- Developers or owners would bid in an incentive value and MW capacity for the project within the market segment for which they qualify.
- Offers would be ranked from least to most expensive and selected until the budget-based cap is reached.
- Selected projects would have a completion deadline of 24 months.

Successor Program Incentive Design: Competitive Solicitation

- Maturity Requirements for Discussion:
 - A completed system impact study from PJM or completed interconnection study;
 - Demonstrated site control;
 - Posting of an escrow equal to \$40/kilowatt (dc).
- Quarterly milestone reporting forms.
- Projects would be eligible for one, twelve-month extension upon posting of an additional escrow of \$40/kWdc.

Successor Program Incentive Design: Competitive Solicitation

- Staff sees several benefits to this proposed design:
 - Ensures that ratepayers are incentivizing the projects seeking the lowest incentive contribution;
 - Incentive values will be flexible and reflective of the most recent market conditions;
 - Provides a relatively low-risk incentive structure for developers; and
 - By providing a fixed incentive, but requiring projects to remain merchant in the energy market, the Board would still provide developers a clear incentive to maximize the value of the energy they produce.

Successor Program Incentive Design: New Programs and Technologies

- Energy Storage: program to be implemented in two phases.
- Phase 1: Grid Supply Solar + Storage Hybrid Systems eligible for separate tranche in competitive solicitation.
- Phase 2: Separate stakeholder process.

Successor Program Incentive Design: Solar Siting

- The Successor Program's design seeks to uphold the state's policies of expanding access to affordable renewable energy while preserving open space and farmland.
- Staff will adopt rules and regulations establishing siting criteria and preferences that would apply to all projects eligible to participate in the competitive solicitations and community solar projects.
- The rules will aim to reasonably minimize adverse environmental impacts and limit development on prime agricultural lands, consistent with affordability concerns.

Successor Program Incentive Design: Solar Siting

- Siting for solar facility projects would not be permitted on parcels of land within the following categories:
 - Preserved farmland;
 - Land preserved under the Green Acres Program;
 - Land located within the preservation area of the Pinelands area;
 - Land designated as forest area in the Pinelands comprehensive management plan;
 - Lands located within the Highlands preservation area;
 - Land designated as freshwater wetlands, coastal wetlands, or forested lands; and
 - Prime agricultural soils and soils of statewide importance (as identified by the USDA-Natural Resources Conservation Service) that are located in Agricultural Development Areas.

Successor Program Incentive Design: New Programs and Technologies

- Dual-Use Agriculture (“agrivoltaics”): Staff proposes to establish a pilot program to test the development of grid supply solar projects that are compatible with ongoing agricultural or horticultural use.
- NJBPU would collaborate with the NJ Department of Environmental Protection, the NJ Department of Agriculture, and the State Agricultural Development Committee to establish the parameters for accepting dual-use projects into the competitive solicitation.

Successor Program Incentive Design: Competitive Solicitation

Discussion Session #1: Program Eligibility

- Please comment on the proposed solicitation tranches.
- Please comment on the proposed 15-year qualification life.
- Please comment on the proposed maturity requirements and escrow deposit.
- How can the program avoid a “race to the bottom” that results in poor quality projects?

Successor Program Incentive Design: Competitive Solicitation

Discussion Session #2: Competitive Solicitation

- Please comment on the overall approach of using a competitive cost-based bidding process to select projects.
- Please comment on the proposed solicitation structure and bid selection process.
- Should selected projects receive an incentive value that is set via pay-as-bid or a single clearing price?

Successor Program Incentive Design: Competitive Solicitation

Discussion Session #3: Solar + Storage; Solar Siting; Other Issues

- Please comment on Staff's proposal for solar + storage in the competitive solicitation.
- Please suggest the best way to evaluate different size storage + solar projects.
- Please discuss the feasibility of aggregating smaller projects paired with storage into the competitive solicitation.
- Please provide any suggestions for how to evaluate dual-use or agro-voltaic projects.
- Please comment on Staff's proposal for solar siting in the competitive solicitation.

QUESTION & ANSWER



POLL: SPEAKERS LIST



NEXT STEPS



Next Steps

- Topic-specific workshops:
 - Workshop #1 (April 21): Incentive Program Design
 - Workshop #2 (April 26): Community Solar, Cost Cap and Capacity Targets
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Next Steps

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MEETING CLOSE

