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 or 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
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
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/Public%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:

• Questions? Email solar.transitions@bpu.nj.gov
OVERVIEW: THE NEW JERSEY SOLAR TRANSITION
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
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 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.

*some exceptions apply
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.

<table>
<thead>
<tr>
<th>Project Type</th>
<th>Year 1 Capacity Target (MW)</th>
<th>Budget Cap ($ Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Net Metered</td>
<td>150 MW</td>
<td>$15 million</td>
</tr>
<tr>
<td>C&amp;I Net Metered ≤ 2 MW (rooftop, carport, canopy)</td>
<td>110 MW</td>
<td>$11 million</td>
</tr>
<tr>
<td>C&amp;I Net Metered ≤ 2 MW (ground mount)</td>
<td>40 MW</td>
<td>$4 million</td>
</tr>
<tr>
<td>Community Solar</td>
<td>150 MW</td>
<td>$16 million</td>
</tr>
<tr>
<td>Non-Residential Net Metered &gt; 2MW</td>
<td>40 MW</td>
<td>$4 million</td>
</tr>
<tr>
<td>Basic Grid Supply</td>
<td>130 MW</td>
<td>$6 million</td>
</tr>
<tr>
<td>Desired Land Use Grid Supply</td>
<td>130 MW</td>
<td>$12 million</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>750 MW</strong></td>
<td><strong>$67 million</strong></td>
</tr>
</tbody>
</table>
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.
• 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.
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

<table>
<thead>
<tr>
<th>Market Segment</th>
<th>Proposed Incentive Value ($/MWh)</th>
<th>Proposed Megawatt Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Metered Residential (all types and sizes)</td>
<td>$85.00</td>
<td>150 MW</td>
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<tr>
<td>Net Metered Non-Residential 2MW or less (rooftop, carport, canopy)</td>
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<tr>
<td>Community Solar non-LMI</td>
<td>$70.00</td>
<td>Community solar total: 150 MW</td>
</tr>
<tr>
<td>Community Solar LMI</td>
<td>$90.00</td>
<td></td>
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</table>
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?
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.
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.

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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?
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.
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.
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.
• 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.
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?
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?
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.
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
  • Workshop #3 (April 28): Solar Equity and Inclusion; Community Solar
  • Workshop #4 (May 3): Review of Current Proposal and Program Transition
• Stakeholders may speak directly with Board Commissioners at the Quarterly Public Meeting on April 30, 2021.

• Written comments are currently due Thursday, May 13 at 5:00 p.m.

• Questions? Please email solar.transitions@bpu.nj.gov
MEETING CLOSE