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CLEAN ENERGY

IN THE MATTER OF A SOLAR SUCCESSOR )  
INCENTIVE PROGRAM PURSUANT TO P.L. )  
2018, C.17 ) ORDER  
)  
) DOCKET NO. QO20020184  
)  
)

**Parties of Record:**

BY THE BOARD:

By this Order, in conjunction with a series of rulemakings in other related dockets, the New Jersey Board of Public Utilities (“Board” or “BPU”) creates and implements a new solar incentive program for the State of New Jersey. The Board is charged by Governor Murphy and the Legislature through a series of executive orders, policies, and most recently through the enactment of a comprehensive new solar law (“Solar Act of 2021” or the “Act”), with affordably growing the State’s solar industry, increasing green jobs, and continuing New Jersey’s commitment to making solar accessible for low-and moderate-income (“LMI”) consumers.<sup>1</sup> This Order is the product of a multi-year effort to continue the fight against climate change by increasing the supply of electricity that New Jersey consumers receive from clean solar energy and to bring down the costs of solar generation in the State.

The Board’s solar programs are important contributors to jobs and to the high quality of life in New Jersey. The solar industry employs an estimated 5,384 New Jerseyans, supporting both the local and national solar industries.<sup>2</sup> While the economic and environmental benefits of New Jersey’s first 3.6 gigawatts (“GW”) of solar have been significant, the solar successor incentive program is expected to have an even larger impact. The Solar Act of 2021 directs the Board to effectively double the growth of the Board’s existing solar program and directs incentives targeting up to 3,750 megawatts (“MW”) of solar generation by 2026.<sup>3</sup> The Act includes the creation of two parallel incentive structures, one to incent “net metered” facilities 5 MW and less and “community solar” facilities, and the other to incent “grid supply” solar facilities and net metered facilities over 5 MW.

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<sup>1</sup> L. 2021, c. 169 (signed July 9, 2021).

<sup>2</sup> Job numbers from the National Solar Jobs Census Report Data, 2020.

<sup>3</sup> All solar capacity numbers are in direct current, or “dc”.

The Board's new program, called the Successor Solar Incentive ("Successor" or "SuSI") Program is divided into two components: the Administratively Determined Incentive ("ADI") Program for net metered residential facilities, net metered non-residential facilities of 5 MW or less, and community solar facilities, and the Competitive Solar Incentive ("CSI") Program for grid supply solar projects (i.e., those selling into the wholesale markets) and net metered non-residential projects above 5 MW in size. The ADI Program opens to new registrants 30 days after the issuance of this order, while the CSI Program will be the subject of a further stakeholder proceeding and is expected to launch in early 2022. Both the ADI and CSI programs will provide one "New Jersey Solar Renewable Energy Certificate-II," or "NJ SREC-II," for each megawatt-hour ("MW-hour") of solar electricity produced from a qualifying facility. The value of each qualifying facility's NJ SREC-IIs will be set administratively in the case of the ADI Program, and via a competitive process in the case of the CSI Program.

Once fully implemented over the next several years, the Board's SuSI Program will help cement New Jersey's national leadership in the battle against climate change and the State of New Jersey as a magnet for green jobs.

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## **BACKGROUND AND PROCEDURAL HISTORY**

### ***The State of Solar in New Jersey***

The state of solar in New Jersey is very strong, with near-record levels of solar expected to be added to the New Jersey grid over the next 12 months. This is in keeping with New Jersey's long-standing position as a national leader in solar development, despite its relatively small size, population density, and lower solar insolation values relative to some of the western and southern states.<sup>4</sup> The State's aggressive clean energy policies have resulted in almost 136,000 residential solar installations, representing over 1,144 MW (as of June 30, 2021), and over 7,550 commercial and industrial installations, representing over 1,732 MW (as of June 30, 2021). Grid supply solar, which is poised for additional growth under the competitive portion of the SuSI program but has traditionally been disfavored by State statute, accounts for over 763 MW installed through June 30, 2021. New Jersey had the seventh largest installed solar capacity in the country,<sup>5</sup> including a total of almost 3,655 MW of installed solar capacity as of June 30, 2021 and over 770 MW in the pipeline.<sup>6</sup>

The amount of solar under development in New Jersey has continued to grow at near-record levels in 2021, despite the significant regulatory changes involved in the transition from the Solar Renewable Energy Certificate ("SREC") Program to the Transition Incentive ("TI") Program, and the enormous challenges caused by the COVID-19 global pandemic. Despite these challenges, more solar is scheduled to come online in the next 12 months than in almost any year on record. Concurrently, solar incentive levels have declined by 30% to 58% for new projects (depending on the value of the Transition Renewable Energy Certificate ("TREC"), compared to recent SREC values) demonstrating significant progress toward the goal of controlling ratepayer costs. Based on data through June 30, 2021:

- There is a total of 770 MW of projects in the pipeline, representing over 14,000 projects. While not all of these projects are expected to reach commercial operation, this represents a significant jump in pipeline registrations in recent months. For comparison, on December 31, 2019 there were almost 12,000 projects in the pipeline, totaling 508 MW, and on December 31, 2020 there were just over 12,500 projects, totaling 532 MW.
- The growth in the net metered non-residential market segment has been particularly robust: there are currently 460 MW of commercial and industrial projects in the pipeline, which Staff expects will be installed over the next year, which will lead to record or near-record installation rates for this type of installation in 2021 and 2022.<sup>7</sup>

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<sup>4</sup> Solar insolation is a measure of solar radiation energy received on a given surface area in a given time and can be affected by such variables as weather, time of day, the angle of the sun, altitude, and geographic location.

<sup>5</sup> Solar Energy Industries Association, Top 10 Solar States (last visited July 28, 2021), available at [https://www.seia.org/sites/default/files/2021-06/SEIA\\_Top10\\_Solar\\_States\\_2021-Q2.pdf](https://www.seia.org/sites/default/files/2021-06/SEIA_Top10_Solar_States_2021-Q2.pdf).

<sup>6</sup> New Jersey Board of Public Utilities, Solar Activity Reports, available at: <https://www.njcleanenergy.com/renewable-energy/project-activity-reports/project-activity-reports>.

<sup>7</sup> In 2017, 2018 and 2020, New Jersey saw 133 MW, 137 MW, and 132 MW, respectively, of commercial and industrial net metered solar generation installed. 2019, was an exceptional year for the commercial net metered market with 231 MW installed, driven by a combination of favorable federal tax policy and the imminent closure of the SREC registration program.

- There is 113 MW of grid supply capacity currently in the pipeline. There are also 197 MW of subsection (t) applications currently pending review by the Board that are not yet reflected in the TI pipeline data. This means that there are currently 310 MW of grid supply projects currently in some stage of development which, if all reach commercial operation, would increase the total amount of grid supply solar installed in the State by over 40%.
- New monthly registrations in 2021 (Jan – June), measured on a nameplate MW basis, are up 28% compared to the same period in 2019, which was the best year for solar ever in New Jersey. Registrations in this first six month period in 2021 are equal to 75% of the new registrations in the entire year of 2019.

In addition, New Jersey's Community Solar Energy Pilot Program ("Community Solar Program" or "Pilot Program"), which has been a national model for ensuring that LMI customers have access to the benefits of solar, continues to out-perform estimates. Staff now anticipates that most of New Jersey's first round of community solar projects, which were awarded in December 2019 and total more than 70 MW, will reach commercial operation by end of 2021 or the middle of 2022. In the second year of the Pilot Program, the Board announced the doubling of Community Solar Program to 150 MW per year and again received far more applications than there is availability in the program.

Importantly, every project selected in the first round of the Pilot Program has ensured that a majority of its subscribers are LMI customers, in line with New Jersey's commitment to ensuring that all customers, regardless of income level, have access to the benefits of solar. The Board has expressed its commitment to ensuring that community solar remains a vehicle for providing better access to solar for LMI residents.

### ***History of New Jersey's Solar Incentives***

New Jersey has a long history of encouraging the development of solar energy production in the State. The Electric Discount and Energy Competition Act, N.J.S.A. 48:3-49 et seq. ("EDECA"), enacted in 1999, first established the Renewable Portfolio Standards ("RPS") by mandating that increasing percentages of Class I renewable energy sources be included in all retail electricity sold by Board-regulated Third Party Electricity Suppliers ("TPS") and Basic Generation Service ("BGS") providers (collectively, "TPS/BGS providers"). Additionally, EDECA mandated retail electric power suppliers to offer net metering of wind and solar to all residential and small commercial customers. Initially, EDECA set the State's RPS goal for NJ Class I renewables at 4.0% of kilowatt hours sold by January 1, 2012, that goal has increased over time. The Clean Energy Act of 2018 ("Clean Energy Act" or "CEA") sets the RPS requirement at 21% by January 2020, 35% by January 2025, and 50% by January 2030.

The Board's RPS regulations, N.J.A.C. 14:8-2.1 et seq., implement these statutory provisions. The rules specify separate minimum percentages for solar electric generation, Class I renewable energy, and Class II renewable energy as each of these categories of renewable energy is defined by N.J.A.C. 14:8-1.2. To comply with the solar electric generation portion of the RPS, TPS/BGS providers obtain and retire SRECs, and since May 1, 2020, TRECs. An SREC or a TREC represents the environmental benefits or attributes of one megawatt-hour of solar electric generation. N.J.A.C. 14:8-2.2. A supplier or provider who holds too few SRECs to meet the RPS can make up for the shortfall by paying a Solar Alternative Compliance Payment ("SACP"). N.J.A.C. 14:8-2.3(e); N.J.A.C. 14:8-2.10.

Starting with its authorization of the creation of SRECs for rebated solar projects in 2004 and a pilot SREC-only registration program in 2007<sup>8</sup> that was codified in rules in 2012,<sup>9</sup> the Board used the SREC Registration Program (“SRP” or “SREC Program”) as the mechanism for qualifying project incentive eligibility for solar owners, developers, and installers. The SRP required that in addition to any statutory or other regulatory requirements, solar projects be registered in a timely manner and fulfill all requirements of that program to receive a New Jersey Certification Number and become eligible to create SRECs on the basis of generated electricity. The SREC Program, as a market-based incentive program, is generally recognized as having been very successful in stimulating the development of solar generation in New Jersey, but was ultimately determined to be too costly to ratepayers. As discussed further below, the Board closed the SREC Program in May 2020 pursuant to a legislative directive.

### ***Clean Energy Act of 2018***

New Jersey Governor Phil Murphy signed the Clean Energy Act into law on May 23, 2018. Among other things, the Clean Energy Act directs the Board to fundamentally reshape New Jersey’s solar incentive programs, culminating in the creation of a long-term, durable solar incentive program that puts the State on a path toward meeting its goal of 100% clean energy by 2050. As noted above, the CEA implements that goal in large part by significantly increasing the RPS requirements: it mandates that, by January 1, 2020, 21% of kilowatt-hours (“kWh”) sold in the State be from Class I renewable energy sources and increases this percentage to 35% by January 1, 2025, and to 50% by January 1, 2030.

The CEA directs the Board to adopt rules and regulations to close the SRP to new applications once the Board determined that 5.1 percent of the kWh sold in the State by TPS/BGS providers had been generated by solar electric power generators connected to the distribution system (“5.1% Milestone”). In addition, the CEA directs the Board to complete a study that evaluates how to modify or replace the SREC Program to encourage the continued efficient and orderly development of solar renewable energy generating sources throughout the State. The Board fulfilled this requirement in a report submitted to the Legislature in January 2021, discussed more fully below. Furthermore, the CEA codifies the priority that ratepayer funds be used prudently and efficiently by setting a limit on the expenditures that may be made to incentivize renewable energy. The CEA establishes a statutory Cost Cap (“Cost Cap”) at N.J.S.A. 48:3-87(d), that prohibits the cost of the Class I renewable energy requirement (excluding the cost of offshore wind renewable energy certificates, or “ORECs”) from amounting to more than 9% of the total paid for electricity by customers in the State during Energy Years (“EY”) 2019, 2020, and 2021 and to more than 7% of that cost during subsequent EYs. The Cost Cap was amended in January 2020 to provide the Board with more flexibility in its implementation,<sup>10</sup> and further amended as part of the Solar Act of 2021 to include new directives on how to calculate the costs and associated

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<sup>8</sup> In re Renewable Portfolio Standard - Recommendations For Alternative Compliance Payments And Solar Alternative Compliance Payments For Energy Year 2008. A Stakeholder Process Regarding Alternative Compliance Payment And Solar Alternative Compliance Payment Levels For Energy Years 2009 And 2010 Or Longer, And a Solar REC-Only Pilot, BPU Docket. No. EO06100774, Order dated January 19, 2007.

<sup>9</sup> 44 N.J.R. 1703(a) (June 4, 2012).

<sup>10</sup> See S. 4275 (2018), L. 2019, c. 448

benefits of the portions of the Class I renewable energy requirement covered by the Cost Cap.<sup>11</sup>

### ***New Jersey's 2019 Energy Master Plan***

New Jersey's 2019 Energy Master Plan ("EMP"),<sup>12</sup> which has the subtitle "Pathway to 2050," includes a pathways analysis to reach 100% clean energy by 2050. That analysis identified a target for 32 GW of total solar installed by 2050. Modeling from New Jersey's Integrated Energy Plan, completed as part of the larger EMP, suggests that New Jersey should seek to install 5.2 GW of solar by 2025, 12.2 GW by 2030, and 17.2 GW by 2035 to put New Jersey on a least-cost path to 100% clean energy by 2050. Meeting these goals will provide solar installers and companies more opportunities than ever as the Board implements programs designed to reach the ambitious goals of the 2019 EMP and the Clean Energy Act.

### ***Transition Incentive Program***

The Board approved New Jersey's Transition Incentive ("TI") Program on December 6, 2019<sup>13</sup> to provide a "transition" between the SREC Program and a successor incentive program. The closure of the SREC market was mandated by the Clean Energy Act, which required the Board to adopt rules and regulations to close the SREC program to new entrants once solar generation reached 5.1 percent of total retail sales, and no later than June 1, 2021. The Board found that solar generation reached the target level on April 30, 2020, and the SREC market was closed to new entrants as of that date.

The key feature of the TI Program was the creation of a new solar incentive, the TREC. A qualifying project receives one TREC for each MW-hour of qualified solar production for 15 years. The TRECs are purchased and retired by the electric distribution companies ("EDCs") on behalf of TPS/BGS providers as a part of New Jersey's RPS. While the program established a "base" TREC value of \$152/MW-hour of eligible solar generated, the value of each TREC assigned to an individual project varies, based on the type of project and the "factor" assigned to that project class by the Board's implementing orders and subsequent rules. The value of each TREC is calculated by multiplying the base compensation rate of \$152/MW-hour by the project's assigned factor, as shown in the chart below:

Table 1: TREC Project Types and Factors

<b>Project Type</b>	<b>Factor</b>	<b>TREC Incentive Value (per MW-hour)</b>
Subsection (t): landfill, brownfield, areas of historic fill	1.0	\$152.00
Grid supply (Subsection (r)): rooftop	1.0	\$152.00
Net metered non-residential rooftop and carport	1.0	\$152.00
Community solar	0.85	\$129.20
Grid supply (Subsection (r)): ground mount	0.6	\$91.20

<sup>11</sup> See N.J.S.A. 48:3-87(d)(2).

<sup>12</sup> New Jersey Board of Public Utilities, *2019 New Jersey Energy Master Plan: Pathway to 2050*. Available at [https://nj.gov/emp/docs/pdf/2020\\_NJBPU\\_EMP.pdf](https://nj.gov/emp/docs/pdf/2020_NJBPU_EMP.pdf).

<sup>13</sup> *In re a New Jersey Solar Transition Pursuant to P.L. 2018, c. 17*, BPU Docket No. QO19010068, Order dated December 6, 2019, available at: <https://www.bpu.state.nj.us/bpu/pdf/boardorders/2019/20191206/12-6-19-8B.pdf>.



<b>Project Type</b>	<b>Factor</b>	<b>TREC Incentive Value (per MW-hour)</b>
Net metered residential ground mount	0.6	\$91.20
Net metered residential rooftop and carport	0.6	\$91.20
Net metered non-residential ground mount	0.6	\$91.20

The TI Program was designed to be a temporary program that would remain in effect only until the Board opened the new Successor Program, which is being done in this Order and its companion orders. In a companion order on today’s agenda (Docket No. QO19010068), the Board proposes to make that determination to close the TI Program to new applicants 30 days from today, i.e. at 11:59:59 p.m. on August 27, 2021, as explained more fully in that proceeding.

***Solar Acts of 2021: SREC-IIs and Dual-Use Solar***

On June 9, 2021, Governor Murphy signed the Solar Act of 2021. The Solar Act directs the Board to establish a program to incent the development of 3,750 MW of solar by 2026. On the same day, the Governor also signed a bill directing the Board to develop a pilot program for Dual-Use Solar facilities (also known as “agrivoltaics”) that locate solar on productive farmlands (“Dual-Use Act”).<sup>14</sup> The Solar Act of 2021 and the Dual-Use Act both build on the Clean Energy Act of 2018 and continue the focus on transitioning New Jersey to a clean energy future.

The Solar Act of 2021 complements the work that the Board has undertaken starting in 2018 to develop a new solar incentive program through an open stakeholder process. Specifically, the Act directs the Board to target the development of at least 300 MW of net metered solar annually between now and 2026, at least 150 MW of community solar annually, and an average of 300 MW of grid scale solar annually over the same period. Additionally, the Act directs that the Board take steps to ensure that the costs of the solar incentives issued pursuant to the ADI Program, along with other Class I REC incentives, remain within specified limits (i.e. the Cost Cap), and provides the Board additional direction on how to calculate the costs of the covered Class I REC programs.<sup>15</sup> Contemporaneously with this Order, the Board is also proposing new rules governing the calculation of the costs and benefits of the Class I renewable energy requirement.

***Stakeholder Process: 2018 - Present***

The SuSI Program is a culmination of almost three years of extensive stakeholder engagement.

With the support of Cadmus Group, LLC (“Cadmus” or “Consultant”), Staff has placed special emphasis on conducting thorough and multi-faceted outreach to stakeholders.<sup>16</sup> Since December

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<sup>14</sup> L. 2021, c.170.

<sup>15</sup> Specifically, the Solar Act of 2021 directs the Board to “reflect any energy and environmental savings attributable to the Class I program in its calculation, which shall include, but not be limited to, the social cost of carbon dioxide emissions at a value no less than the most recently published three percent discount rate scenario of the United States Government Interagency Working Group on Social Cost of Greenhouse Gases.” N.J.S.A. 48:3-87(d)(2).

<sup>16</sup> A full summary of the stakeholder engagement is provided by the New Jersey Clean Energy Program, Clean Energy

2018, this has included Consultant-led workshops to discuss various options for solar incentive program structures, Staff-led stakeholder meetings on specific topics relating to the Solar Transition, cost surveys to inform modeling assumptions, focus groups with representative stakeholders, and robust discussions on the *New Jersey Solar Transition Capstone Report* (“Capstone Report”).

### *Cadmus Capstone Report*

One of the key mandates of the Clean Energy Act is the completion of a study that evaluates how to modify or replace the SREC Program to encourage the continued efficient and orderly development of solar throughout the State.

The Board contracted Cadmus to provide analytical and modeling support throughout the Solar Transition process. The results of their analysis are summarized in two reports.

1. The *Transition Incentive Supporting Analysis & Recommendations* (last revision on August 14, 2019) and supplemental Addendums dated September 25, 2019 and November 13, 2019 summarized the iterative process of developing recommendations for the structure and value of the TI Program.
2. The *Capstone Report* is a comprehensive analysis of policy design options for the Successor Program. A draft Capstone Report was published for stakeholder feedback on August 11, 2020. The final Capstone Report was presented to the Board and subsequently submitted to the Legislature on January 7, 2021. For further information about the process, see the Capstone Report Section 2.2: Overview of Stakeholder Engagement in the Solar Transition.

### *April 2021 Public Stakeholder Meetings and Dialog with Stakeholders*

In April 2021 the Board provided notice of a Staff Straw Proposal<sup>17</sup> and for a series of four stakeholder workshops on the Solar Successor program, later adjusted to five workshops, on the following topics:

- April 21, 2021 - Workshop 1: Incentive Program Design;
- April 26, 2021 - Workshop 2: Community Solar, Cost Cap, and Capacity Targets;
- April 28, 2021 - Workshop 3: Solar Equity and Inclusion; Community Solar;
- May 3, 2021 - Workshop 4: Incentive Values Modeling and Recommendations; and

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Act Solar Transition Stakeholder Process (last visited July 28, 2021), available at <https://njcleanenergy.com/renewable-energy/program-updates-and-background-information/solar-proceedings>.

<sup>17</sup> Board of Public Utilities, New Jersey 2019/2020 Solar Transition, Solar Successor Program: Staff Straw Proposal, Docket No. QO20020184 (updated May 5, 2021), available at <https://www.nj.gov/bpu/pdf/publicnotice/Solar%20Successor%20Program%20Notice%20and%20Straw%20Proposal.pdf>.

- May 14, 2021 - Workshop 5: Review of Current Proposal and Program Transition

Each of the stakeholder meetings involved specific discussion topics, a presentation by Staff, and open comment period to hear from interested stakeholders. The recordings and materials presented at each of the five stakeholder meetings are available on the Board's website at <https://njcleanenergy.com/renewable-energy/program-updates-and-background-information/solar-proceedings>.

The Board further provided stakeholders with an opportunity to submit written comments on the subject until May 27, 2021. In addition to the formal stakeholder meeting process, Board Staff also conducted an "open door" policy for people or organizations wishing to discuss issues directly with Staff. Finally, the full Board held a quasi-legislative public meeting on April 30, 2021, where interested stakeholders were permitted to address the members of the Board directly on matters related to the Successor Program and the health of the solar industry generally.

### Comments and Written Responses

The BPU received 102 written comments from a wide range of stakeholders, including the New Jersey Division of Rate Counsel ("Rate Counsel"), representatives of all sectors of the solar industry, utility companies, public entities, labor unions, solar customers, agricultural boards, environmental organizations, and members of the general public. All of the comments filed in this proceeding are available through the Board's website, through the Public Access System. Commenters provided thoughtful and comprehensive comments on a wide array of solar program matters. In addition to general comments, many stakeholders provided feedback on 42 questions that were included in the Straw Proposal as topics on which Staff requested specific feedback. Additionally, over the course of the stakeholder proceedings, Staff requested comment on various additional topics during specific stakeholder meetings.

1. Overall Incentive Program Design (Question 1 in the Straw Proposal)
2. Eligibility and segmentation of small net metered and all community solar projects (Question 2)
3. Incentive levels and qualifying period for the ADI Program (Questions 3,4 and 9)
4. Adders for special cases (Questions 35 – 36)
5. Short term transition incentive for solar on contaminated lands (Raised during proceedings)
6. Projects in non-EDC territories (Question 10)
7. New programs and technologies (Questions 16 – 21)
8. Solar Siting (Questions 22 – 26)
9. Competitive solicitation model for all grid supply projects and large net metered projects (Questions 11 – 15)
10. Community Solar Permanent Program (Questions 39 – 41)
11. MW Targets (Questions 27 – 29)
12. Equity (Questions 37 – 38)
13. Registration process for the Successor Program (Questions 5 – 8)
14. Implementing the Successor Program and Transitioning from the TI Program (Question 34)
15. Cost Cap Calculation (Questions 30 – 33)
16. Solar 4 All Program (Raised in proceedings)
17. Bonus Question on Naming the new Incentives (Question 42)

Each commenter's suggestions and concerns were reviewed by Board Staff.

In general, the comments reflected a robust debate about the structure of the program, with most solar developers and customers favoring an administratively set incentive, while Rate Counsel, several utilities and most environmental organizations expressed a strong preference for competitive solicitations.

Please refer to Appendix A for all questions and a detailed discussion of the comments received. Staff recommends that any requests, suggestions, or issues raised by stakeholders that are not specifically addressed in this Order be denied.

### **GENERAL PRINCIPLES UNDERLYING THE SUCCESSOR SOLAR INCENTIVE PROGRAM**

The Successor Program represents the next step in the history of New Jersey's fight against climate change and a new opportunity for New Jersey's economic growth and support for clean energy development in the State. It is the final stage of the multi-year Solar Transition process initiated by the Clean Energy Act, which was conducted via the closure of the SREC Program, the implementation and closure of the interim TI Program, and finally the opening of the new Successor Program.

At the outset of the Board's process to reimagine the State's solar incentive program, the Board announced a series of principles that would guide Staff's design work.<sup>18</sup> Staff continues to hew closely to these principles in its proposal for the SuSI Program. Of particular relevance to the Successor Program recommended in this Order are the following principles:

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 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 CEA, including the implications of the Cost Cap.

Staff provides a brief description of the importance of these goals, and how the Successor Program is designed to ensure compliance with them:

1. *Provide maximum benefit to ratepayers at the lowest cost:*

Solar energy provides far-reaching societal benefits, such as electricity generation free of carbon emissions and criteria air pollutants, resilience in the form of distributed generation, and the economic growth fueled by local job creation. The incentives made available in the Successor

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<sup>18</sup> Board of Public Utilities, New Jersey Solar Transition Staff Straw Proposal (Dec. 26, 2018), available at [https://njcleanenergy.com/files/file/Renewable\\_Programs/Solar%20Transition%20Straw%20Proposal%20-%202018-12-26%20clean%20\(final\).pdf](https://njcleanenergy.com/files/file/Renewable_Programs/Solar%20Transition%20Straw%20Proposal%20-%202018-12-26%20clean%20(final).pdf).

Program will be funded by New Jersey electricity ratepayers. As such, prudence requires that these funds be used as efficiently as is practicable, while still meeting the diverse job and industry growth goals that are also key design criteria. The proposed SuSI Program should therefore aim to ensure that the cost of the incentive is as minimal as necessary and encourage competition where possible while continuing to support the industry. In addition, a long-term, durable incentive structure that reduces regulatory uncertainty will lower financing costs and therefore help to protect the ratepayers' interests.

*2. Support the continued growth of the solar industry:*

New Jersey has long supported the development of a robust and sustainable market for renewable energy in New Jersey through its increasing RPS and legacy SREC Program. The Successor Program aims to ensure that New Jersey's solar industry continues to thrive, while meeting all Cost Cap requirements and adapting to changing market conditions. The program laid out today is designed to achieve these goals while maintaining fiscal prudence. Over the course of several years, the Successor Program is designed to achieve 750 MW of annual solar, including the creation of an entirely new grid supply program that will eventually account for 40% of the total goal. Additionally, the Successor Program is intended to maintain the market for net metered residential, commercial, and industrial installations at approximately the same level as has been historically achieved in New Jersey, while doubling the community solar program compared to the Pilot Program's original annual target (150 MW versus 75 MW in the first year), which focuses on ensuring that low- and moderate-income consumers have access to the benefits that solar power provides.

*3. Meet the Governor's goal of 50% Class I RECs by 2030 and 100% clean energy by 2050:*

Governor Murphy has declared that it is the policy of the State to purchase RECs to match 50% of New Jersey total electricity consumption by 2030 and to reach 100% clean energy by 2050. RECs can generally be sourced from clean energy resources anywhere in the PJM region, with some exceptions, and represent the environmental attributes associated with that clean energy. The solar electric generation incented by the SuSI Program directly offsets the RECs that would otherwise be purchased to meet the Class I RPS and is often referred to as a "carve-out" or "set-aside" within the larger RPS program. The solar incentivized by the SuSI Program is one of the key pillars of meeting Governor Murphy's goal of 100% clean energy by 2050. Additional solar generation is critical to meeting the State's efforts to reduce emissions of greenhouse gases and other air pollutants associated with electric power generation, as detailed in the 2019 EMP and 2020 Global Warming Response Act Plan.<sup>19</sup>

The Successor Program is designed to incent new solar generation that serves load in New Jersey in pursuit of the 50% RPS by 2030, and enable New Jersey to steadily advance its clean energy resources in pursuit of 100% clean energy by 2050. However, Staff also notes that because of the Cost Cap, there may be years when current law prohibits the Board from achieving both the broader RPS standard and allocating the full complement of solar incentives to new solar

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<sup>19</sup> New Jersey Board of Public Utilities, *2019 New Jersey Energy Master Plan: Pathway to 2050*. Available at [https://nj.gov/emp/docs/pdf/2020\\_NJBPU\\_EMP.pdf](https://nj.gov/emp/docs/pdf/2020_NJBPU_EMP.pdf).

New Jersey Department of Environmental Protection, *New Jersey's Global Warming Response Act 80 x 50 Report*. Available at <https://www.nj.gov/dep/climatechange/docs/nj-gwra-80x50-report-2020.pdf>.

facilities seeking to register in the ADI Program for that year. This is because, on a MW-hour-by-MW-hour basis, solar purchased through the ADI Program is generally more expensive than generic RECs purchased to meet the Class I RPS. In such cases, Staff recommends that the Board honor this principle by clarifying that new solar commitments under the ADI Program should be reduced if doing so will ensure that New Jersey continues to meet its 50% and 100% clean energy commitments (this provision would apply only to the availability of incentives for new solar generation going forward, and would not impact incentives committed to existing solar facilities or facilities that have an existing registration).

*4. Provide insight and information to stakeholders through a transparent process for developing the Solar Successor Program:*

The SuSI Program established today represents the next step in a long series of stakeholder engagements on the development of New Jersey's long-term solar incentive program. Staff's dialog with stakeholders began in 2018, which involved multiple meetings, modeling sessions, and opportunities for stakeholders to provide feedback directly to the Board as well as to Staff. Throughout the process, Staff and the Board have heard from interested stakeholders on a wide array of solar related issues, culminating in the release of the April 2021 Straw Proposal for public comment. The Board received over 100 formal comments, which are summarized in this Order. Staff also held five formal stakeholder meetings to take feedback on various portions of the Straw Proposal, in addition to numerous informal discussions.

*5. Comply fully with the statute, including the implications of the Cost Cap:*

Affordably meeting the Governor's clean energy goals is a metric for the success of the Successor Program. It is critical to our greenhouse gas reduction efforts that ratepayer funds be used prudently and efficiently. The Clean Energy Act codifies this priority by setting a Cost Cap on the expenditures that may be made to incentivize renewable energy: no more than 9% of total electricity payments in the State for EYs 2019 through 2021, and no more than 7% of the total paid in subsequent EYs.<sup>20</sup> To this end, the Successor Program includes a clear assessment of the expected cost of various programs, and includes detailed proposals for how to address the statutory Cost Cap considerations and how those calculations will affect the size of the Successor Program, including the implications of the recently passed Solar Act of 2021, which directs the Board to include energy and environmental benefits in its Cost Cap calculation.

In making the recommendations set forth in this Order, Staff emphasizes that affordability is about more than simply complying with the Cost Cap. It also means being careful stewards of ratepayer money and ensuring that New Jersey customers receive the most solar energy per dollar of ratepayer support invested in these programs, consistent with the other goals governing the establishment of the SuSI Program. The Cost Cap, for example, is exactly that – a *cap* on what can be spend under the Successor Program. It is not intended as a floor or a budget to spend; the incentives recommended in this document are largely based on the modeling of what is necessary to ensure a healthy solar industry. Should the Cost Cap be breached, Staff recommends that the Board prioritize keeping incentive values at the levels that have been deemed necessary to support ongoing solar development and instead reduce the total number of megawatts for which incentives are made available.

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<sup>20</sup> See, L. 2018, c.17 Section 38(d)(2).

## **STAFF RECOMMENDATIONS FOR SUCCESSOR SOLAR INCENTIVE PROGRAM DESIGN**

### **Overall Successor Solar Incentive Program Design**

Staff recommends that the Board establish a new Successor Solar Incentive Program, known as the “SuSI” Program, which will serve as the long-term program for providing incentives to new solar generation facilities connected to the transmission or distribution systems of New Jersey electric public utilities or local government units.<sup>21</sup> Staff recommends that the SuSI Program be administered through two sub-programs, as follows:

- The **Administratively Determined Incentive Program**, known as the ADI Program, would provide administratively-set incentive values for net metered residential projects, net metered non-residential projects of 5 MW or less, all community solar projects, and, for an interim period, projects previously eligible to seek conditional certification from the Board under the subsection (t) program; and
- The **Competitive Solar Incentive Program**, known as the CSI Program, would provide competitively-set incentive values for grid supply projects and net metered non-residential projects greater than 5 MW.

Staff recommends that the vehicle for distribution of incentives in both the ADI Program and the CSI Program be the newly-created NJ Solar Renewable Energy Certificates-II, or SREC-IIs.<sup>22</sup> Each MW-hour of eligible solar generation would lead to the creation of an SREC-II, for a specified length of time (“Qualification Life”). A specific discussion of the administrative process for creating and retiring SREC-IIs is discussed below in the Staff recommendations.

### **Overall Program Design: Administratively Determined Incentive Program**

Staff recommends that the Board approve administratively determined incentives for most net metered solar projects of 5 MW or less. As initially set forth in the Successor Straw Proposal, the ADI Program is designed to be available to net metered residential projects, net metered non-residential projects of 5 MW or less, as well as to all community solar projects. The ADI Program would also be open, on an interim basis,<sup>23</sup> to projects located on property types that were previously eligible to seek conditional certification from the Board under the subsection (t) program, which are referred to as “interim subsection (t) projects”.<sup>24</sup>

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<sup>21</sup> The Solar Act of 2021 references “local government unit”, which Staff views as synonymous with “municipal electric utility.”

<sup>22</sup> Staff notes that several EDCs also run programs that use the SREC-II terminology. These programs are unrelated.

<sup>23</sup> Staff anticipates that this interim eligibility would remain open until approximately 3 months prior to the start of the Competitive Solar Incentive Program, or until the megawatt block assigned this market segment is filled, whichever occurs first. The end of this interim eligibility would be announced by the Board via an Order unless the registrations received fully subscribe the capacity allocated by the Board beforehand.

<sup>24</sup> The Solar Act of 2021 includes “contaminated site or landfill” as a newly defined term to cover the types of brownfields, areas of historic fill, and landfills previously addressed by subsection (t). The new term generally covers more types of marginal or polluted lands than were previously covered by the subsection (t) program. However, for the purposes of administering the interim ADI market segment, Staff recommends that the Board maintain the existing subsection (t)

The ADI Program builds upon the successful TI Program established in December 2019, and rolls forward a number of key program design elements from the TI Program. Key similarities between the TI Program, the Successor Program design set forth in the Straw Proposal, and the program that Staff recommends that the Board adopt today include:

- A fixed incentive payment for each MW-hour of solar electricity produced for the duration of a facility's Qualification Life;
- An incentive that varies based on mount type (e.g., ground mount, rooftop, canopy) and other project characteristics, a process known as "project differentiation" of incentives; and
- A fixed, guaranteed term for incentive payments of 15 years (the Qualification Life) in order to ensure the ability to finance projects.

Staff sees a number of benefits to continue to use the model developed for the TI Program.

*First*, using the TI Program structure has the benefit of allowing a relatively quick program implementation, making it a prime candidate to help reignite New Jersey's economy post-COVID, particularly as many of the underlying program design characteristics have already been worked out and investors and developers are familiar with the program. While the specific incentive values were the subject of significant discussion under the TI Program, the overall program structure was easy to understand, implementable on a short time frame, and sufficiently robust to allow for expansion and modification to meet New Jersey's long-term solar needs.

*Second*, an incentive structure that is both fixed and known in advance provides a low-risk incentive for developers and investors, thereby encouraging investment of at-risk private capital. Adopting a large portion of the TI framework creates a manageable transition for the industry from the TI Program to the ADI Program, avoiding surprises and providing the industry access to a proven program that investors and consumers interested in shopping for solar are already familiar with.

*Third*, an administratively determined incentive provides flexibility to the Board to adjust the incentive levels on a pre-determined schedule (initially proposed in this Order for every three years) that will allow the Board to adjust the long-term programmatic elements as needed to meet policy goals and cost considerations, as well as allowing limited reopeners during the three-year period to be responsive to exogenous factors that affect the entire solar market (such as federal incentives and tariffs) that may warrant reopening incentive levels in between the formal reset periods.

#### *ADI SREC-II Incentive Values*

The value of the incentive provided to projects registered in the ADI Program has been the subject of significant stakeholder discussion. Staff continues to recommend that the Board adopt the Straw Proposal's recommendation that incentive values be determined administratively. A number of stakeholders provided suggestions that the Board either raise or lower specific

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process for certifying sites as eligible to receive the incentives proposed for the interim market segment. Implementation of the more expansive language will be addressed in the ongoing CSI stakeholder effort.



incentive levels and many requested that incentives be further “differentiated” by project type. The incentive values recommended by Staff for each of the market segments were determined after an open and transparent process, using the modeling conducted by Cadmus in the Capstone Report as a starting point to guide Staff’s Straw Proposal, and then adjusted in response to policy priorities and stakeholder inputs, including those made at the five workshops and in formal written comments. As discussed in more detail below, after taking stakeholder comments and Staff’s modeling into account, Staff recommends that the Board establish incentive values for the ADI Program as follows:<sup>25</sup>

**Table 2: ADI Program Market Segments and Recommended Incentive Values**

<b>Market Segment</b>	<b>Size (Measured in MW)</b>	<b>Recommended Incentive Value (\$/SREC-II)</b>	<b>Recommended Incentive Value for Public Entities (\$/SREC-II)</b>
Net Metered Residential	All types and sizes	\$90	N/A
Small Net Metered Non-Residential on Rooftop, Carport, Canopy and Floating Solar	Projects smaller than 1 MW	\$100	\$120
Large Net Metered Non-Residential on Rooftop, Carport, Canopy and Floating Solar	Projects 1 MW to 5 MW	\$90	\$110
Small Ground Mount Net Metered Non-Residential	Projects smaller than 1 MW	\$85	\$105
Large Ground Mount Net Metered Non-Residential	Projects 1 MW to 5 MW	\$80	\$100
Community Solar Non-LMI	Up to 5 MW	\$70	N/A
Community Solar LMI	Up to 5 MW	\$90	N/A
Interim Subsection (t) <sup>26</sup>	All types and sizes	\$100	N/A

In recommending the incentive levels set forth above, Staff notes the Board’s long-standing commitment to two principles: the health of the solar industry and customer affordability. There is no question that a healthy solar industry is necessary to meet Governor Murphy’s ambitious vision for 100% clean energy by 2050. The 2019 EMP suggests that solar can and should play a significant role in making that clean energy future a reality. Staff therefore agrees with the commenters who stated that it may be appropriate to adjust the recommended incentive levels in order to ensure that the State continues to remain on-track to meet its solar goals.

However, the second principle – that the clean energy transition must be affordable and just – is equally important. The Clean Energy Act, the Solar Act of 2021, and the Board’s prior orders all place a strong emphasis on the need to reduce solar incentive levels over time and to balance customer affordability with the need to transition away from fossil fuels. There may be instances in which the Board decides that the benefits of a particular type of solar are outweighed by its high cost to ratepayers (see, for example, Staff’s discussion of carports below). This affordability

<sup>25</sup> Staff notes that the Capstone Report accepted by the Board on January 7, 2021 included modeling conducted prior to the December 2020 extension to the federal ITC. Cadmus subsequently performed a sensitivity analysis of the modeling using the adjusted ITC values.

<sup>26</sup> See Section 7 below for more information about the Interim Subsection (t) Program.

concern also translates directly to a general principle that no ADI incentive should exceed the incentives provided under the TI Program.

The following section describes the core resources and principles that informed Staff's recommended incentive values for the ADI Program. Generally speaking, Staff believes that it is important to consider a variety of inputs, including modeling results and sensitivities developed by Cadmus, experiential data, recommendations contained within stakeholder comments, the Board's policy preferences, and the overall importance of the solar industry within the State. Staff cannot depend on any one of these findings by itself and must carefully weigh each consideration to reach the best recommended outcome.

#### 1) Staff Recommends Additional Differentiation in Incentive Levels throughout the ADI Program.

One of the key innovations between the SREC and TI Programs was the implementation of differentiated incentives, where incentive values are different based on project type. Incentive differentiation enables incentives to more effectively target the actual incentive needs and/or policy priorities of the Board. Incentive differentiation has been generally well received by stakeholders, and Staff proposes to carry the concept forward into the ADI Program.

Despite proposing the creation of different market segments, Staff's Straw Proposal initially suggested incentives for all net metered projects in the ADI Program at a flat \$85/MW-hour. Staff received near-unanimous feedback that incentives should be "tiered" to more closely reflect differences in the costs and revenues associated with different projects and that an averaged incentive level at \$85/MW-hour may not correctly reflect different needs of the market segments.

Staff believes that dividing the incentive level into multiple market segments, as shown in the table above, each with its own incentive level, recognizes the different costs and revenues associated with different project types, and carefully balances the need for differentiation in incentive levels against the higher cost and administrative complexity associated with increasing the number of market segments in the ADI Program.

Several comments suggested the creation of separate incentive segments for solar canopies or carports, dual-use solar projects, mining facilities, and others. Staff recommends that the Board deny these requests, for two primary reasons. First, from a program design perspective, Staff recommends against creating overly-specific market segments. There is a trade-off in increasing the number of market segments: increased differentiation is intended to "right-size" the incentive values based on different project costs and revenues, however excessive differentiation would significantly increase the cost and complexity of the ADI Program. Staff also reiterates its prior statement that incentive modeling and incentive-setting is an imperfect science: extremely targeted incentives are more likely to misjudge projects' actual incentive needs.

Second, from an incentive-setting perspective, Staff notes that commenters' suggestions that the Board create separate market segments for these specific technologies are usually linked to requests for higher incentive values. Outside of the general principles enumerated in this section (particularly the preference for projects on the built environment, see Section 3 below), Staff is generally reluctant to recommend that the Board provide higher incentives for a specific solar technology or solar in a specific use-case. For example, while Staff appreciates the benefits, both aesthetic and environmental, of projects like carports, the cost of these projects is considerably higher than other solar facilities such as rooftop projects for a comparable amount of clean energy produced. The environmental and open space impacts of both types of projects are generally

comparable in the sense that they are both installed on the built environment, but the cost profile is very different because carport projects include both the solar panels and the underlying structure. The incentives necessary to incent a comparable rooftop project include only the panels and associated equipment, as the building already exists and does not have to be constructed with ratepayer assistance. Staff believes it is important for the Board to weigh whether the specific benefits of a given technology outweigh the additional cost for development, particularly in light of stated concern for ratepayer affordability, in addition to consideration of the statutory Cost Cap.

## 2) Staff Recommends Largely Adopting Incentive Modeling Assumptions from the Straw Proposal.

The Capstone Report, and the recommended incentive levels provided therein, was underpinned by an extensive modeling and stakeholder process (details regarding the modeling and stakeholder process can be found in the Capstone Report). This modeling served as the starting point for the recommendations provided in the Staff Straw Proposal. While many stakeholders argued for higher or lower incentive recommendations, most comments focused on how to interpret and apply the modeling analysis but were generally supportive of the actual modeling.

Staff generally recommends that the Board re-affirm many of the basic modeling assumptions used in the Capstone Report, including:

- Using the modeling software System Advisor Model (“SAM”), an industry-recognized and publicly accessible performance and financial model developed by the National Renewable Energy Laboratory (“NREL”);
- Setting all incentive levels targeting the 50<sup>th</sup> percentile of estimated project costs, using the SREC Registration Program and TI Program data provided to the New Jersey Clean Energy Program by registered projects; and
- Setting incentive rates using Public Service Electric and Gas Company (“PSE&G”) retail rates in revenue assumptions.<sup>27</sup>

One place where Staff recommends that the Board deviate from the Straw Proposal is in regard to the use of direct-owned systems versus systems owned by third-parties to form the basis for modeling incentive values. The Capstone Report divided the cost data based on broad project types, and, in particular, differentiated between net metered projects that are direct-owned (where the panels are owned by the same entity as the account that is net metered) versus third-party owned (where the panels are owned by a different entity from the account that is net metered and the panels are either leased or the electricity is sold to the host via a power purchase agreement). The modeling results found that, all else being equal, third-party owned systems require a higher level of incentive than direct-owned systems, a conclusion confirmed by stakeholders.

In the Straw Proposal, Staff initially recommended basing the ADI Program incentive values

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<sup>27</sup> Because New Jersey rate design varies significantly between EDCs, a single statewide rate may result in over- or under-payments in some service territories, or clustering of solar development in areas where the rate is attractive and little development in other areas. While this initial program design proposes not to differentiate market segments by utility territory for ease of administration, Staff proposes that the Board consider further refining incentive levels on an EDC-by-EDC basis in the “Year One Checkup” discussed *infra*.

strictly on the “lower-of” the third-party owned or direct-owned modelled values. Staff received a number of comments regarding this issue, with many stakeholders expressing concern that the incentives for direct-owned projects were too low to maintain the health of the overall solar industry.

In response to this stakeholder feedback, Staff looked carefully at the available data, and noted that 48% of projects (on a capacity basis) that entered the TI Program, other than public entities, used the host-owned business model. The slight majority, 52%, used the third-party owned business model. Indeed, since 2018, there have been approximately the same percentage of direct-owned projects as third-party owned projects (again, not including public entities), with a slight trend towards direct-owned projects, which mirrors a similar trend nationwide.

Thus, while using the direct-owned incentive levels results in a less expensive outcome for ratepayers, Staff recognizes that approximately 50% of the solar installed over the past few years has used the third-party business model, and is concerned that strictly adhering to the “lower-of” standard advanced in the Straw Proposal may constrain the State’s ability to meet its solar targets. Further, Staff is mindful of the Board’s prior conclusions that incentive modeling also has to be responsive to arguments from stakeholders. Despite the depth of expertise and stakeholder involvement in the development of the Capstone Report modeling, Staff recognizes that incentive value modeling is not an exact science, and should be treated as a starting place and general guide, not as a definitive answer.

In light of the above, Staff now recommends that the Board use as a baseline a blended average of the direct-owned and third-party owned modeled incentive values, which would result in an overall higher incentive level recommendation for the ADI Program than what was proposed in the Straw. Staff also recognizes that the most efficient third-party owned systems may indeed be less expensive than the highest cost direct-owned systems, and thus believes it would be worthwhile to set incentives such that those efficient third-party projects remain financially viable.

However, Staff does not believe that setting incentives at the full third-party owned modeling level would represent a good outcome for New Jersey consumers and sees no evidence that setting incentive levels below the mid-point of third-party owned system costs will jeopardize the achievement of the Board’s solar goals. In balancing these various considerations, Staff does not recommend that the Board utilize a particular formula or specific averaging methodology but instead incorporate the qualitative considerations set forth in this section into its final incentive recommendations. While utilizing the blended average of the direct-owned and third-party owned business model may result in a slight over-compensation for direct-owned projects, Staff believes that increasing the incentive levels above the modeled minimums for direct-owned systems will help ensure that multiple business models remain commercially viable in New Jersey, especially as not all potential solar customers will have access to the capital or credit necessary to purchase a direct-owned system outright.

Finally, Staff recommends that the Board direct Staff to closely monitor market trends and to refresh its outlook on this issue during future ADI Program incentive resets.

### 3) Modified Incentives for Ground Mount Systems in the ADI Program.

Staff received a number of comments requesting an increase to the incentive proposed for net metered non-residential ground-mounted solar installations. Staff acknowledges that there are “soft” costs of ground-mounted projects that are unique to this technology type, particularly the

increased costs associated with siting and permitting, which are largely absent for rooftop and other mount types. Staff therefore recommends that the Board adopt incentives for this market segment that are higher than the Cadmus modeling initially suggested for direct-owned projects.

However, Staff also recommends that the Board adopt the principle that ground mount projects should generally receive a lower incentive than a comparable project sited on the built environment. While the Board is not a land use agency, and typically seeks to defer policy decisions regarding solar siting to other New Jersey State agencies, the Board has a stated preference for solar projects that make use of the built environment and that minimize impacts on open space (i.e. rooftops and similar installations on the built environment). Setting ground mount incentives lower than comparable projects on the built environment will help honor these policy goals and ensure that, for a given cost to ratepayers, solar is directed onto the built environment.

#### 4) Staff Recommends Considering TI Program and ADI Program Registration and Installation Data in Setting Incentives.

As described above, the ADI Program is in many ways a continuation of the TI Program, one which is intended to be implemented on a long-term basis. Therefore, Staff has drawn on the experience of the TI Program in order to understand how different market segments reacted to the switch to a fixed incentive, and to their respective TREC values. Specifically, Staff looked at two variables: the number of MWs of solar capacity installed (i.e., that reached commercial operation) and the number of MWs of new projects registering in the TI Program on a monthly basis. Generally, Staff views MWs of installed projects as a backward-looking indicator, since it generally represents the strength of the solar industry when the projects first registered in the program, which is typically 12 – 18 months before a project achieves commercial operations. Registrations, however, are generally a forward-looking indicator of the overall health of the industry, since they represent the solar that is likely to be built in the next 12 – 18 months.

2020 was a difficult year, for many reasons. In New Jersey, the solar industry faced numerous challenges, all occurring at approximately the same time: the decline in the federal Investment Tax Credit (“ITC”) from 30% to 26%, the impact of the COVID-19 global pandemic, and the statutorily-mandated close of the SREC Program, along with the inherent uncertainty tied to the transition to a new incentive program. While it is difficult to determine exactly how much of the New Jersey solar market’s response in 2020 was tied to the implementation of the TI Program, as opposed to the ITC decline and the COVID pandemic, Staff closely monitors trends in solar installations and registrations, specifically seeking to understand where certain market segments may have been over- or under-incentivized in the TI Program, and then applied those lessons to the recommended ADI Program incentive levels. In particular, Staff saw robust response in monthly registrations for residential, subsection (t), and non-residential registrations, all of which increased significantly over the course of the TI Program. By contrast, ground-mount projects saw relatively low levels of adoption, likely because of the difficulties in permitting caused by the COVID pandemic and lower overall incentive levels than rooftop projects. Staff will continue to closely monitor these trends in the market going forward, particularly in the context of the one-year check-in recommended by Staff, as discussed below in section 6 below.

Staff also recognizes that the solar industry is not static, and that circumstances can change rapidly, particularly in response to high-level global supply chain dynamics or federal tax policy. For instance, there is evidence that the long-term downward cost trends in solar equipment and installation has halted in recent months, and indeed, may be entering a period of increase. Staff recognizes that it is important for the Board to monitor these trends and make adjustments where

necessary. However, it is also important that the Board continue to push the industry to be more efficient and continue to drive down balance-of-system and other costs. And while supply chain constraints may be exacerbated over the coming months, Staff continues to believe that, over time, there is a trend towards ever decreasing solar costs that warrant being cautious about overreacting to short-term supply chain and other disruptions.

#### 5) Staff Recommends Addition of a “Public Entity” Adder.

Several commenters suggested that net metered systems serving public entities should be offered a higher incentive level than systems owned by private entities. After reviewing the extensive record on this issue, Staff recommends that the Board support this position and offer public entities a higher incentive level. The argument in favor of granting special consideration to public entities is twofold. First, from a solar development perspective, TI Program installation data shows that 90% of public entity installed capacity relies on solar installations owned by third-parties, making it an exception to the general trend in increasing direct ownership of solar projects. This largely appears to be a function of the fact that public entities cannot use the federal tax benefits associated with ownership of a solar system, as well as a greater degree of comfort with the maintenance, performance, warranty and financial stability associated with third-party ownership. Second, the Board has in the past given special consideration for public entities through the creation of dedicated programs and incentives, in recognition of the importance of government leading the way in a clean energy economy.

Therefore, Staff believes that net metered solar serving public entities is an important part of New Jersey’s solar ecosystem. Public entity projects have accounted for 10% - 12% of installed solar capacity throughout the life of the SRP as well as the TI Program, and result in savings to local communities, give New Jersey consumers confidence in the solar market, and serve a community educational purpose.

As a result, Staff is recommending that the Board establish incentive values for public entities that are \$20 per SREC-II higher than the corresponding incentive for non-public entities. This brings incentive values for public entities closer to the full third-party owned incentive modeling performed by Cadmus, which is appropriate given the substantial number of public entities that use that financing model.

Staff proposes that the Board define “public entities” using the definition previously utilized by the Board in the context of remote net metering, as follows: an electric utility customer that is a State entity, school district, county, county agency, county authority, municipality, municipal agency, municipal authority, or New Jersey public college or university.

#### 6) Incentive Value Re-Setting Mechanism and One-Year Review of Incentive Levels.

Staff recommends that the Board largely adopt the incentive value re-setting mechanism set forth in the Straw Proposal. Specifically, Staff proposed that the incentive value would be reset via a public proceeding every three years, to be conducted at least nine months prior to the start of the next three-year incentive period. This structure ensures that the Board provides the market a clear line of sight to future incentive levels, prevents boom-and-bust cycles that might occur if incentives were changed more often, and minimizes the inefficiencies associated with the triennial transition to new incentive levels. In response to commenters who raised concerns that incentives should be established earlier than nine-months before the expiration of the three-year period, Staff responds that it has to balance the benefits of providing developers line-of-sight on future

incentive trends with the need to include the most up-to-date solar revenue and cost data.

Staff recommends that the Board find that, if the Board does not initiate a triennial review and proceeding to affirmatively maintain or reset the incentives, incentives would automatically decline by 10% for each three-year incentive period until such time as the Board takes action. While several commenters opposed the automatic reduction of incentives, citing the potential for inaction to harm the solar market, Staff continues to believe that an automatic reduction is warranted, given the historic trend towards lower solar costs. Further, Staff notes that the Board would have to make a conscious decision to not initiate a formal reset process, and rejects claims that inadvertent inaction could lead to harming the solar industry.

While Staff continues to believe that a triennial reset process balances the need for commercial certainty and the need to continue lowering solar incentive values over time, Staff recognizes the extensive feedback from stakeholders that three years could be too long to wait to adjust incentive levels if the market as whole, or certain segments within the market, are under- or over-performing. This concern was especially acute in regard to the first twelve months of performance of the ADI Program. To address these concerns, Staff recommends that the Board direct Staff to conduct a “one-year check-up” on incentive levels after the first twelve months of experience with the new program. The one-year check-up will provide an opportunity to examine whether the ADI Program is reasonably on track to meet the targets established by the Board or whether incentives should be adjusted based on the first year of operational experience.

In conducting the one-year check-up, Staff expects to consider whether to recommend to the Board any adjustments to the EY22 recommended incentive levels. The one-year check-up would take into account market response, rate of registrations into the program, total MWs registered into the program, and other factors that are indicative of the overall health of the solar industry. Staff notes that, based on past experience, there is typically a period of adjustment to new incentive levels, such as the initial drop-off in new registrations that occurred immediately after the closure of the SREC market and the opening of the TI Program. Whether these drop offs were attributable to the new program or the COVID-19 pandemic that affected the State over the same time period is difficult to parse out. However, Staff will take into account these types of transitional issues, and monitor both short-term and long-term market data.

Staff also notes that commenters were generally supportive of re-opening incentive levels in certain narrow and discrete circumstances, when warranted. Specifically, the Straw Proposal suggested that the Board may elect to adjust incentive levels within any given market segment prior to the start of a new three-year period under circumstances in which there are significant market-wide changes, such as material tax law changes or tariff changes. Staff continues to see value in this approach.

Finally, Staff recommends that the Board generally state that incentive value resets would not affect projects already successfully registered in the ADI Program, so long as the registration remains in good standings, but would affect the incentive value offered to new projects registering in the ADI Program subsequent to the Board’s establishment of new incentive values.

#### 7) Staff Recommends an Interim Incentive for Subsection (t) Projects.

Staff takes seriously the exceptional challenges that developers of solar on contaminated sites face, including the long development time frame and substantial sums that are often spent early in the development process. Projects on properly closed sanitary landfills, brownfields and areas

of historic fill have long received special consideration in New Jersey's solar programs, and Staff recommends that the State continue to support these projects.

Staff recommends that the Board address several intertwined issues in this Order: (i) whether contaminated sites and landfill projects should be included in the competitive or administrative programs; (ii) how projects eligible for the existing subsection (t) program should be treated prior to the finalization of the CSI Program and related transition issues; and (iii) what qualification rules should apply to any interim program.

First, Staff recommends that contaminated site and landfill projects should expect to take part in the competitive program, as discussed in more detail in the CSI Program section of this Order.

Second, Staff agrees with the concern raised by developers of subsection (t) projects that there are unique timing and investment concerns associated with developing solar projects on marginal lands, such as brownfields, areas of historic fill, and properly closed sanitary landfills. In particular, several developers noted that a delay in the availability of incentives from the CSI Program, along with uncertainty as to what those incentives are likely to be, could cause significant distress to subsection (t) projects currently in development. To address these concerns and ensure that these important projects are not unduly delayed, Staff recommends creating an "Interim Subsection (t) Program" to address the needs of subsection (t)-eligible projects that have not yet submitted completed applications, but would like to continue development pending the implementation of the CSI Program. Staff proposes that the Interim Subsection (t) Program create a special interim administrative category for subsection (t) projects, not to exceed 75 MW in the aggregate, between the closure of the TI Program and approximately three months prior to the finalization of the CSI Program.

Staff recommends that projects in the Interim Subsection (t) Program would receive an SREC-II value of \$100/MW-hour of solar production, developed through supplemental modeling conducted by Cadmus. The supplemental modeling used to determine the \$100/MW-hour incentive level was based on the same SAM modeling platform and robust modeling assumptions that were vetted by stakeholders and used to set the rest of the ADI Program incentive levels. The modeling was based on cost data provided by participants in the subsection (t) program and the data converged with statistical significance around the proposed incentive level.

Third, for the purpose of the Interim Subsection (t) Program, Staff recommends that the Board continue to utilize the existing process for certifying subsection (t) projects, including use of the existing definitions of brownfields, areas of historic fill, and properly closed sanitary landfills. Staff notes that the Solar Act of 2021 adopts a broader definition of "contaminated site or landfill" as a replacement for the existing subsection (t) program. In coordination with the New Jersey Department of Environmental Protection, Staff expects to develop rules for implementing the new language as part of the CSI Program.

In making the recommendation to establish an Interim Subsection (t) Program, Staff is mindful that developers of subsection (t) projects have had notice that the TI Program was always intended to be temporary and of relatively short duration. Further, Staff does not believe that a small portion of project types that were eligible to participate in the TI Program being moved to a competitive solicitation under the CSI Program creates a "gap" in the availability of incentives.<sup>28</sup>

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<sup>28</sup> Staff recognizes that there is likewise an "incentive gap" for net metered non-residential projects greater than 5 MW



The transition to a competitive program, conducted on a once-a-year basis, will likewise necessitate the unavailability of incentives during certain periods of time.

Finally, as the Board stated in the January 8 Order,<sup>29</sup> the key date in determining when the TI Program may be closed is that on which a registration program for the Successor Program opens. A companion item on this agenda makes a determination regarding the close of the TI Program and directs the opening of just such a registration process. Staff recommends that the Board reject any claims of detrimental reliance or other remedies premised on the availability or unavailability of incentives for a particular class of resources, whether because of the perceived gap noted by some commenters, or because a developer invested at-risk capital in a project that may not immediately (or ever) be eligible to participate in the Successor Program, or may no longer be economic under the evolving Successor Program rules.

#### 8) Consideration of an Adder for Low Income Residential Projects.

Several commenters expressed support for an adder specifically targeting homeowners in low- and moderate-income (“LMI”) or environmental justice (“EJ”) communities. Staff agrees with the sentiment that it is critical that all citizens in New Jersey be given the opportunity to enjoy the benefits of solar ownership, including LMI customers or those located in EJ communities. Staff also recognizes the unique financial challenges that home owners located in these communities may face as they attempt to install solar on their homes. However, Staff is not convinced that creating a separate incentive for homeowners in these communities is the best method of increasing solar adoption or of bringing solar power within the financial reach of disadvantaged customers. In particular, Staff notes that the Board’s primary focus on ensuring the wide-spread benefits of solar to LMI and EJ communities has been the enormously popular Community Solar Program, which provides many of the financial and environmental benefits of solar to LMI customers, without the upfront costs of installing a system and without the need for home ownership. While Staff at this time does not recommend a specific adder for privately owned systems, it commits to continuing to review the issue and welcomes further stakeholder input.

#### *ADI Market Segments and Megawatt Blocks*

Staff recommends that the Board implement an annual cap on the capacity allowed to register in the ADI Program. This represents a departure from the SREC and TI Programs, which had no capacity caps and were open to all projects that submitted a complete registration. Capacity limits are important in the context of the ADI Program in light of the Board’s commitment to affordability and the targets included in the Solar Act of 2021. The implementation of the capacity caps will ensure the Board’s ability to forecast and manage the overall costs of the ADI Program, and enable New Jersey’s solar industry to continue to grow in a balanced manner.

Therefore, Staff recommends that the Board set MW blocks that would serve as an annual cap on MW registrations. Staff does not necessarily expect all MW blocks to be completely filled and

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in size. However, Staff does not consider these projects similarly situated to subsection (t) projects, as they are far less complicated and involve less up-front remediation and analysis work than projects on disturbed lands. For these reasons, Staff does not recommend creating an interim incentive for large net metered non-residential projects.

<sup>29</sup> See In re a New Jersey Solar Transition Pursuant to P.L. 2018, C.17, BPU Docket No. QO19010068, Order dated January 8, 2020 (“January 8 Order”).

not all projects registered in the ADI Program will reach commercial operation. Registered projects represent the maximum number of incentives that could be issued in a given year and is therefore an appropriate method of tracking the size of the ADI Program. The Board would establish MW blocks no less than once a year, prior to the start of the Energy Year. As the Board gains more experience with the program, it may elect to include an assumed “scrub” rate to ensure that the program meets the megawatt targets established in the Solar Act of 2021.

Staff recommends that the MW blocks be implemented as follows: the ADI Program registration manager would be directed to accept new registrations for each market segment on a first-come, first-served basis until the MW block for that market segment is fully subscribed. A MW block would be defined as being fully subscribed when the last registration received in the registration portal causes the total capacity of all registrations in that block to exceed the capacity allocation for said block (this means that the last project allowed to register in a given MW block could lead to the slight exceedance of said MW block). When the MW block for a given market segment is fully subscribed as defined above, the ADI Program registration manager would close the registration portal for that market segment and stop accepting new registrations in that market segment until the next capacity block is opened.

Staff recommends that the Board consider several factors in setting the capacity limit for each MW block, including:

- a. Historical installation rates, with the intent to continue to enable installation rates at or above historical averages;
- b. Equity and accessibility considerations, particularly when determining the size of the Community Solar MW block;
- c. Ensuring that there is sufficient liquidity in each market segment;
- d. Ensuring that the total cost to ratepayers remains affordable; and
- e. Ensuring that the total amount of budget dollars available under the Cost Cap is respected.

In the Straw Proposal, Staff sought comments from stakeholders as to whether the MW blocks should be implemented as an annual or quarterly capacity limit. Stakeholders provided thoughtful comments supporting both options. In support of the quarterly MW blocks, Staff received comments stating that the shorter windows would help address the potential risk that a given market segment may fill up immediately upon opening, depriving projects of any opportunity to receive an incentive until the window re-opens, as has happened in other states. However, other commenters noted the inherent difficulties in administering the quarterly system, and that registrations are not traditionally evenly spread out across the year.

After considering all of the comments, Staff recommends that the MW blocks be implemented on an annual basis, for several reasons: first and foremost, given the EY22 proposed MW targets (provided below) and historical build rates, Staff does not anticipate rapidly exceeding the MW targets set for each market segment. Staff recognizes that sales cycles are not always evenly distributed between the four quarters (e.g., in years where the ITC declines, there is often a surge in registrations and installations in the latter half of the calendar year). Staff believes that a year-long window will therefore provide greater visibility for industry participants, facilitate program

implementation, and avoid the potential issues caused by stop-and-start development if quarterly windows are filled. However, Staff recommends that the decision to implement MW blocks on an annual versus quarterly basis be revisited during the one-year check-up discussed above, based on the experience derived from the first year of the ADI Program. Additionally, Staff believes that, particularly in this first year, it is important for the Board to continuously monitor new registrations in the ADI Program and monitor the possibility that a given MW block could be significantly oversubscribed.

Staff does not recommend having a waiting list for projects seeking to enter a window for a market segment that is already fully subscribed. Instead, projects would simply have to wait until the next available window. Otherwise, the “annual” window could be over-subscribed such that multiple years of projects block future investment in solar.

Community solar capacity would continue to be allocated pursuant to the rules of the current Pilot Program (i.e., via a competitive application process) or the subsequent permanent Community Solar Program.

For EY22, Staff recommends that the Board adopt the following MW blocks. After carefully reviewing the record, Staff recommends that the Board aggregate projects into four blocks: (i) net metered residential projects; (ii) net metered non-residential projects (all installation types); (iii) community solar projects; and (iv) interim subsection (t) projects. While the Straw Proposal initially recommended breaking up the net metered non-residential MW block into smaller MW blocks for various sub-types, such as rooftop projects above or below 1 MW, after reviewing the comments, Staff now recommends that the Board aggregate those blocks into two larger blocks: a residential block and non-residential block. Aggregating the non-residential net metered market segment into a single MW block will allow more flexibility for the market, avoid overly granular capacity estimates, and avoid the situation where a given market segment could be over-subscribed while another similar market segment is undersubscribed. Staff’s final recommended MW blocks are set forth in Table 3:

**Table 3: Recommended MW Blocks for EY 2022**

<b>Type</b>	<b>Size</b>	<b>Recommended EY22 MW Block</b>
Net Metered Residential	All sizes	150 MW
Net Metered Non-Residential (all installation types)	All sizes at or below 5 MW	150 MW
Community Solar (LMI and non-LMI)	All sizes at or below 5 MW	150 MW
Interim Subsection (t)	All sizes	75 MW

As is the Board’s standard practice, Staff recommends that all MW values be measured in dc capacity. Furthermore, Staff recommends that the Board reserve the right to expand the size of any or all of these MW blocks based on the rate of registrations and overall program cost considerations if necessary to ensure the efficient operation of the program. Finally, Staff notes that EY22 has already started. For administrative ease, Staff recommends that the Board make the full MW blocks available between the effective date of the ADI Program and the start of EY23

on June 1, 2022, with the caveat that the Interim Subsection (t) Program will only be available for registration for a limited time, as described previously.

### *ADI Program Eligibility*

Staff recommends that the ADI Program only be available to new systems that have not commenced commercial operation prior to the opening of the ADI Program, unless otherwise granted special dispensation to enter the ADI Program by the Board. This means that the equipment used in an ADI project would be required to be new, and cannot have been used prior to the installation of the ADI-eligible project. Projects would be required to submit a complete ADI Program registration and receive a notice of conditional registration prior to beginning construction on the facility (the registration process is described below).

Because the ADI Program includes differing incentive levels for different sizes and types of solar facilities, Staff is concerned that a developer or owner could site multiple projects on the same property or contiguous properties in order to access the higher incentive levels assigned to smaller projects (for example, two projects under 1 MW would receive a higher incentive level than one project just under 2 MW), while still achieving the economies of scale that larger projects often present. This is generally referred to as “co-location” of projects. The rules proposed by the Board in Docket No. QX21040728, at N.J.A.C. 14:8-11, define “co-location” as:

... siting two or more SuSI-Eligible solar facilities on the same property or on contiguous properties such that the individual facilities are eligible for a higher incentive value than they would be if they were combined into one single facility. In the case of net metered projects, SuSI-Eligible solar facilities shall be not be deemed co-located if they serve separate net metering customers as defined at N.J.A.C. 14:8-4.

Staff recommends that co-location be prohibited in the ADI Program, unless granted special dispensation by the Board. In enforcing this rule, Staff will look to whether the multiple projects are structured to avoid the fair and consistent application of the ADI Program rules. At proposed N.J.A.C. 14:8-11.4, the Board further clarified that an entity may file a petition with the Board for special dispensation to engage in co-location of facilities. In evaluating such a petition, Staff recommends looking at whether the co-located solar projects are under common ownership or control or whether the proposed systems are owned by financially unrelated entities. Additionally, Staff recommends that the Board consider allowing a co-located project if the project registrant voluntarily agrees to accept the lowest incentive level that would apply if the multiple projects were combined into single project located on the site.

Finally, Staff recommends that projects will be eligible to participate in the ADI Program “if it is connected to the distribution or transmission system owned or operated by a New Jersey public utility or local government unit.”<sup>30</sup>

### *ADI Program Registration Process*

Staff proposes to create a new registration process and portal for the ADI Program, in coordination

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<sup>30</sup> See Section 3(c) of the Solar Act of 2021.

with an ADI Program registration manager. All forms and instructions regarding the ADI Program registration process would be posted on the Board's New Jersey Clean Energy Program ("NJCEP") website at [www.njcleanenergy.com](http://www.njcleanenergy.com).

Prior to beginning construction on an ADI-eligible facility, developers or project owners would be required to submit a complete registration package. Staff proposes that the registration package include minimum project maturity standards to discourage non-viable projects entering the registration queue or remaining in the queue indefinitely, and to discourage projects that are less likely to reach commercial operation. In implementing these maturity requirements, Staff recommends that the registration package be developed by Board Staff, and require the inclusion of:

- 1) A registration form, including disclosure of any co-located facilities;
- 2) A contract between the primary installer and the customer of record;
- 3) A site map showing all proposed and installed ADI-eligible facilities;
- 4) A disclosure statement signed by the customer, the installer, and the third-party SREC-II owner, if applicable. The disclosure statement would be developed by Staff and the ADI Program registration manager;
- 5) For net metered facilities, a utility bill showing the site host's name, address, and electric tariff;
- 6) For facilities sized 25 kW or greater, and as deemed necessary by Staff, electrical and building permits or documentation that applications for electrical and building permits have been submitted to the relevant municipality;
- 7) For facilities sized 25 kW or greater, up to 1 MW, evidence of having submitted to the relevant EDC a Part 1 interconnection agreement signed by the customer-generator and installer;
- 8) For facilities sized 1 MW or greater, an executed Part 1 interconnection agreement and a Milestone Reporting Form; and
- 9) For public facilities, a letter on official stationery of the public agency under signature of a bona fide officer, elected official, or employee of the public agency attesting to the eligibility status of the public agency for the ADI public adder.

Staff further recommends that the Board require that each registration package be accompanied by an application fee. Staff recommends that, in order to provide visibility to industry participants, that this application fee take effect one year from the opening of the ADI Program. Therefore, application fees would be required for any registration packages submitted after the start of Energy Year 2023. Staff recommends that the value of the application fee be determined via a future Board Order.

Staff recommends that registrations to the ADI Program be accepted on a first come, first served basis, until the MW block (i.e., the Board-approved annual capacity allocation) for a given market segment is filled.

Staff recommends that registration packages submitted to the ADI Program be reviewed following the same general process developed under the SREC and TI Programs. Specifically: registration packages would be reviewed by the ADI Program registration manager. The registration manager would verify that the proposed project is eligible to participate in the ADI Program, and determine whether the registration package is complete, incomplete, or deficient. Registrations that are deemed incomplete due to a minor deficiency, as defined on the NJCEP website, would be notified of the deficiency by the ADI Program registration manager and granted 7 business days to cure the deficiency. Registrations that are deemed incomplete, have a major deficiency as defined on the NJCEP website, or fail to correct minor deficiencies within the time allowed, would be rejected. If the registration package is rejected, the registrant would be allowed to submit a new complete registration to the ADI Program if the relevant capacity block remains open. Registrants that submit a complete registration package or that cured all minor deficiencies in the time allowed, and that meet the eligibility and qualification requirements for an ADI market segment pursuant to these rules, would be issued a notice of conditional registration by Board Staff or the ADI Program registration manager. The notice of conditional registration would indicate for which market segment the project is eligible, and set an expiration date for the project's conditional registration based on the ADI Program deadlines proposed below.

After receipt of the notice of conditional registration, construction of the solar facility as described in the initial registration package would be allowed to begin.

After submittal of an initial registration package, projects would be allowed to increase the project's generating capacity by up to 10 percent or 25 kWdc, whichever is less, contingent on notifying the ADI Program registration manager following the instructions provided on the NJCEP website. Projects would not be permitted to increase their generating capacity by more than 10 percent or 25 kWdc, nor exceed the ADI Program MW size limit for the given market segment assigned in the project's conditional registration.

#### *ADI Program Deadlines and Extension Policy*

Staff recommends that all net metered projects be assigned a conditional registration that expires 12 months from the date of issuance of the notice of conditional registration. Staff recommends that community solar projects be assigned a conditional registration that expires 18 months from the date of issuance of the notice of conditional registration. Projects granted conditional approval by the Board as part of the interim subsection (t) program would be granted a conditional registration expiring 24 months from the date of issuance of the notice of conditional registration.

Staff recommends that the Board allow projects that received a notice of conditional registration to request one six-month extension to their registration expiration date. Extension requests would be required to be submitted to the ADI Program registration manager on or before the expiration date noted in the notice of conditional registration. Any extension request would be considered by the ADI Program registration manager on a case-by-case basis, based on consideration of extenuating circumstances for the delay in completing the facility, evidence that the facility has made progress towards completion, and the likelihood of timely and successful completion of the solar facility. For facilities 1 MW or greater, the ADI Program registration manager would also consider whether the registrant has submitted timely quarterly milestone reporting forms. If the extension is granted, the ADI Program registration manager would provide a new registration expiration date, six months from the expiration of the original conditional registration.

All projects conditionally registered in the ADI Program would be required to receive permission to operate from the relevant EDC and submit a post-construction certification package prior to the expiration date indicated in the notice of conditional registration (including any extensions that may have been approved).

As set forth in the rules proposed for the ADI Program, the post-construction certification package would be developed by Staff and the ADI Program registration manager and be made available on the Board's NJCEP website, and contain requirements including:

1. A final "as built" technical worksheet, detailing the technical specifications of the completed solar electric generating facility, including any changes from the technical worksheet submitted as part of the initial registration package;
2. Digital photographs of the site and the completed solar facility;
3. An estimate of the electricity production of the solar facility;
4. Where applicable, documentation of compliance with all applicable Federal, State, and local laws, including eligibility for any tax incentives or other government benefits; and
5. A copy of the EDC or PJM approval to interconnect and energize the facility.

Following submission of a post-construction certification package, projects will either be selected for an inspection by the ADI Program registration manager or receive an inspection waiver. If the review of the post-construction certification package or project inspection reveals that the registrant failed to disclose co-located facilities, the Board may take enforcement action, including, but not limited to, adjusting the incentive amount.

If the post-construction certification package demonstrates that all program requirements have been met, and the facility either passes an inspection or receives an inspection waiver, Board Staff or the ADI Program registration manager would assign a New Jersey State Certification Number to the solar facility for use in obtaining SREC-IIs from PJM-EIS Generation Attribute Tracking System ("GATS"). The Certification Number will identify the facility's market segment, and associated incentive level, based on the completed facility type and size information certified in the post-construction certification package.

Solar electric generation facilities that have received a notice of conditional registration for SREC-IIs would retain eligibility to remain in the ADI Program until the expiration or cancelation of their ADI registration. Any facility that does not commence commercial operation within the time provided in its ADI registration (i.e. by the registration expiration date), or that commences commercial operation but does not submit a post-construction certification package within the time provided in its ADI registration (i.e. by the registration expiration date), would no longer be eligible for the ADI Program and its registration will be canceled. In the case of a registration cancellation, the registrant would be permitted to submit a new registration into the ADI Program if capacity remains in the relevant MW block established by the Board (or in a subsequent MW block if new capacity is made available by the Board at a later time). In the case of a resubmittal where the project has already begun construction, the new registration would be exempted from the requirement that projects submit a registration package and receive a notice of conditional registration prior to beginning construction on the facility. Board Staff and the ADI Program registration manager would otherwise treat the new registration package as if it were a first-time

submittal, with no reference to the previous registration process.

*Mechanism for Creation of NJ SREC-IIs*

Staff recommends that all incentives provided under the new Successor Program be structured as a fixed incentive payment for each MW-hour produced by an eligible solar facility. Under the fixed incentive model, each eligible project receives an incentive payment for each MW-hour of electricity produced during the full term of the project's Qualification Life. The per MW-hour value of the incentive does not change over the term of the incentive, and represents the renewable attributes of each qualifying resource. This incentive model represents a change from the market-based SREC Program, where SRECs must be procured and retired by Load Serving Entities ("LSEs") where supply and demand varies annually and therefore the value of SRECs changes over time. The fixed incentive payment model was piloted during the TI Program, and has received widespread support from industry participants. Under a fixed incentive model, consumers and financiers all have a clear understanding of the expected value of the incentives associated with each MW-hour of generation by a given project. This certainty also enables the Board to reduce the value of the per MW-hour incentive provided, because there is no need to add a risk-premium to compensate for the variability of the incentive value. Staff recommends a per MW-hour program design, rather than per MW installed, to ensure that projects receive incentives for actually producing clean energy and reduce the risk that ratepayers would support the development of solar infrastructure that produces less energy than anticipated. Overall, Staff believes that this proposed incentive design will ensure that ratepayer incentives have a "multiplier" effect by leveraging multiple private dollars of capital for every dollar of ratepayer investment.

Staff additionally recommends that the Board direct the EDCs to jointly contract, in consultation with Board Staff, a New Jersey SREC-II Administrator ("SREC-II Administrator") responsible for administering the procurement and allocation, and coordinating the retirement of NJ SREC-IIs for both the ADI and CSI Programs.

Under the ADI Program, Staff recommends that the Board implement the following mechanism for SREC-IIs:

- A project registered in the ADI Program would be eligible to create NJ SREC-IIs only after having been issued a New Jersey State Certification Number by the ADI Program registration manager and registering in GATS.
- The creation of NJ SREC-IIs would be based upon metered generation supplied to GATS by the owners of eligible facilities or their agents, such that one NJ SREC-II would be created for each MW-hour of eligible electricity produced and reported to GATS by an ADI-eligible project.
- Projects would be eligible to receive an SREC-II for 15 years (the ADI Program Qualification Life), meaning that projects would receive a fixed incentive on a \$/MW-hour basis for 15 years, starting from the date the project receives permission to operate ("PTO") from the relevant EDC or municipal electric utility. At the end of the ADI Program Qualification Life, projects would be eligible to receive Class I RECs.



- All ADI-eligible generation must be transferred to the NJ SREC-II Administrator via an irrevocable standing order, which would be created in GATS for each ADI-eligible project. An Irrevocable Standing Order is defined in the GATS Operating Rule as “[a] reoccurring automatic transfer of certificates for a given generating unit from the account holder’s active subaccount to the active subaccount held by different account holders.” The Irrevocable Standing Order will cause the automatic transfer of NJ SREC-IIs created by an eligible solar facility to a GATS account jointly held by the four EDCs (“EDC Joint GATS Account”). The Irrevocable Standing Order, upon execution, shall require for that generator that, following the creation of the Standing Order, 100 percent of the NJ SREC-II certificates created from each meter reading be automatically transferred to the EDC Joint GATS Account.
- Prior to the execution of the Standing Order, NJ SREC-IIs may be transferred manually from the account of an ADI-eligible project to the EDC Joint GATS Account. Following a grace period of one month subsequent to the establishment of a GATS Account for an ADI-eligible project, the NJ SREC-II Administrator would be allowed to cease accepting manual NJ SREC-II transfers from an ADI-eligible facility pending the execution of an Irrevocable Standing Order.
- Solar aggregators, brokers, and installers acting on behalf of solar facility owners would be allowed to perform the role of transferor, register on behalf of the facility owner and create an Irrevocable Standing Order for each eligible facility for which it is reporting generation into GATS.
- The NJ SREC-II Administrator would be responsible for confirming that each account holder created an Irrevocable Standing Order; that each Irrevocable Standing Order is complete, identifies the transferor, and represents 100 percent of all NJ SREC-IIs for that generator; that the solar aggregator, broker, installer, or other account holder has the authority to create the Irrevocable Standing Order; and that the automatic transfer of NJ SREC-IIs has occurred.
- Irrevocable Standing Orders authorizing transfers can only be terminated with the written consent of the parties.
- All solar electricity must be metered using an ANSI c-12 certified meter in conformance with N.J.A.C. 14:8-2.9(c).
- A NJ SREC-II would be required to be redeemed in GATS in the Energy Year in which the electricity was produced or in the following EY. Electricity generated by an ADI-Eligible Facility that is not redeemed in GATS in the EY in which the electricity was produced or in the following year, would not be eligible for a NJ SREC-II, but would be eligible to serve as the basis for the creation of a New Jersey Class I REC.

### *RPS Compliance Obligations*

Staff recommends that a NJ SREC-II created for eligible electricity be prohibited from being used for used for a purpose other than satisfying the SuSI Program carve-out to the NJ Class I requirements of the RPS.

N.J.A.C. 14:8-2.3 establishes the amount of renewable energy required to be procured by TPS/BGS Providers to satisfy the RPS. The SREC-II obligation is expressed as a percentage of retail sales in a given EY which will not be known until the conclusion of each EY when the volume of retail sales subject to the RPS has been determined.

Staff recommends that the SREC-II Administrator purchase the SREC-IIs from eligible system owners on a periodic basis and allocate the SREC-IIs to TPS/BGS Providers annually based on their market share of retail electricity sold during the relevant EY. The SREC-II Administrator would be allowed to retire the SREC-IIs on behalf of TPS/BGS Providers.

The Proposed SuSI rules would follow the method set forth at N.J.A.C. 14:8-2.3 (r) and (t) for the allocation of SREC-IIs for to meet the Statewide Class I RPS obligation to individual TPS/BGS Providers. MW-hour SREC-II requirements would be additional to the SREC and TI requirements, and would reduce the New Jersey Class I requirement of a TPS/BGS Provider on a one-to-one basis.

### *Prevailing Wage Requirements*

Staff received a number of comments, both during the stakeholder meetings and in written comments, about the enormous benefits that accrue to working men and women through the use of union labor to construct solar facilities in New Jersey. Staff agrees with these comments, and notes that any solar generation facility receiving incentives associated with participation in the SuSI program (like the SREC and TI Programs before) of 1 MW or greater in size, (as measured in direct current), is subject to the New Jersey Prevailing Wage Act.<sup>31</sup>

Pursuant to the Prevailing Wage Act:

[n]ot less than the prevailing wage rate shall be paid to workers employed in the performance of any construction undertaken in connection with . . . or undertaken to fulfill any condition of receiving Board of Public Utilities financial assistance[.]

The phrase “Board of Public Utilities financial assistance” is defined to include “any [] credit . . . incentive, or other financial assistance which is, in connection with construction, approved, funded, authorized, administered or provided by the Board of Public Utilities, whether the assistance is received before, during or after completion of the construction[.]”<sup>32</sup>

The incentives offered pursuant to the SuSI Program are specifically designed to “encourage the continued efficient and orderly development of solar renewable energy generating sources throughout the State.”<sup>33</sup> NJ SREC-IIs are expressly designed to promote the construction of solar generation facilities that otherwise would not be supported by energy market prices. The SuSI

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<sup>31</sup> The New Jersey Prevailing Wage Act. (N.J.S.A. 34:11-56.25, *et seq.*) (“Prevailing Wage Act”).

<sup>32</sup> N.J.S.A. 48:2-29.47. This definition specifically excludes financial assistance provided in connection with residential dwellings inhabited by the incentive recipient.

<sup>33</sup> N.J.S.A. 48:3-87.8(d)(3).

Program meets this policy goal by providing NJ SREC-IIs to qualified solar generators. NJ SREC-IIs are a form of financial incentive, paid per \$/MW-hour of eligible solar energy production, which are only paid out upon production of clean energy.

Further, New Jersey Statute 48:3-87 clarifies that, under the SREC Program, projects under 1 MW in size are not subject to the Prevailing Wage Act.<sup>34</sup> During the establishment of the TI Program, the Board ordered that projects eligible for the TI Program must comply with all rules and regulations applicable to recipients of SRECs, which includes both the requirement that projects receiving SRECs are subject to the Prevailing Wage Act and that projects under 1 MW in size are not.<sup>35</sup> The TI Rule itself states, “[e]xcept as modified in this subchapter all TI Program projects must comply with all rules and regulations of the [SREC Registration Program] at N.J.A.C. 14:8-2.4.”<sup>36</sup> In relevant part, N.J.A.C. 14:8-2.4(b)(3) states that the Prevailing Wage Act applies to “a facility which . . . has a capacity of one megawatt dc or greater[.]” Staff sees no reason to depart from this precedent in connection with the establishment of the SuSI Program. Co-located solar facilities aggregating to 1 MW or greater shall be considered subject to the Prevailing Wage Act.

NJ SREC-IIs are therefore related to the “construction” of solar generating facilities and “in connection with . . . or undertaken to fulfill any condition of receiving Board of Public Utilities financial assistance”; namely, the contractual obligation to produce clean energy to the benefit of New Jerseyans. Therefore, under the Prevailing Wage Act, the construction of any facility of 1 MW or greater in size and eligible to receive SREC-IIs is subject to the Prevailing Wage Act.

### ***New Technologies***

A number of stakeholders requested clarity on whether and how new technologies would be treated in the ADI Program. Staff notes that the incentive levels recommended for approval in this Order were initially based on in-depth cost build-up modeling for each technology class, as more fully described elsewhere in this Order. Representative project costs constituted a fundamental piece of the equation that produced those incentive levels and the Board was able to draw from a sample of thousands of solar projects to determine the appropriate values. Unlike the data-driven process for establishing the ADI Program incentive levels, however, there is unlikely to be a sufficiently large data set to derive final, class-wide incentive levels for specific new technologies that may not fit within one of the market segments defined in this Order.

However, in order to maintain flexibility and allow for the evolution of the SuSI Program, Staff recommends that the Board continue to accept petitions from prospective solar developers of innovative technologies that may warrant development of a separate incentive level. Staff envisions that the process for assigning new incentive levels is comparable to the process set forth by the Board in the TI Program order, which directs entities seeking a new incentive level to address costs and revenues of the project in a manner that is, to the extent possible, consistent with the modeling undertaken by Staff and the Consultant to establish the incentive levels in the

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<sup>34</sup> As N.J.S.A. 48:3-87 states, “[t]he issuance of SRECs for all solar electric power generation facility projects pursuant to this section, for projects connected to the distribution system with a capacity of one megawatt or greater, shall be deemed ‘Board of Public Utilities financial assistance’ as provided pursuant to section 1 of P.L. 2009, c. 89 (C.48:2-29.47).”

<sup>35</sup> Id.

<sup>36</sup> N.J.A.C. 14:8-10.4(i).

## ADI Program.

Staff recommends that the Board find that new or innovative solar technologies can file a petition with the Board requesting approval of a specific incentive level. Staff further recommends that the Board expressly restrict its consideration of any petitions filed to those that involve innovative technologies, and that the Board announce its intention to reject petitions for different incentive levels based on underlying system economics or other circumstances that are not directly related to a unique application of solar technologies.

### *Dual-Use Agriculture (“Agrivoltaics”)*

New Jersey has a rich agricultural heritage that must be considered with the State’s move toward a carbon-free energy sector. The Board received many comments highlighting the potential for “dual-use” solar facilities to keep land in agricultural use while delivering on the State’s twin commitments to clean energy and agriculture/open space. Staff notes that the recent Dual-Use Act directs the Board to implement a pilot program specifically addressing dual-use projects. Staff therefore recommends that the Board use the legislatively mandated dual-use pilot program as the vehicle for moving dual-use solar forward in New Jersey. Staff notes that the Dual-Use Act requires the Board to work with the Secretary of Agriculture and State Agricultural Development Committee (“SADC”) on the development of standards and practices regarding the agricultural or horticultural use of lands under the solar panels. Staff anticipates that the development of the dual-use pilot program will commence later this year.

### *Storage Technologies in the ADI Program*

A number of commenters discussed the inclusion of a battery or storage adder into the ADI Program. While Staff is generally supportive of expanding customer access to distributed storage technologies, it believes that it is premature to establish a specific adder or market segment for distributed storage, and recommends that the Board defer such issues to a future proceeding. Staff further recommends that solar + storage be considered in the context of the CSI Program. Staff also remains committed to investigating the potential to allow distributed storage developers to place offers that aggregate a pool of distributed resources into a single “virtual power plant” bid as part of its development of the CSI Program.

### *NJ Land Use*

Staff received a number of comments addressing issues around where solar facilities should be sited, particularly how to apportion incentives to projects located on the built environment versus on open space or farmland. Since those comments were received, the Solar Act of 2021 mandated specific siting requirements applicable to grid supply solar facilities and net metered projects over 5 MW. Because all of the siting requirements in the Act apply to the CSI Program, Staff recommends deferring additional siting discussions until that program is established. With regard to the ADI Program established in this Order, however, Staff recommends that the Board rely on existing law to govern the siting of ADI Program facilities. As a practical matter, most net metered facilities included in the ADI Program are sited on the already built environment, and do not generally significantly impact farmland or open space. However, Staff suggests that, as the design of the CSI Program continues, the Board reaffirm that it will seek to uphold the State’s policies of expanding New Jersey’s commitment to affordable renewable energy while also preserving and protecting open space and farmland. Staff continues to suggest that this is best accomplished by encouraging the development of solar facilities on the built environment and

marginal lands and away from open space, flood zones, forested lands, high value agricultural lands and other areas especially vulnerable to climate change.

Staff notes that the majority of comments received on siting issues were in relation to the CSI program, which includes grid supply facilities and net metered non-residential facilities over 5 MW. These larger facilities, in general, have greater potential implications for open space and farmland than smaller facilities. This is for two reasons – first, larger facilities simply have the potential to use more land. Second, facilities covered under the ADI Program are primarily net metered facilities, which means that they have to be co-located with load, which generally limits their ability to take advantage of the cost savings of constructing on open space. Staff continues to recommend that the Board adopt rules regarding siting restrictions in connection with its finalization of the CSI Program and expects to do so in consultation with DEP, the New Jersey Department of Agriculture (“NJDA”), and SADC. The goals of these rulemaking efforts will be to reasonably minimize potential adverse environmental impacts and limit development on prime agricultural soils and soils of statewide importance located in Agricultural Development Areas as per the Solar Act of 2021. Additionally, Staff recommends that the Board specify that no solar facility located on preserved farmland will be eligible for incentives through the SuSI Program, unless expressly allowed under existing law.

### ***Overall Competitive Solar Incentive (CSI) Program***

A key component of the SuSI Program proposed in this Order is the Competitive Solar Incentive Program for grid supply projects and larger net metered non-residential projects (over 5 MW). Staff recognizes and appreciates the many thoughtful comments and suggestions filed by stakeholders in response to the competitive market design concepts set forth in the Straw Proposal. As discussed below, Staff recommends that the Board direct Staff to continue to work with interested stakeholders to address the needs of the competitive incentive design in stakeholder conversations later this summer and into the fall and winter. Staff’s current goal is to bring the final CSI Program proposal back to the Board by the end of the year and hold the first competitive solicitation in early-to-mid 2022.

Commenters generally agreed that the competitive solicitation model has the potential to significantly expand market segments, such as grid supply on warehouse rooftops and other types of grid supply projects, which have thus far been limited by administrative or regulatory barriers.

After reviewing the comments, Staff continues to see key benefits of competitive-determined incentive program:

- *First*, a competitive solicitation process will ensure that New Jersey ratepayers are incentivizing the projects seeking the lowest incentive contribution from ratepayers;
- *Second*, the incentive values will be flexible and reflective of the most recent market conditions;
- *Third*, the fixed, long-term, and guaranteed nature of the incentive provides a relatively low-risk incentive structure for developers, thereby encouraging investment of private capital; and

- *Fourth*, 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, including by designing systems to discharge electricity at times of the day when prices are high.

Commenters were generally supportive of the idea that the CSI Program would be run annually by an independent solicitation administrator, and that there should be separate market segments run in parallel. In the Straw Proposal, Staff proposed that there would be four market segments: one for basic grid supply projects; one for grid supply projects located on targeted desirable land uses (for example, the built environment including rooftops and contaminated sites and landfills); one for solar + storage projects; and one for large net metered non-residential projects (above 5 MW). As discussed below, in addition to these segments, Staff now recommends that the Board consider creation of a fifth market segment for projects on contaminated sites and landfills.

In terms of specific program design, including such key issues as the use of a declining block, pay-as-bid, single-clearing price, or other price setting mechanism, Staff received a number of comments suggesting a variety of options which would be considered in the further proceedings as directed by the Board. Commenters also highlighted the need for additional work on how to incorporate storage into the CSI Program, the details of which would likewise be considered in the subsequent stakeholder effort.

Comments were largely supportive of the concept that the CSI Program would be open only to new solar resources (i.e., those that are not currently registered to participate in another state incentive program, and have not reached commercial operation), a fixed incentive level, and a Qualification Life of either 15 or 20 years. Staff continues to assume that these elements will be incorporated into the final CSI Program design.

However, one major change from the Straw Proposal is moving the eligibility threshold for projects participating in the administrative portion of the SuSI Program from 2 MW to 5 MW. This proposal received overwhelming support from stakeholders, who made compelling arguments that the ADI Program better suits the needs of “medium” sized net metered projects than the CSI Program would, as projects between 2 MW and 5 MW could struggle with the longer timeline associated with a competitive solicitation process.

Staff also heard a number of concerns from parties about project maturity deadlines, escrows and fees, siting restrictions, and developing solar projects on contaminated lands, among others. In response, Staff suggests that the Board direct Staff to address these key issues through a consensus-driven stakeholder process to ensure that the CSI Program has the investor confidence necessary to be a success, including:

- Appropriate project maturity requirements that balance the need for project maturity with investor risk;
- Ensuring that the addressable market is of sufficient size to attract commercial interest (e.g., considering whether to aggregate two years of solicitations into a single year or whether to seek fewer MWs in early years);
- The setting of appropriate fees and escrows;

- Whether the Board should allow more than the 24 months proposed in the Straw Proposal for projects to reach commercial operation, and if so, how long;
- Whether to utilize a declining block, paid-as-bid, or single-clearing price market design to encourage price competition and build investor confidence;
- How energy storage + solar hybrid projects should be evaluated, including the format of bids, standard block sizes, and performance/availability requirements; and
- Whether the Board should consider “pricing guardrails” in early years to minimize the risks associated with a new market design.

Staff continues to recommend that the Board set a budget target (in dollars) for each of the competitive solicitation market segments in advance of each solicitation to provide maximum certainty regarding the anticipated size of the CSI Program. Setting budget-based procurement targets (rather than MW or MW-hour based targets) allows for the procurement for more capacity as bid prices decrease. However, Staff recommends that these details also be addressed in the subsequent proceeding.

*Unique Issues Associated with Contaminated Sites and Landfills and Public Entities in the CSI Program.*

Staff notes that a number of commenters expressed concerns about the participation of two specific business models in the CSI Program: contaminated sites and landfills, and public entity projects.

Contaminated Sites and Landfills

Staff takes seriously concerns expressed by some stakeholders about contaminated sites and landfill projects participating in the CSI Program. While many of the issues highlighted by this subset of developers – including project maturity requirements and the need to set incentive levels relatively early on in the development process to limit at-risk development spend – will be addressed as part of the forthcoming CSI Program stakeholder process, Staff takes this opportunity to reiterate that it continues to see a number of benefits to both the industry and New Jersey ratepayers by incorporating contaminated sites and landfill projects into the CSI Program, while making accommodations for their unique concerns.

Staff notes that the Solar Act of 2021 introduces a new term – “contaminated site or landfill” – to govern eligibility for solar projects located on brownfields, areas of historic fill, and properly closed sanitary landfills, or what was previously known as the subsection (t) program, named after the relevant section in the Solar Act of 2012. The new definition is inclusive of the three types of lands encompassed by the subsection (t) program, but also covers a wider array of marginal lands that may be contaminated or polluted, but which are not technically brownfields. Additionally, the new language specifically states that solar projects located on “associated disturbed areas” qualify to participate in the new competitive program. Staff notes that the Solar Act of 2021 requires the Board to consult with New Jersey Department of Environmental Protection to assess qualification of land as contaminated, comparable to today’s process for certifying projects pursuant to subsection (t). Commenters were generally supportive of the definition proposed in

the Straw Proposal, which largely tracks the language eventually enacted as part of the Solar Act of 2021.

Staff received several comments arguing that solar projects on contaminated sites or landfills should be exempted from participation in the CSI Program. However, Staff sees no basis for the suggestion that competition would not help discipline prices for projects in the contaminated site and landfill market segment. Contrary to suggestions from commenters that there is no appreciable difference in cost across contaminated lands projects, Staff conducted an intensive review of the confidential cost data submitted by parties that have already constructed such projects. The data shows a more than two-fold difference in installed cost between the lower- and higher-cost projects qualified to participate in the subsection (t) program. Staff sees no evidence to suggest that this historic difference between the highest and lowest cost contaminated lands developments will suddenly end. All other things being equal, New Jersey consumers are better served by buying solar power from a contaminated site or landfill project with a lower cost profile than a higher cost profile.

Likewise, several commenters argued that the extra costs of building solar on contaminated sites and landfills requires a significant premium compared to incentives to develop solar on non-contaminated sites. Staff disagrees with suggestions that an incentive level of \$150/MW-hour, or more, as argued by several commenters, is necessary to incent solar development on contaminated sites and landfills. The extensive modeling effort undertaken by Staff and its consultant, using actual cost data, indicates that the appropriate solar incentive for contaminated lands projects in New Jersey is \$100/MW-hour. Indeed, the market response in the TI Program has been exceptionally strong: the 195 MW of subsection (t) applications submitted to the Board since the opening of the TI Program in May 2020 is 87% of the total capacity installed under subsection (t) from the beginning of the program through June 30, 2021 (224 MW). Staff sees this as compelling evidence that the \$152/MW-hour incentive level provided in the TI Program was likely higher than necessary to fund solar on contaminated sites or landfills. For the same reasons, Staff does not find compelling the suggestion that contaminated lands projects be able to foist the risk of higher-than-expected development costs off on captive New Jersey consumers by allowing for after-the-fact petitions for a higher incentive, as suggested by one commenter.

#### Public Entities

Staff received a number of comments from public entity developers of large net metered projects that expressed concerns about how public bidding requirements would mesh with the competitive solicitation. As with projects on contaminated sites or landfills, Staff takes seriously the challenges that public entities may face in their participation in the CSI Program, and, in particular, the challenges of layering a public entity procurement over a competitive solicitation process. Staff notes that public entities have often received special accommodation in New Jersey's solar programs, and Staff recommends that the State continue to fully support these projects.

Staff recommends that the Board direct Staff to address the unique elements of solar for public entities in its CSI Program design. Specifically, Staff will work toward developing a consensus-based solution that would accommodate the unique needs of this market segment.

#### **ADHERENCE TO THE CLEAN ENERGY ACT'S COST CAP**



One of the most important elements in the Board's consideration of the ADI Program is making sure that it is both affordable for New Jersey consumers, as well as compliant with the Cost Cap set forth in the Clean Energy Act of 2018, as amended by the Solar Act of 2021. While the Legislature adopted the Cost Cap to manage the total amount of ratepayer spending devoted to certain clean energy programs, it also expressed clear support for meeting long-term carbon emissions reduction goals and a robust clean-energy economy.

Staff notes that, contemporaneously with this Order, the Board is proposing rules that would govern the process that the Board uses to calculate the Cost Cap and the process by which the Board would adhere to its dictates ("Cost Cap Rule Proposal").<sup>37</sup> Both the Cost Cap Rule Proposal and the items addressed in this Order generally track the recommendations in the Straw Proposal, with this Order focusing on policy implementation and the Cost Cap Rule Proposal largely focused on the mechanics for how the Board will carry out its responsibilities under the Cost Cap.

The full legislative history of Section 38(d)(2) of the Clean Energy Act is addressed at length in the Cost Cap Rule Proposal. For reference, including the amendments in the Solar Act of 2021 (which are indicated in underline), Section 38(d)(2) now reads as follows:

... the board shall ensure that the cost to customers of the Class I renewable energy requirement imposed pursuant to this subsection shall not exceed nine percent of the total paid for electricity by all customers in the State for energy year 2019, energy year 2020, and energy year 2021, respectively, and shall not exceed seven percent of the total paid for electricity by all customers in the State in any energy year thereafter; provided that, if in energy years 2019 through 2021 the cost to customers of the Class I renewable energy requirement is less than nine percent of the total paid for electricity by all customers in the State, the board may increase the cost to customers of the Class I renewable energy requirement in energy years 2022 through 2024 to a rate greater than seven percent, as long as the total costs to customers for energy years 2019 through 2024 does not exceed the sum of nine percent of the total paid for electricity by all customers in the State in energy years 2019 through 2021 and seven percent of the total paid for electricity by all customers in the State in energy years 2022 through 2024.

In calculating the cost to customers of the Class I renewable energy requirement imposed pursuant to this subsection, the board shall not include the costs of the offshore wind energy certificate program established pursuant to paragraph (4) of this subsection. In calculating the cost to customers of the Class I renewable energy requirement, the board shall reflect any energy and environmental savings attributable to the Class I program in its calculation, which shall include, but not be limited to, the social cost of carbon dioxide emissions at a value no less than the most recently published three percent discount rate scenario of the United States Government Interagency Working Group on Social Cost of Greenhouse Gases. The board shall take any steps necessary to prevent the exceedance of the cap on the cost to customers including, but not limited to, adjusting the Class I renewable energy requirement.

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<sup>37</sup> See Docket No. QX21060944 – In the Matter of a Rulemaking Proceeding to Define the Class I Renewable Portfolio Standard Cost Cap Pursuant to P.L. 2018, c. 17 (July 28, 2021).

Additionally, the Solar Act of 2021 at section 4(h) states that the costs of the CSI Program would not count against the Cost Cap:

The costs of the competitive solicitation process, including the issuance of renewable energy incentive payments pursuant to paragraph (4) of subsection c. of this section, shall not be subject to the Class I renewable energy requirement cost cap established by paragraph (2) of subsection d. of section 38 of P.L.1999, c.23 22 (C.48:3-87).

The Board first initiated a proceeding on the definition of the Cost Cap in December 2019. On January 6, 2020, Staff issued a “Staff Straw Proposal on Defining the Clean Energy Act of 2018’s Statutory Cost Caps,” which discussed, among other topics, the appropriate way to determine the relevant Cost Caps (“Cost Cap Straw Proposal”). Following the issuance of the Cost Cap Straw Proposal, Staff held an in-person stakeholder meeting on January 15, 2020, and received written comments by January 31, 2020. The Straw Proposal continued the discussion on how to calculate the Cost Cap and Staff appreciates the many thoughtful comments received by stakeholders.

The Clean Energy Act’s statutory text determines compliance with the Cost Cap through the use of the following equation (“Cost Cap Equation”):

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

The programs subject to the Cost Cap (i.e. the numerator) are:

1. The legacy SREC program;
2. The TI Program that provides TRECs;
3. The SREC-IIs awarded as part of the ADI Program; and
4. Class I RECs used to meet the RPS.

Collectively, Staff refers to these programs as the “Cost Cap-Applicable Programs.” The statute specifically omits costs of ORECs and the costs of the CSI Program from the numerator, but the costs are necessarily included in the total paid for electricity by all customers in the State (the denominator). Additionally, the Solar Act of 2021 directs the Board to “reflect any energy and environmental savings attributable to the Class I program in its calculation” of the Cost Cap.

### ***Policy Issues in Implementing the Cost Cap***

#### ***Impact of the Cost Cap on Incentive Levels***

Staff received a number of comments suggesting that certain changes to the Cost Cap calculation methodology would allow the Board to raise incentive levels. Staff generally disagrees with the proposition that it should tie incentive levels to the “headroom” available under the Cost Cap calculation. Creating such a linkage would encourage developers of solar projects to focus on regulatory efforts to increase the Cost Cap rather than on competing to lower the incentives

necessary to build more solar. Lower prices benefits consumers, while still creating a robust solar industry, and as noted above, the Board's commitment to customer affordability transcends compliance with the Cost Cap.

While the proposed ADI incentive levels set forth above are not contingent on the Cost Cap calculation, Staff has carefully reviewed the MW targets that are possible under the Cost Cap established by the Clean Energy Act, as amended by the Solar Act of 2021. Indeed, the State's ambitious targets are tempered by the need to mitigate the impact to ratepayers of these clean energy programs. The impact of this is that in future years, the Board may authorize fewer new facilities to register in the ADI Program in order to lower the total cost of the ADI Program if necessary to ensure Cost Cap compliance. In short, while the Cost Cap is not anticipated to have an impact on incentive levels, it may impact the number of MWs authorized to register in the ADI Program.

### *Class I REC Purchases and the RPS*

A number of parties correctly noted that, because of the Cost Cap, there may be years when the Cost Cap limits the Board's ability to achieve both the RPS requirement and authorize the full complement of new solar registrations into the ADI Program that would be allowed but-for the Cost Cap. The Clean Energy Act allows the Board to "...take any steps necessary to prevent the exceedance of the cap on the cost to customers including, but not limited to, adjusting the Class I renewable energy requirement," which Staff interprets as allowing the Board to reduce the required amount of Class I RECs retired in order to keep the total cost of the Cost Cap-Applicable Programs below the Cost Cap. Staff notes that, unlike the SREC, TI, and SuSI Programs, which are structured as payments to eligible resources over a defined number of years, the number of Class I RECs purchased and retired in a given year may vary based on the available Cost Cap headroom.

In cases where the requirement for Class I RECs purchases and retirements conflicts with the planned purchase of *additional* SREC-IIs (i.e. the allocation of new capacity to the ADI Program), Staff recommends that the Board honor one of the design principles incorporated into the initial solar transition documents; namely, to meet the statutory and policy requirement to meet 50% of the State's energy by matching that consumption with Class I RECs. This policy preference for low cost clean energy in the event that the Cost Cap requires additional savings is reflected in the Board's Cost Cap Rule Proposal, also on today's agenda, which would require that new ADI Program spending be cut prior to cutting Class I REC purchases:

The Board shall first reduce the capacity allocations budgeted to the ADI Program established at [proposed rules] N.J.A.C. 14:8-11.7 for the upcoming Energy Year. If the reduction in the ADI Program capacity allocations is insufficient to enable compliance with the cost cap, the Board shall reduce the upcoming Energy Year's Class I RPS compliance obligations established at N.J.A.C. 14:8-2.3(a) until compliance with the cost cap is reestablished.

Cost Cap Rule Proposal at proposed N.J.A.C. 14:8-2.12(d). The Cost Cap Rule Proposal therefore protects the RPS by requiring the Board to curtail new commitments to solar capacity rather than decrease the required RPS purchases, particularly given the lower cost of meeting the NJ Class I RPS requirements and the State's unalterable commitment to meeting its larger clean energy goals.

***Calculating the Denominator (Total paid for electricity by all customers in the State)***

In order to estimate the denominator, the Straw Proposal suggested looking to the plain language of the Clean Energy Act's requirement that the Cost Cap calculation include "total paid for electricity by all customers in the State." Calculating a "total paid for electricity" requires consideration of payments for electricity by customers to both utilities and non-utilities.

None of the commenters have convinced Staff to depart from its recommendation that calculation of the Cost Cap Denominator start with the calculations performed by the Energy Information Administration ("EIA"), which performs extensive analysis on a monthly and annual basis regarding total electricity sector expenditures in New Jersey EIA Form-861 Monthly, Schedule 2. As noted in the Straw, the EIA states that the following items are included in its calculations:

Revenue that should be included on this form are revenue from sales of electricity to those customers purchasing electricity for their own use and not for resale, revenue from state and local income taxes, energy or demand charges, customer service charges, environmental surcharges, franchise fees, fuel adjustments and other miscellaneous charges applied to end-use customers during normal billing operations. Monthly revenue data include end use customers who have permission to directly purchase power from the wholesale market, please note that wholesale revenue data is collected on EIA-861A.

***Net Metered Host-Owned Solar and Other Generation Not Included in EIA Data***

Staff recommends that the denominator also include an estimate of the costs associated with net metered solar projects that are host-owned, amortized over their expected life, as well as other similar costs not captured in the EIA data. As noted in the Straw Proposal, Staff's understanding is that host-owned solar system costs are not reflected in the revenue from retail sales data collected and published by EIA. Staff anticipates that these costs will not add a large amount to the denominator, but for completeness recommends including them as part of the total paid for electricity. This decision is also reflected in the Cost Cap Rule Proposal at proposed N.J.A.C. 14:8-2.12(a)(3), which specifies that the Board shall include "the capital costs of electric generating facilities not otherwise covered in the EIA data amortized over their expected life, including, but not limited to, host-owned behind-the-meter solar projects."

***Combined Heat & Power ("CHP")***

Staff recommended that CHP costs not be separately included in the calculation of the Cost Cap. While several parties suggested including these costs in the denominator, Staff finds that the EIA data typically includes CHP facilities of over 1 MW in their cost estimates based on data from Form EIA-860 and that the sales associated with smaller facilities are included in Schedule 3B, and thus are already included in the total sales data. Therefore, Staff does not recommend including an estimate of any additional CHP costs in the denominator.

***Forecasting the Denominator in Future Energy Years***

For purposes of forecasting the Cost Cap in future Energy Years (see the discussion of the implementation of the Cost Cap further below), Staff proposes to forecast the total paid for

electricity by all customers in the State using a net annual increase of 0.5%, with an additional adjustment for ORECs starting in 2024. The proposed 0.5% increase is in line with forecasts used by EIA and the regional electricity market operator, PJM Interconnection (“PJM”), and reflects a small anticipated load growth as well as the cost of new clean energy incentives (particularly ORECs, which won’t materialize until the first phase of offshore wind projects becomes operational around 2024, but will likely be an increase of around 1% of total electricity cost in New Jersey from the first 1,100 MW project).

### ***Calculating the Numerator (Cost to customers of the Class I renewable energy requirement)***

In compliance with the Clean Energy Act of 2018, as amended by the Solar Act of 2021, Staff recommends that the Board adopt the following approach to calculating the Cost Cap numerator: the cost to New Jersey customers of the Class I renewable energy requirement should be equal to the cost of the Cost Cap-Applicable Programs, reduced by the dollar value of any energy and environmental savings attributable to the Class I program. As stated previously, the Cost Cap-Applicable Programs are the SREC Program, the TI Program, the ADI Program, the Class I RPS, and any future Class I program created as part of the RPS. Each of these components to the calculation of numerator are described in further detail below, including a discussion of both forecasting and calculation of actual values. Further, Staff notes that the Cost Cap Rule Proposal also discusses the methodology and process that the Board will use to maintain Cost Cap compliance and the proposed rules will govern in the case of any discrepancies.

While a number of commenters proposed alternative approaches – some suggesting higher numbers, some suggesting lower numbers – no stakeholder made a compelling case for Staff to recommend a deviation from the calculations initially set forth in the Straw Proposal, other than as specifically addressed in this section.

#### ***Annual Cost of the SREC Program***

As explained in the Straw Proposal, the annual cost of the SREC Program is a function of two main factors: the quantity of SRECs retired for compliance purposes (as produced by eligible generators on an annual basis or banked from a previous year’s production) and the market-derived price of each retired SREC. The total cost of the SREC Program is the annual quantity of SRECs retired multiplied by the price per SREC for that year. Both of these values will be found in the annual Renewable Portfolio Standard compliance reports produced by Board Staff.

Forecasting the future cost of the SREC Program will also necessitate estimating the quantity of SRECs retired and the cost per SREC. The quantity of SRECs retired is a percentage of retail sales, and is therefore based on the same assumptions as discussed in relation to the denominator (0.5% increase).

Because SRECs are a traded product, some under long-term contracts and others purchased on the spot market, there is significant uncertainty around the expected market prices for SRECs in the future. As several parties noted, compliance with the Cost Cap is highly dependent on assumptions about SREC prices. As part of the TI stakeholder process, Cadmus produced a high, medium, and low sensitivity of SREC prices going forward. In the Capstone Report, Cadmus assumed SRECs traded at 80% of the solar alternative compliance payment “SACP” price. In

response to the Straw Proposal, several industry participants submitted comments suggesting that future SREC prices were expected to trade significantly above or below the sensitivities produced by Cadmus. Staff continues to expect SRECs to gradually fall in price, as Cadmus suggested. However, for purposes of forecasting and in the interest of choosing a more conservative assumption in order to protect compliance with the Cost Cap, Staff recommends estimating SREC prices using 85% of the SACP price.

#### *Annual Cost of the TI Program*

The TI Program cost is the amount collected by the EDCs from ratepayers, which itself is based on the number of TRECs purchased and retired by the TREC Administrator on behalf of the TPS/BGS Providers, multiplied by the value of each TREC. This data will be provided at the end of each Energy Year by the TREC Administrator and the EDCs.

For forecasting, Staff will use the EDC's rate recovery schedule to the extent has been established. This schedule, developed by the EDCs, is based on input from the TREC Administrator and Staff. The rate recovery schedule is based on an estimate of the expected solar production from TI projects (both installed and expected to be installed) multiplied by the expected weighted average price of TRECs). For months where the cost recovery schedule has not been established, the forecast will use the same methodology taking into account any required true-up.

#### *Annual Cost of the Class I REC Program*

As noted above, Staff recommends that the Board clarify that it would reduce new capacity made available in the ADI Program prior to reducing the Class I REC requirements to balance the Cost Cap. However, the cost of Class I RECs continues to be a key factor in the Cost Cap calculation. Actual data on number of Class I RECs retired and price per REC retired is made available annually in the RPS compliance reports issued by Staff.

For forecasting purposes, Staff recommends that the Board adopt the methodology set forth in the Straw Proposal. While the cost of Class I RECs varies from year to year, Staff recommends assuming a \$13/Class I REC for purposes of the Cost Cap modeling. The RPS compliance requirement is set forth in the Board's rules at N.J.A.C. 14:8-2.3, and is a function of retail sales, which is assumed to increase by 0.5% annually. Staff's modeling assumes that the Board does not reduce the RPS to maintain compliance with the Cost Cap.

#### *Adjustments to the Numerator to Reflect Net Benefits Associated with Solar*

As explained in the Cost Cap Rule Proposal, the Solar Act of 2021 specifically directs the Board to "reflect any energy and environmental savings attributable to the Class I program in its calculation" of the cost to customers of the Class I renewable energy requirement. The Act effectively directs the Board to conduct two separate adjustments to the "cost to customers" (i.e. the numerator). In interpreting the Act, the Board understands the term "savings" as requiring the quantification of ancillary benefits of the Class I resources, either in terms of reducing wholesale electricity market costs or in reducing the emissions of greenhouse gases.

Stakeholder comments were received prior to the enactment of the Solar Act of 2021. At the time, comments were mixed on how the Board could adjust the numerator to reflect energy and other cost reductions associated with the State's prior investments in solar. Some comments urged the

Board to include greenhouse gas reductions and other environmental and public health benefits in its calculation of the Cost Cap. Others suggested that the Clean Energy Act does not accommodate any adjustments to the numerator to reflect the net costs of these solar programs. The Solar Act of 2021 provides additional clarity on whether or not to include a quantification of certain benefits of solar.

In application of the Solar Act of 2021, Staff recommends that the Board make two adjustments to the cost of the Class I requirement: 1) include consideration of the energy benefits attributable to the Class I Program; and 2) include consideration of the environmental benefits attributable to the Class I Program. The result is a Cost Cap calculation that Staff believes better reflects the full range of benefits and costs of the Cost Cap-Applicable Programs. Staff notes that recently implemented utility-run Energy Efficiency (“EE”) programs that adopted the New Jersey Cost Test (“NJCT”) similarly quantified the net benefits associated with EE investments in New Jersey for use in program benefit-cost analysis.

*Energy Benefits Attributable to the Class I Program: Demand-Reduction-Induced Price Effects*

For energy benefits, Staff proposes that the Board assess what electricity costs would have been without the Class I REC program, compared to the actual costs reported by the regional electricity market operator, PJM. As Staff explained in the Straw Proposal:

The reduced load associated with solar deployment is expected to reduce indirect energy and capacity prices for all New Jersey consumers. PJM operates a single-clearing price market, and the price is set at the point that supply and demand meet. PJM determines the clearing price by creating a “supply stack” of all eligible resources based on their strike price. The least expensive resources are lower on the supply stack and are selected first. The penultimate least expensive resource is selected next, and so on, until supply matches the anticipated demand. However, solar investments reduce demand, which in turn tends to push prices down. This effect is often referred to as the Demand-Reduction-Induced Price Effect (“DRIPE”) and occurs in both PJM energy and capacity markets.

See Staff Straw Proposal at p. 33. Studies of energy markets (including NREL 2018<sup>38</sup> and LBNL 2021<sup>39</sup>) have shown that reduced energy demand, attributable to net metered solar for example, reduces total demand in the wholesale market. The addition of low-marginal-cost supply of electricity through grid-supply solar projects shifts the merit-order supply curve to the right. These two effects translate directly into reduced wholesale prices for all market participants. These savings represent a societal benefit to all consumers in New Jersey, whether they invested in solar themselves or not, and is therefore appropriate to include as benefits from deploying solar energy projects in New Jersey. DRIPE effects are relatively small when expressed in terms of an impact on market prices. However, DRIPE impacts can be significant when expressed in absolute

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<sup>38</sup> NREL 2018. Jenkin, Thomas, Andrew Larson, Ben King, Mark Ruth, and Paul Spitsen. The Use of Statistically Based Rolling Supply Curves for Electricity Market Analysis: A Preliminary Look. Golden, CO: National Renewable Energy Laboratory. NREL/TP-6A20-70954. <https://www.nrel.gov/docs/fy18osti/70954.pdf>.

<sup>39</sup> LBNL 2021. Mills, A., R. Wiser, D. Millstein, J.P. Carvallo, W. Gorman, J. Seel, and S. Jeong. The Impact of Wind, Solar, and Other Factors on the Decline in Wholesale Power Prices in the United States, in Applied Energy. Pre-print November 2020.

dollar terms and applied to all wholesale purchases for New Jersey consumers.

Consistent with the Cost Cap Rule Proposal, to estimate the impact of the energy and capacity market savings attributable to the Class I Program, Staff proposes to estimate the annual energy savings to determine the impact of reduced load and lower cost clean energy resources on electric and capacity energy prices. Staff proposes to use the methodology described in the Straw Proposal, i.e. to use publically available analysis of these impacts, as well as data on electric energy and capacity prices from PJM and other sources to estimate the impacts of the Class I Program resources on electric energy and capacity costs for New Jersey ratepayers. Energy benefits values will be calculated on an Energy Year basis (June–May) and published by Board Staff annually.

### *Environmental and Health Benefits*

The health benefits of clean energy are well understood and documented. Staff's Straw Proposal discussed the very real benefits of improvements to air quality and reduced greenhouse gas emissions from solar energy, but had in the end suggested not including them in the Cost Cap calculation out of consideration for the need to mitigate the total cost of clean energy incentives on the ratepayer. The Solar Act of 2021 explicitly directs the Board to include a calculation of environmental benefits.

Consistent with the Cost Cap Rule Proposal, Staff proposes to determine the environmental savings attributable to the Class I REC Program by analyzing the tons of carbon dioxide (CO<sub>2</sub>) that would have been emitted without the Class I REC Program, and then comparing that to the amount of pollutants that were created with the Class I REC Program. Staff believes that doing this type of comparison of emissions with and without Class I REC Program energy represents the best expression of the statutory intent that the Board identify the “environmental savings” of these programs. Specifically, in implementing the requirements of the Solar Act of 2021, Staff proposes to calculate the greenhouse gas emissions savings attributable to the Class I REC Program by multiplying the tons of greenhouse gas emissions reduced as a result of the Class I REC Program, as measured in tons of CO<sub>2</sub>, by the value of each ton of emissions avoided, as published by the U.S. Environmental Protection Agency (“EPA”).

In determining the reduction in CO<sub>2</sub> emissions, Staff proposes to rely on publicly available calculations of the average carbon intensity of electric generators in the PJM region produced by PJM. In terms of valuing the CO<sub>2</sub> emissions avoided, the Solar Act of 2021 directs the Board to use the EPA Interagency Working Group values for the social cost of CO<sub>2</sub> “at a value no less than the most recently published three percent discount rate scenario of the United States Government Interagency Working Group on Social Cost of Greenhouse Gases.”

### *Cost Cap Implementation and Tracking Methodology*

The implementation of the Cost Cap presents a unique timing challenge, as detailed in the Cost Cap Rule Proposal. The Cost Cap calculation is inherently a backwards looking indicator, because the data needed to definitely calculate the Cost Cap only become available after the end of an Energy Year, once retail sales, SREC prices, TRECs retired, and other data points become known. However, the Board must make decisions about how much to spend on Cost Cap-Applicable Programs (primarily by the MW blocks in the ADI Program and whether to make any



changes to the Class I REC compliance obligations in any given Energy Year) *prior* to the start of that Energy Year.

The Cost Cap Rule Proposal addresses these concerns by requiring Staff to use a combination of forecasting and true-ups to maintain Cost Cap Compliance. As explained in the Rule Proposal, prior to the start of an Energy Year, Staff would develop a forecast of the Cost Cap calculation using best available data. After the end of each Energy Year, the Board would conduct a true-up that compares the forecasted spending and retail sales for the Energy Year with actual data. After conducting the true-up, if the Board finds that funds were spent in excess of the Cost Cap, those funds would be deducted from the amount eligible to be spent in the next Energy Year for which ADI Program targets have not yet been set. This means that the Board could theoretically (and unintentionally) overspend on incentives in a given year as long as overage is mitigated later by a comparable amount of underspending. This will allow the Board to smooth out the inevitable uncertainty in the calculation of the Cost Cap without disrupting New Jersey's clean energy agenda, and ensure that any overage in one year is tracked into the next year, such that total average costs remain below the cap. Importantly, there should be no difference in the total costs of averaging the Cost Cap calculation over a number of years, so long as the Board adheres to the long-term running average. The remedy in any given year for a cost overrun would be to decrease expenditures in subsequent years – this accounting treatment formalizes the process and provides greater transparency to the public.

Separately, Staff notes that amendments to the Clean Energy Act signed by Governor Murphy on January 21, 2020 provide the Board with more flexibility in implementing the Cost Cap, by allowing the Board to carry forward amounts that were not spent in a given energy year, but was eligible to be spent under the cost cap, between Energy Year 2019 through Energy Year 2024. These amounts can be carried over and made available in future energy years, until Energy Year 2024, so long as the total costs to customers for energy years 2019 through 2024 do not exceed the sum of nine percent of the total paid for electricity by all customers in the State in energy years 2019 through 2021 and seven percent of the total paid for electricity by all customers in the State in energy years 2022 through 2024.

### ***Cost Cap Calculations for EY19 – EY22***

Based on the recommendations provided above, Staff has calculated the Cost Cap for EY19 and EY20, and calculated an estimate for EY21 and a forecast for EY22. These calculations are provided in Appendix C to this Order. Based on these calculations, Staff believes that the Cost Cap was not exceeded in EY19, EY20, or EY21, nor is it expected to be exceeded in EY22. The calculations for EY21 and EY22 will be trued-up once actual data is available.

### ***DISCUSSION AND FINDINGS***

Over the past two decades, New Jersey has made a strong commitment to solar, and has seen New Jersey's solar installed capacity grow from less than 1 MW in 2000 to more than 3,655 MW today. In compliance with the Clean Energy Act and subsequent legislation, and in recognition of the Board's own commitment to ensuring both the continued growth of the solar industry and cost-effectiveness of incentives for ratepayers, it is now time to launch the next phase of solar incentives for the State.

The Board has reviewed the extensive record regarding the creation of a long-term replacement to the SREC and TI Programs. The Board commends and thanks all stakeholders for their active participation in this proceeding as public participation is invaluable to the Board's decision-making process, and each contribution made in a public meeting or in written comments has helped inform the Board's conclusions.

The Board **HEREBY ORDERS** the establishment of a SuSI Program, comprised of two sub-programs: the ADI Program and the CSI Program. The Board **ORDERS** that solar incentives, in the form of NJ SREC-IIs, be provided to eligible projects participating in the SuSI Program and that the value of each SREC-II be established as recommended by Staff in the body of this Order.

The Board **HEREBY ORDERS** that the ADI Program be open to net metered residential projects; net metered non-residential projects at or below 5 MW; and all community solar projects. On an interim basis, the ADI Program shall also be open to registrations from projects that qualify as eligible for subsection (t) conditional certification, consistent with the previous SREC and TI Programs, until such time as the Board determines via order to close eligibility, or until the 75 MW block assigned to this interim program is full, whichever occurs first.

The Board **HEREBY ORDERS** that the ADI Program shall only be open to new systems that are connected to the distribution system of a New Jersey EDC or local government unit/municipal electric utility, and that have not commenced commercial operation prior to the opening of the ADI Program, unless otherwise granted special dispensation to enter the ADI Program by the Board. The Board **DIRECTS** the ADI Program registration manager to differentiate and denote the NJ SREC-II Certification Number based on the project's market segment, as defined in the table in Appendix B and based on the project's final size and type. The Board **ASSIGNS** an NJ SREC-II incentive value that is differentiated by market segment, as defined in the table in Appendix B.

The Board **ORDERS** that the Staff undertake a review of the ADI Program implementation and the overall health of the relevant portions of the solar market 12 months after the opening of the ADI Program, which shall include a review of the market segments and incentive levels. Staff may also address whether to recommend further differentiation of incentive levels by EDC at that time and other such matters as Staff may deem relevant for Board consideration. The Board **FURTHER ORDERS** that Staff conduct a full review of the ADI Program every three years after the opening of the ADI Program for the purpose of reviewing incentive levels, market segments, and megawatt blocks. Should the Board take no action in three years, the Board **DIRECTS** that incentives will automatically be reduced by 10 percent, and so forth for each three year period, as recommended by Staff.

Additionally, the Board **ORDERS** that the ADI Program provide additional compensation for solar facilities associated qualifying public entities, which shall be set at \$20/MW-hour above the otherwise applicable SREC-II incentive.

The Board **FURTHER ORDERS** the ADI Program registration manager to accept new registrations for each market segment on a first-come, first-served basis until the MW block for that market segment (as defined in Appendix B) is fully subscribed, i.e., when the last registration received in the registration portal causes the total capacity of all registrations in that block to exceed the capacity allocation for said block.

The Board **FURTHER ORDERS** that co-location of ADI-eligible solar projects, defined as siting two or more SuSI-Eligible solar facilities on the same property or on contiguous properties such

that the individual facilities are eligible for a higher incentive value than they would be if they were combined into one single facility, is not permitted unless granted special dispensation by the Board, and that SuSI-Eligible solar facilities shall be not be deemed co-located if they serve separate net metering customers as set forth at N.J.A.C. 14:8-4, et seq. An ADI-eligible facility that, in its entirety, could be eligible for two or more market segments shall be assigned to the market segment with the lower incentive value. If two or more projects are found to be co-located solar, the Board may take appropriate enforcement action, including, but not limited to, adjusting the incentive downward by multiplying the aggregated project size by the lowest incentive level among the projects' qualifying market segments.

The Board **ORDERS** that projects seeking eligibility in the ADI Program are required to submit a complete ADI Program registration package and receive a notice of conditional registration prior to beginning construction on the facility. The Board **ORDERS** the ADI Program registration manager to review registration packages, and to determine whether the registration package is complete, incomplete, or deficient. Registrations that are deemed incomplete due to a minor deficiency, as defined on the NJCEP website, shall be allowed 7 business days to remediate; registrations that are deemed incomplete, have a major deficiency as defined on the NJCEP website, or that fail to correct minor deficiencies within the time allowed, shall be rejected. If the project meets the eligibility and qualification requirements for an ADI market segment, and the registration package complete or contains minor deficiencies that are cured in the time allowed, the ADI Program registration manager shall issue a notice of conditional registration. The notice of conditional registration shall indicate for which market segment the project is eligible, and set an expiration date for the project's conditional registration based on the ADI Program deadlines as follows: 12 months from the date of issuance of the notice of conditional registration for all net metered projects; 18 months from the date of issuance of the notice of conditional registration for all community solar projects; and 24 months from the date of issuance of the notice of conditional registration for all projects granted conditional approval by the Board as part of the interim subsection (t) market segment.

The Board **ORDERS** that projects proposed on "properly closed sanitary landfills", "brownfields" and "areas of historic fill" as those terms are used in subsection (t) (C.48:3-87(t)) which seek eligibility in the interim ADI Program market segment must submit an application to the Board for conditional approval. The Board **DIRECTS** Staff to work with the NJDEP to develop a dedicated application to enable review by Staff and NJ Department of Environmental Protection. The Board **FURTHER DIRECTS** Staff to cease accepting interim ADI Program subsection (t) applications when the capacity of all accepted applications meets the 75 MW amount of capacity allocated for the interim ADI subsection (t) market segment, or when directed to do so by the Board, whichever occurs first.

The Board **ALLOWS** the ADI Program registration manager discretion to grant projects one six-month extension to their registration expiration date if the extension request is submitted to the ADI Program registration manager on or before the expiration date noted in the notice of conditional registration. The ADI program registration manager shall conduct a case-by-case review of extenuating circumstances presented for the delay in completing the facility, and consider evidence that the facility has made progress towards completion and the likelihood of timely and successful completion of the solar facility.

The Board **ORDERS** that all projects conditionally registered in the ADI Program receive permission to operate from the relevant EDC or municipal electric utility and submit a post-construction certification package prior to the expiration date indicated in the notice of conditional

registration (including any extensions that may have been approved). Projects that fail to comply shall be deemed to be no longer eligible for the ADI Program and the project registration shall be canceled. In the case of a registration cancellation, the registrant shall be permitted to submit a new registration into the ADI Program if capacity remains in the relevant MW capacity block, or if new capacity becomes available at a later time. In the case of a resubmittal where the project has already begun construction, the new registration shall be exempted from the requirement that projects submit a registration package and receive a notice of conditional registration prior to beginning construction on the facility.

After submittal of an initial registration package, the Board **ORDERS** that projects shall be allowed to increase the project's generating capacity by up to 10 percent or 25 kWdc, whichever is less, contingent on notifying the ADI Program registration manager following the instructions provided on the NJCEP website. Projects are not be permitted to increase their generating capacity by more than 10 percent or 25 kWdc nor exceed the ADI Program MW size limit for the given market segment assigned in the project's conditional registration.

The Board **DETERMINES** that projects having received a NJ SREC-II Certification Number shall be eligible to create NJ SREC-IIs for 15 years following the date of commencement of commercial operations (the NJ SREC-II Qualification Life) based on metered generation supplied to GATS, with one MW-hour being the basis for the creation of one NJ SREC-II. NJ SREC-IIs shall be eligible to be created and retired in GATS in the energy year in which the underlying energy was generated and the energy year following the energy year in which the underlying energy was generated. After the end of the NJ SREC-II Qualification Life, projects shall be eligible for a NJ Class I REC.

The Board **HEREBY DIRECTS** Staff and the SRP and TI Program Registration Manager (referred to herein as the ADI Program Registration Manager) to develop all program documents and resources as shall be necessary for the operation of the ADI Program, including, but not limited to: creation of a new registration portal for the ADI Program, updates to the NJCEP website, development of program forms and checklists, and to open the ADI Program registration portal to new registrations at 12:00:00 a.m. on Saturday, August 28, 2021. The Board **FURTHER DIRECTS** Staff and the ADI Program registration manager to take action to communicate the establishment of the SuSI, ADI, and CSI Programs to the public, including via listserv messages, website notices, and informational webinars.

The Board **ORDERS** Staff to conduct further stakeholder proceedings on the design of the CSI Program, and to report back to the Board with options and recommendations for CSI Program implementation.

The Board **HEREBY DIRECTS** the EDCs to work with Staff to jointly procure an SREC-II Administrator, or to expand the scope of the existing TREC Administrator to include SREC-IIs. The Board **ORDERS** the EDCs' SREC-II Administrator to use the GATS system to purchase all SREC-IIs produced each year by eligible projects for both the ADI and CSI Programs. The Board **DIRECTS** the EDCs' SREC-II Administrator to retire and allocate NJ SREC-IIs as a carve-out of the NJ Class I RPS obligation similar to the treatment afforded TRECs.

The Board **HEREBY FINDS** that the EDCs may recover reasonable and prudent costs for SREC-II procurement and SREC-II Administrator fees. Recovery shall be based on each EDC's proportionate share of retail electric sales. Each EDC shall make an annual filing for its costs and the recovery method, which shall be subject to approval by the Board.

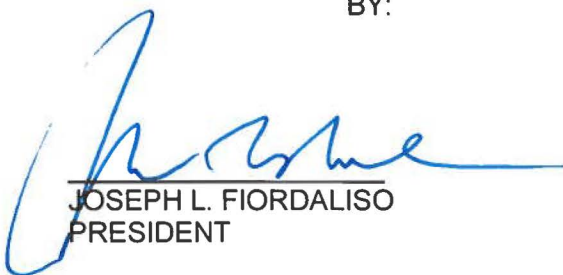
The Board **HEREBY APPROVES** Staff's recommended methodology for calculating the Class I RPS Cost Cap, and **ADOPTS** the Cost Cap calculations provided in Appendix C. Specifically, the Board **FINDS** that the Cost Cap was not exceeded in EY19 or EY20. The Board **ORDERS** Staff to publish revised Cost Cap calculations on an annual basis, and to report back to the Board regarding the status of the implementation of the Cost Cap as appropriate.

Finally, unless stated otherwise in this section, the Board **HEREBY APPROVES** all recommendations made by Staff above, and **HEREBY DENIES** any conflicting stakeholder comments.

The effective date of this Order is July 28, 2021.

DATED: 7/28/2021

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PRESIDENT

  
MARY-ANNA HOLDEN  
COMMISSIONER

  
DIANNE SOLOMON  
COMMISSIONER

  
UPENDRA J. CHIVUKULA  
COMMISSIONER

  
ROBERT M. GORDON  
COMMISSIONER

ATTEST:   
CARMEN D. DIAZ  
ASSISTANT SECRETARY

IN THE MATTER OF A SOLAR SUCCESSOR INCENTIVE PROGRAM PURSUANT TO P.L.  
2018, C.17  
DOCKET NO. QO20020184

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Publication on Clean Energy Program  
Renewable Energy listserv

**APPENDIX A: Comment summaries and responses to comments**

The Board received a total of 102 written comments on the Straw proposal first published on April 7, 2021, and then updated on April 26, 2021, DOCKET NO. QO20020184.

Comments were received from:

**Ratepayer Advocate**

Rate Counsel

**Electrical Distribution Companies**

ACE

JCP&L

PSEG

**Elected Officials / Public or Quasi-Public Entities**

Assemblyman William Spearman

Blairstown Ag Advisory Committee and  
Open Space Committee

Caldwell -- Mayor John Kelley

Deptford Township -- Mayor Paul Medany

Edison Township -- Mayor Lankey

Highland Park Borough -- Mayor Gayle Brill  
Mittler

Knowlton Township Agricultural Advisory  
Committee

Mercer County Improvement Authority

North Jersey District Water Supply

Pennsauken Township

Somerville (Borough of)

Trenton (City of) -- Mayor W. Reed

Guscoria

Warren County Agriculture Development  
Board

Washington Township -- Mayor Matthew T.  
Murello

**Solar Developers / Industry**

AD Energy

ALM Electric Co

Also Energy

Ameresco

BlueWave Solar

CED Greentech

Centrica Business Solutions

CEP Solar (CEP Renewables, via Gary

Cisero)

CEP Renewables

CS Energy

DeVal Solar of Cinnaminson

Ecogy

Ecological Systems

EDF Renewables

Enel North America

EnterSolar

Evergreen Energy Solutions

Eznergy

Fred DeSanti

Gabel Associates

Greenskies

iESS

Independence Solar

Infiniti Energy

Intersect Energy

KDC Solar

Kinsley Landfill

Langan

Lighton Industries

Lightstar Renewables

Mark Bellin

MSSIA

Nano PV

Neighborhood Sun

Nexamp

New Jersey Resources CEV

NJ Solar Power

PosiGen

Power Edison

PowerLutions

QE Energy

Safari Energy

Solar Electric NJ

Solar Landscape

Soltage

Source Power Company

Spectacular Solar

SunConnect

Sunwealth Power

Petra Systems

Tatleaux Solar

True Green Capital

Utilidata

BPU DOCKET NO. QO20020184

Vanguard Energy Partners  
Weston Solution

Vote Solar  
Coalition of environmental groups  
Warren County Agricultural Development  
Board  
Bradley Burke, Warren County Agricultural  
Development Board

**Trade Organizations / Coalitions**

CCSA  
Energy Storage Association  
Joint SEIA – NJSEC  
MAREC - American Clean Power  
New Jersey Energy Coalition  
New Jersey Utility Scale Solar Association  
New Jersey Utilities Association

**Labor / Other Companies**

Riggs Distler & Company  
Engineers Labor Employer Cooperative  
IBEW94  
IBEW296  
Prologis  
Spooky Brook Landscaping  
Vineland Construction

**NGOs / Community Organizations /  
Environmental Groups**

Alliance for Action  
Hackensack Riverkeeper  
Institute of Policy Integrity  
NJCF and NRDC  
NJ Environmental Lobby  
NJ League of Conservation Voters  
NJ Sierra Club  
Princeton University

**General Public**

Jason Menegus  
Jeanne Fox  
Kirk Frost  
Mike Winka

Stakeholder comments are grouped by topic following the outline of this Order, which causes the comments and responses to deviate from the numerical order in the Straw Proposal. Staff has attempted to include many of the relevant comments into the summaries below as a courtesy to commenters. Comments raised in multiple sections are addressed once. Comments not expressly addressed in the Board’s discussion and findings are denied.

***Overall Incentive Program Design***

This topic was covered in question 1 of the Straw Proposal.

*Question 1. Please comment on the benefits and consequences of this suggested division. Does this program design provide a pathway to maximizing solar development while minimizing ratepayer costs and supporting the industry? Please explain and include alternative suggestions if you believe there is a better approach that Staff should consider.*

**Comments:** The Office of Rate Counsel comments that the Straw Proposal relies too heavily on administratively determined prices that will lead to gamesmanship and excessive ratepayer costs. The Board is explicitly directed in the CEA to “utilize competitive processes such as competitive procurement and long-term contracts where possible.” Administratively-set incentives for 60% of capacity targets and a greater percentage of costs is inconsistent with the State’s goals. Without an adjustment in the MW targets, the change in cutoff from 2 MW to 5 MW will lead to competitive solicitations representing a smaller share of the Successor Program.

ACE comments that incentives should be based on a competitive solicitation process. Incentives should not be set any higher than necessary and a periodic competitive solicitation



process should be established for all projects above a certain size with larger developers granted the ability to participate in solicitations.

**Response:** Staff agrees with the commenters that competitive solicitations offer an excellent mechanism to drive incentives to the lowest cost for ratepayers. The Solar Act of 2021 specifically requires the Board to establish both a competitive and an administrative solar incentive program, and Staff sees compelling policy benefits to both net metered and grid supply projects, including the environmental and health benefits of locating solar coincident with customers and the fact that net metered solar projects account for a large part of the solar job base in New Jersey. Further, in the recommended approach, Staff has attempted to balance the financial benefits of a competitive program with the very real concern that participation in competitive bidding would put a very high burden on the owners and developers of smaller projects.

**Comment:** PSE&G supports the overall structure of the Successor Program. PSE&G particularly notes the hiring of a third party to run the annual competitive solicitation and the long-term nature (15 years) of the incentives, all of which should help push down the overall costs of the Successor Program.

AD Energy, Nexamp, Vanguard Energy Partners, CCSA, SEIA and NJSEC, Jeanne Fox, and Tattleaux Solar also support the overall program architecture and the incentive approach.

**Response:** Staff thanks the commenters for their support.

**Comment:** SEIA and NJSEC note that the start of the Successor Program should be aligned with the start of the permanent Community Solar Program.

**Response:** Staff appreciates the comment, but disagrees with the idea that all market segments within the Successor Program must start on the same date or that there is a relationship between the permanent Community Solar Program and the SuSI Program.

**Comment:** CEP Solar expresses a preference for subsection (t) projects to be included in the administratively determined program, reasoning that these are complex projects that require certainty and stability. Similarly, the New Jersey Utility Scale Solar Association opposes any competitive solicitation model for projects located on contaminated lands. They refer to comments of Mark Bellin, Esq., noting that a competitive solicitation will create regulatory uncertainty and make financing and developing these projects near impossible. NJUSSA suspects that the competitive solicitation model is an arbitrary solution to the statutory Cost Cap. In a similar comment, North Jersey District Water Supply recommends that the Board consider a policy to categorically exempt projects involving preferred off-takers or certain desired land uses from competitive solicitations.

**Response:** Staff thanks the commenters for their input, and agrees with the commenters that siting solar on contaminated lands is both desirable and challenging because of issues around building solar on a contaminated site. However, Staff does not agree with the notion that the additional challenges imply that such projects can never participate in a competitive process. Instead, Staff's review of confidential project data suggests that competition could significantly lower the incentives necessary for the development of contaminated sites, and thus allow for incentives to be provided to more total solar capacity. Staff does not believe that the implementation of a competitive process with clear rules and regulations will create regulatory

uncertainty, nor that it is in any way arbitrary. Staff's recommendation for the competitive structure is not a result of the statutory cost cap, but rather of the Board's longstanding commitment to ratepayer affordability and to reducing incentives in line with cost reductions in solar development. The Order thus recommends that projects on contaminated lands participate in the CSI Program. However, Staff recognizes that the model for competitive solicitation needs to be developed carefully and with additional stakeholder involvement. As noted in the portion of the Order addressing the CSI Program, Staff anticipates having extensive stakeholder discussions about how to design the competitive program in a manner that works for all participants. Staff therefore encourages stakeholders to participate in future proceedings on this issue in order to discuss how best to structure the solicitation for complex projects such as the ones described by the commenters. Further, in order to facilitate a smooth transition for developers of contaminated lands projects, Staff is proposing an interim incentive under the ADI Program for solar projects qualifying under subsection (t) of the Solar Act of 2012.

**Comment:** Nano PV comments that there is no existing plan to grow the solar manufacturing sector within the State and that the Board should include such a plan and establish a solar manufacturing industry in the State. The commenter claims that the overall costs of solar projects will decrease dramatically if there is a robust manufacturing industry in New Jersey. Nano PV comments that there should be an additional incentive provided for solar manufacturing, since it would have the potential to boost NJ's economy by starting a solar manufacturing industry in-state and hold the potential to create 1.2 million jobs in that sector. These incentive values could be set in two ways: (1) based on the capacity of solar panels manufactured in state - proposed to be \$.05/W; or (2) based on the units of electricity generated, where the developer or end user could receive additional credit for using NJ manufactured panels - proposed at a value of \$.02/kWh.

**Response:** Staff appreciates the comment, but believes that measures to promote solar manufacturing in NJ are outside the scope of this particular proceeding.

### ***Eligibility and Segmentation of Small Net Metered and All Community Solar Projects***

This topic was covered in question 2 of the Straw Proposal.

*Question 2. Please comment on the proposed breakdown of market segments in the administratively set program (e.g., net metered residential, net metered non-residential rooftop and canopy, net metered non-residential ground mount, community solar, and LMI community solar). Would you suggest any changes, and if so, why?*

**Comment:** Rate Counsel objects to the proposed segmentation, noting that it has historically opposed high degrees of segmentation for a variety of reasons. The commenter argues that the number of segments proposed in the Straw risks over-incentivizing specific segments and urges the Board to interpret over-subscription of a given segment as a signal that incentives should be reduced.

**Response:** Staff shares some of the commenter's concerns, including the potential for over-segmentation to result in prices that are too high for some market segments, and too low for others. Staff agrees that over- or under-subscription in a segment will be an important data point for the Board to carefully examine in its one-year market check-up. Staff notes that its recommendation to create a single MW block for all non-residential net metered projects may

help to alleviate adverse market effects from the use of segmented incentive levels.

However, on balance, Staff sees a distinct benefit in providing different incentives to types of solar installations that meet various policy goals, including promoting solar on the already-built environment; providing greater incentives to community solar projects serving low- and moderate-income customers; and incentivizing solar installations on contaminated lands, among others. Further, Staff notes that the cost modeling performed by Staff and its consultant shows that there is a variability of solar costs across sectors and project sizes, which suggests that differentiation should result in savings to New Jersey consumers versus a single incentive level.

**Comments:** The NJ Utility Scale Solar Association, SEIA and NJSEC recommend that all projects on contaminated lands receive an administratively set incentive. Alternatively, if such projects are required to participate in the CSI Program, NJ Utility Scale Solar Association recommends that the bid should be for the “adders” or additional incentives applicable to a given project, subject to a mandatory floor value. This would allow each project to proceed if it can proceed with the floor incentive. The projects would then “bid” for the “adders” or additional incentives necessary in light of the increased or extraordinary costs applicable to a given project.

**Response:** Staff thanks the commenters for their input. Staff disagrees with the comments suggesting that SuSI Program projects on contaminated lands should be exempted from having to compete on price and sees strong evidence that there may be significant savings to ratepayers by having projects on contaminated lands compete against other such projects on contaminated lands. Competition is compatible with a healthy solar market. However, Staff agrees with commenters that projects on contaminated lands should compete against other similarly situated projects and has recommended creating a separate market segment for contaminated lands in the CSI Program. As noted in the body of the Order, many of the specific issues around the design of the CSI Program will be addressed as part of future stakeholder proceedings and Staff will address these comments in that portion of the proceeding.

Additionally, the recommendation by some commenters that the CSI Program accept all projects willing to accept a floor price appears at odds with the requirement that the Board set MW targets for each market segment and the cost discipline that megawatt targets allows. Further, setting an artificial price floor would appear to discriminate against projects that would be willing to accept a lower incentive value, and deprive New Jersey customers of the price and other benefits that competition encourages. Further discussion of this topic will be possible as part of the forthcoming CSI Program proceeding.

**Comment:** Centrica Business Solutions supports segmentation on the basis that a single incentive value cannot account for the difference in cost inherent to different project types, such as the utility avoided cost and siting. Alluding to the State’s policy preferences, the commenter states that rooftops and carports are less invasive than ground mounts and should receive a higher incentive value. Likewise, Centrica states that since residential customers have a much higher utility avoided rate, they experience greater savings than commercial customers and thus should receive a lower incentive.

**Response:** Staff agrees with Centrica and other similar comments that all else being equal, the

ADI Program incentives should show a preference for rooftop, carports, and other projects on the built environment over ground mount systems, and the recommended incentive values in this Order reflect that policy preference. However, Staff expects that building-mounted and ground-mounted segments will both be necessary to meet long-term solar targets, and thus seeks to maintain both healthy rooftop and ground mounted net metered market segments. Staff points out that incentive levels for each segment have been based on the data and modeling for that specific segment, including the appropriate retail rate credit for that customer class. The Successor Program modeling includes both residential and non-residential use-cases, and was thoroughly vetted with stakeholders prior to publication in the Capstone Report.

**Comment:** ACE recommends that the number of distinct market segments be minimized to help simplify the program, increase likelihood that lower cost systems are installed, and thereby reduce the overall program costs.

Additionally, Sunwealth proposes that all net metered non-residential projects >1 MW should participate in the competitive solicitation to maximize benefits for a diversity of ratepayers.

**Response:** Staff agrees that minimizing the number of market segments has advantages. In designing recommendations for the ADI Program, Staff has attempted to strike a balance between the advantages of fewer segments with the need to adequately account for cost variance between market sectors and between different sized projects. Further, Staff has merged several of the smaller MW blocks, particularly for non-residential net metered projects. While the compensation paid to projects within this larger block may vary based on price and type, the implementation of the MW block as a single block should address some of commenter's concerns.

**Comment:** Nexamp supports the general concept of market segments, but suggests that segments should be differentiated by siting criteria because it believes that there is a significant differential in cost among community solar projects located on rooftops, landfills, or on carports which must be accounted for if those projects are to move forward. Alternatively, the commenter suggests using adders for siting criteria to meet the same goals.

**Response:** Staff understands that differences in siting can be major drivers of solar system cost. However, Staff notes the complexity associated with creating sub-segments and that doing so within each mount category for each siting configuration, as suggested by the commenter, would make the program administratively cumbersome. Further, Staff notes its preference for cost-effective projects within each market segment. By modeling incentive levels around the 50<sup>th</sup> percentile of previously reported project costs, Staff seeks to promote price discipline that will allow for more solar to be installed in New Jersey at a lower cost to New Jersey consumers. Further subdividing each segment would tend to counteract the Board's goal of establishing the lowest overall incentive levels necessary to maintain a healthy solar industry.

**Comment:** SEIA and NJSEC recommend that the proposed Dual-Use pilot program be placed under the ADI Program rather than the competitive solicitation program.

**Response:** The July 2021 Dual-Use Act specifies that the Board shall establish a separate pilot

program specifically for dual-use facilities. Issues specific to dual-use projects will be addressed in a separate proceeding in the near future.

**Comments:** Tattleaux Solar recommends increasing the maximum size of non-residential net metered projects offered incentives under the administratively-determined incentive program to 4 MW.

Centrica Business Solutions states that the 2 MW bifurcation should not be used and that all net metered projects of 5 MW and below should instead be part of the administratively set program.

EDF Renewables, Greenskies, and the North Jersey District Water Supply express the preference for all net metered projects to be eligible for an administratively determined REC, regardless of size, and propose that if there must be a cap then it should be set at 5 MW in alternating current (ac).

NJ Sierra Club writes that the project cap for the administratively determined incentive part of the SuSI Program should be increased to at least 10 MW and perhaps up to 20 MW because the commenter believes that this will allow more solar to be put onto the grid.

**Response:** This point, in addition to being included in many written comments, has been raised numerous times in the stakeholder meetings. In these meetings, Staff felt that stakeholders made a compelling argument that the initial proposed cap on eligibility for the ADI Program of 2 MW was too low, and Staff has increased its recommendation to 5 MW.

Staff disagrees that establishing administrative incentives for projects up to 10 or 20 MW would result in more total solar being added to the grid. Instead, Staff believes that large net metered projects should be part of the competitive solicitation process. Large net metered projects, such as those discussed by commenter, enjoy economies of scale vis-à-vis smaller projects, and should be encouraged to enter into the competitive solicitation. This will allow more total solar to come onto the grid at a lower overall price to consumers.

Finally, Staff have found the use of direct current as the historic metric for measuring capacity in the State's solar programs as the most administratively simple and have been offered no compelling reason for change.

**Comment:** Ecogy urges the Board to retain the 2 MW break between ADI Program projects and CSI-eligible projects. The commenter is particularly worried about the low allocation for the commercial and industrial project market segment of only 110 MW. If the project size cutoff is increased to 5 MW, the commenter believes one project at the limit would take up much of the total available capacity compared to many smaller 2 MW projects.

**Response:** Staff appreciates the comment. Staff notes that the MW block targets were established based on the Board's past experience with SREC and TI Programs, and represents a reasonable estimate of the megawatts of projects that are likely to register in the ADI Program for each size. Further, Staff notes that the MW block for the net metered non-residential market segment has been increased to 150 MW, which may help address the commenter's concern. Staff anticipates that the one-year check-up will holistically examine these types of market segment issues.

**Comment:** Princeton University supports raising the maximum limit for participation in the ADI

Program to 5 MW.<sup>40</sup>

**Response:** Staff agrees with the commenter and has recommended increasing the threshold between the ADI and CSI Programs to 5 MW.

**Comment:** Solar Electric NJ comments that the 3' setback requirement for rooftop arrays is unduly restrictive and jeopardizes the viability and incentive level of smaller projects.

**Response:** Staff notes that the 3' setback stems from the International Fire Code and is outside the scope of this proceeding.

### ***Incentive Levels and Qualifying Period***

This topic was covered in questions 3, 4, and 9 of the Straw Proposal.

*Question 4. The Straw proposes that selected projects would receive a 15-year qualifying life, consistent with the TI Program. Staff seeks comments on whether this is the appropriate term due to the nature of heavily discounting outer-year incentives, as well for consistency with the proposed competitive solicitation program. Please comment on this proposal and explain any alternative suggestions.*

**Comments:** Rate Counsel, Ameresco, Nexamp, Solar Electric NJ, CCSA, and the joint comments of SEIA and NJSEC support the proposed 15-year incentive qualification life.

**Response:** Staff thanks the commenters for their support.

**Comment:** ACE comments that a 15-year period is too long and the qualifying life period should only be a few years since longer incentive periods carry greater likelihood of miscalculation.

**Response:** Staff appreciates the comment, but notes that shorter incentive periods would necessarily lead to higher incentive levels, which could make the SuSI Program much more expensive in the early years. Further, the TI Program, which uses a 15-year Qualification Life, appears to have attracted extensive investment of private at-risk capital, which is a critical marker of success. Based on this track record, Staff is comfortable recommending a comparable Qualification Life of 15 years for the ADI Program projects.

**Comment:** Centrica Business Solutions supports the 15-year term but recommends considering a fixed price REC for years 16-20 for community solar projects, "even if the price drops to something akin to the PJM Class I REC pricing, perhaps \$15/MW-hour for years 16-20."

Tattleaux Solar similarly recommends a lower incentive for years 16-20, with the argument that it would avoid re-purposing solar projects (i.e., re-deploying existing panels elsewhere).

**Response:** Staff disagrees that a longer qualification life is necessary, given the strong market response to the 15-year incentive term in the TI Program. Further, extending the incentive past

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<sup>40</sup> Staff raised the threshold to 5 MW during the stakeholder process.

15 years at a different level, as suggested by commenter, would increase the cost of the ADI Program and would significantly increase the complexity of the incentive structure and implementation. Staff views the simplicity of the existing TI Program as a significant benefit to customers trying to understand whether investing in solar makes sense for them. Additionally, Staff has seen strong evidence that cash flows in the later years are often significantly discounted during an economic analysis of proposed solar investments. Longer incentive terms would likewise be heavily discounted by many investors, and Staff therefore questions the benefits to projects of providing a lower-value incentive in the later years of a project's life. Finally, Staff certainly agrees that re-purposing may happen, but questions the percentage of solar projects that are affected and commits to monitoring any repurposing trends in the future.

**Comments:** EDF Renewables comments that a 15-year qualification life is workable, but asserts that extending it to 20 years would enable projects to lower project financing costs while also reducing the annual impact to ratepayer costs.

Similarly, NJRCEV prefers long-term incentives with a 25 to 30 year life, but does not object to the 15-year term.

Sierra Club NJ would prefer a 20-year incentive.

**Response:** Staff appreciates the comments, but notes that heavy discounts are generally applied to incentives in the later years, which causes incentive levels lose their value in terms of the initial investment.

**Comment:** The NJ Utility Scale Solar Association supports the 15-year term, but only when incentives are set at the levels it recommends. At lower incentive levels, it recommends extending the incentive life to 20 or 30 years, in line with typical lease lengths.

**Response:** Staff recognizes that incentive levels and qualifying life must always be considered in tandem. A 15-year term strikes an appropriate balance between the arguments for shorter and longer terms, and as noted above, avoids the heavy discounting that can occur with longer-term incentives.

*Question 3. As currently proposed, all net metered projects in the administratively set program would qualify for an incentive of \$85/MW-hour for the first three-year period (EY 2022-2024); community solar projects would qualify for an incentive of \$70/MW-hour, and community solar LMI projects would receive an incentive of \$90/MW-hour. Please comment on these proposed incentive levels and if you disagree, please reference specific concerns with the modeling or historic performance assumptions used to develop the proposed levels.*

**Comment:** Rate Counsel expresses strong concern that over-representation of solar developers in stakeholder proceedings will lead to inflation of incentive levels. Rate Counsel cites the stakeholder process preceding the TI Program, where the eventual administratively determined incentive values came out 20% higher than the original proposals. However, despite its opposition to the scale and scope of the proposed administrative programs, Rate Counsel does believe that the proposed incentive levels appear reasonable based on the analysis that Staff has made publicly available and states that the incentives should remain at the proposed levels.

**Response:** Staff recognizes the asymmetry in representation of ratepayers interests compared to the industry, however, Staff believes the Board has an independent obligation to address affordability issues, and therefore takes Rate Counsel's concerns about incentive level increases seriously. Nevertheless, Staff disagrees with the characterization of previous stakeholder processes as yielding to industry pressure. Staff notes that in this Order, incentive level recommendations remain largely based on Capstone modeling, with consideration for viable arguments offered by all stakeholders, as well as policy considerations explicitly discussed the body of this Order.

**Comment:** ACE comments that administratively established incentives are less efficient than market-based incentives and will inevitably be either too high or too low. The Board should establish periodic incentives based on a competitive solicitation process for each established solar segment. Administratively-set incentives should only apply to small projects to avoid unfair incentives.

**Response:** Staff agrees with the sentiment expressed in the comment and has proposed to cap the size for participation in the ADI program, but notes that for small projects, there would be a very significant administrative burden associated with participation in a competitive program. Further, the Solar Act of 2021 clearly requires the Board to establish both administrative and competitive program components, as established in the body of this Order.

**Comment:** MSSIA comments that incentives for larger projects should generally be set at a lower rate, which would cover projects from 2 MW to 5 MW.

**Response:** Staff generally agrees with the commenter, and recommends separate incentives for smaller and larger projects within the ADI Program.

**Comment:** North Jersey District Water Supply notes that for public entities the "power purchase agreement" model often is the only option, because many entities do not have the upfront capital to purchase and develop these projects outright.

**Response:** As discussed in the Order, Staff is recommending the creation of an adder for public entities, such as North Jersey District Water Supply, of \$20/MW-hour above the otherwise applicable incentive level. Staff has data to support the assertion that public entities heavily rely on third-party owned models to implement solar, and does not see the same shift towards direct ownership that is seen in the other market segments. Furthermore, Staff recognizes that the benefits of solar for public entities flow to the entire community served. Staff is now recommending an adder, specifically for public entities in the ADI Program, which will largely account for the difference in cost structure between direct-owned and third-party owned models.

**Comments:** Gabel Associates states that the proposed incentive levels are inconsistent with the Cadmus Capstone Report and do not provide the support necessary for the State to meet its solar goals. The Board's calculations ignore the higher incentives calculated for third-party owned projects and has the effect of eliminating development of those projects. Gabel Associates states that third-party owned projects should be differentiated from direct-owned projects, and that the following incentive levels are appropriate based on the Cadmus Capstone Report: Comm\_TPO\_Carport: \$170; Comm\_TPO\_Ground\_Ig: \$95; Comm\_TPO\_Ground\_med: \$135; Comm\_TPO\_Roof\_Ig: \$100; Comm\_TPO\_Roof\_med: \$130; Comm\_TPO\_Roof\_sm \$150.



Greenskies similarly notes that New Jersey should support third-party owned projects and believe this type of solar ownership promotes the market and aids job growth.

Vanguard, SEIA, and NJSEC state that the proposed incentive levels are too low. CS Energy comments that they generally echo the comments by NJSEC.

**Response:** Staff appreciates the comments and notes that it now recommends that the Board use as an initial baseline a blended average of the host owned and third-party owned modeled incentive values. This approach is comparable to the approach used in the TI Program, which has elicited a strong positive industry response. This SuSI Program Order expressly recognizes that roughly half of the solar facilities in the State are third-party owned, with a trend towards increasing direct ownership of projects. Modeling suggests, and stakeholder input has confirmed, that a third-party owned project typically requires a higher incentive than an otherwise identical direct-owned project. Therefore, while relatively inefficient or more costly third-party owned projects may not find the proposed incentives sufficient, lower-cost third-party owned projects will remain feasible. The other options would have been to either over-incentivize direct-owned projects or to create separate incentive levels for third-party owned and direct-owned projects, which the Board expressly rejected in the context of the TI Program. None of the comments here have convinced Staff that the added complexity of establishing separate incentives for different business models is warranted, nor have they resolved the high level of difficulty in preventing developers from financially engineering ownership models to maximize incentives.

As noted in the section of the Order entitled “Staff Recommendations for Successor Solar Incentive Program Design”, Staff believes that Public Entities are a special case where direct ownership is often not feasible. For this reason, Staff recommends incentive levels for Public Entities that are closer to the values modeled for third-party ownership. The public entity adder is premised on the idea that public entities generally cannot access federal tax equity, and thus rely on third-party ownership models. The public entity adder applies to most market segments, except that community solar projects are not eligible for the public entity adder because these types of projects already mirror a third-party ownership financial arrangement, and have been modeled accordingly. Additionally, there is no public entity adder for residential net metered projects.

Staff rejects the assertion that it “ignored” various pieces of the Capstone Report, or that its recommended incentive levels are inconsistent with a vibrant solar industry. Staff considered the third-party owned modeling performed by Cadmus as *one factor* in a multi-factor analysis that included different business models and project types. Staff repeatedly stated throughout the process that using the third-party owned incentive level exclusively would result in a gross over-incentivization, since it would set incentives at the highest modeled level. Likewise, Staff believes that it was clear throughout the administrative process that its preference was to set incentives at the *lower* of the direct-owned or third-party owned incentive levels, but was convinced to do more of a blended average by commenters. Further, the incentive levels recommended by certain commenters would significantly increase the cost of the SuSI Program, and, in some cases, would result in incentive levels in excess of those offered under the TI Program. Given the strong response to the TI Program, Staff sees no evidence to suggest that incentive levels should be raised even higher, particularly given the Board’s direction that solar incentive levels should fall over time.

**Comment:** Ecology comments that they believe the Successor Program will not be equitable without different incentive levels based on project size and type. Projects over 1 MW benefit from economies of scale while smaller projects require more funding to properly benefit. Ecology cites Rhode Island as an example for a good framework for incentive levels.

**Response:** Staff agrees that larger projects have a different cost structure, and has proposed differentiated incentive values for the ADI Program.

**Comment:** The Mercer County Improvement Authority comments that the Straw Proposal will significantly limit their ability to pursue solar projects in general, and that they will be unable to capture significant savings for solar development which leaves them unable to fund those projects because incentives are too low in the Successor Program. They claim that solar projects need to see a 30-35% savings to meet their goals.

**Response:** Staff appreciates the difficulties specific to public entities in pursuing solar, and has proposed an adder that will bring the value of the incentive closer to what was modeled for third-party ownership projects. However, Staff disagrees that 30-35% savings are necessary for a healthy solar industry. As the Board's consultant found in surveying the developer community, a planned savings of 15% is typically sufficient to drive interest in solar. The TI Program incentives, for example, targeted a similar level of savings comparable to the savings in the ADI Program, and has seen a strong market response.

**Comments:** A number of commenters request that the Board establish separate incentives for canopies and carports. Gabel Associates recommends that incentive levels be differentiated by project type, with rooftop and canopy unbundled into separate segments at the values calculated by Cadmus.

The Mercer County Improvement Authority further states that "[t]he Straw Proposal does not properly encourage and reward the development of solar canopies. The NJBPU has made clear that land use is a serious consideration when it comes to solar development in New Jersey. Solar canopies are suspended over a parking lot, and as such, they offer a more efficient use of space than ground installations. The incentive value of \$85 is simply not reasonable or sufficient to incent solar development, especially in conjunction with the 15% savings assumption."

Similarly, EnterSolar asserts that carports should receive their own higher incentive level of \$110.5/MW-hour. They believe that carports offer the benefit of more easily integrating with the increasing numbers of EVs and would only require a minimum capacity, 15 MW, to be devoted to this market segment.

Centrica Business Solutions recommends a rooftop and carport incentive of \$125/MW-hour and a ground mount incentive of \$95/MW-hour.

EES states that the Straw Proposal would totally decimate the carport solar segment of the industry, and asserts that projects totaling approximately 10 MW of solar carports were put on hold upon release of the Straw Proposal. EES states that such low proposed REC values cannot support loan payments for carport systems, making them unfinanceable. The commenter states that carport structures add approximately \$0.85-\$1.00/per installed DC watt to a project, making the cost to build approximately 50% more expensive than a rooftop system. EES strongly recommends a much higher REC payment for carport systems, up to \$175/MW-

hour.

Independence Solar also recommends a carport incentive of \$150/MW-hour, citing visibility, diversification, and uniquely appropriate to integrate with EVs as desirable attributes of carports.

Sunwealth proposes an incentive value of \$145/MW-hour for net metered non-residential canopies under 2 MW to maximize development on the built environment.

**Response:** Staff is highly supportive of solar carports and canopies, for many of the reasons expressed by commenters, primarily regarding the siting of solar on the built environment. However, Staff disagrees with commenters' suggestion that carports and canopies should be provided a unique incentive level. As explained in the body of the Order, while these projects provide certain benefits, they are typically more costly to build, and Staff does not see compelling reasons to incent carport solar significantly higher than rooftop solar. Staff notes that carports are a preferred location for solar siting since they utilize the already built environment and thus are proposed to receive a higher incentive level than ground mounted facilities. An even higher incentive level would undermine the Board's commitment to customer affordability and decrease the total amount of solar that can be incentivized with a given dollar of ratepayer support. Effectively, advocates for carports and canopies are asking ratepayers to fund both the construction of the underlying structure as well as the solar panels, which logically will cost significantly more than simply installing solar on existing structures.

Further, several of the specific incentive levels recommended for carports and canopies by certain commenters would result in incentive levels in excess of those offered under the TI Program. This would significantly increase the costs of the SuSI Program and violate a core tenant of the Board's solar reform efforts: that incentive levels should decrease over time. Moreover, the Board has seen a strong response to the TI Program, including in the carport and canopy sector. Staff sees no evidence to suggest that incentive levels should be raised even higher.

**Comments:** A number of commenters advocate for higher incentive levels for residential net metered systems. AD Energy comments that incentive levels need to be increased somewhat across all segments. They further recommend that incentive budgets per segment should be increased commensurately, arguing that the pandemic and transition to the TI Program have slowed the solar market's progress and that the market needs time to recover. AD Energy recommends a REC value of \$95 to reach 150 MW of residential solar.

Similarly, Ecological Systems recommends a minimum of a \$100/MW-hour SRECs for residential solar projects for 15 years to support the residential market segment.

Solar Electric NJ states that the proposed residential \$85/MW-hour incentive is too low, and the current \$91.20 TREC is close to what makes the investment "pencil out" for homeowners. The commenter suggests that the new value be set closer to \$98-100/MW-hour. They further claim that the \$85/MW-hour value does not work when a homeowner or farmer wants or needs to install a ground mounted system because of additional cost to install the piers, racking system, trenching, conduit, and long wire run.

NJ Solar Power recommends the following incentive levels: residential at \$95; small commercial at \$125/MW-hour and the creation of a small commercial segment of 500 kW and lower.

**Response:** Staff understands that the residential segment has seen one of the largest decreases in incentive levels in the transition from the SRP to the TI. Recognizing that the market has taken time to adjust to the State's incentive program changes, and that the pandemic has put additional strain on development, Staff sees some evidence of market recovery, and recommends that the incentive level remains essentially unchanged from the TI Program. Staff is also recommending that the Board review the state of the industry, including incentive levels, after one year. Staff disagrees with suggestions that would increase incentive levels over those established in the TI Program.

Staff is aware of the difference in cost structure between smaller and larger installations and has included differentiated incentive levels in its proposal, with higher incentives for commercial rooftop projects than originally proposed in the Straw.

**Comment:** A number of commenters advocate for higher incentive levels for community solar installations. Nexamp claims that the current proposed levels for community solar are not sufficient to support the type of program envisioned by the Board. The proposed levels are a 30-45% reduction relative to the TREC values, which they claim has not been adequately explained by Board policy or modeling. The commenter asserts that the proposed incentive levels are insufficient to deploy projects sited on landfills, carports, or other challenging sites, and that the increased costs associated LMI project management and preferred siting are prohibitive. Nexamp suggests that the incentives should align better with policy goals of increasing solar production.

Centrica Business Solutions states that the community solar incentives of \$70/MW-hour and \$90/MW-hour for LMI projects should be increased to \$85/MW-hour and \$95/MW-hour respectively, since community solar is a high priority for New Jersey and is a great way to ensure participation in solar, particularly for previously underserved demographics. The low bill credit rates specifically for commercial offtakers can make community solar projects difficult to finance.

Ecogy comments that the incentives in the Straw Proposal do not address significant costs associated with community solar like high acquisition costs, churn rate, and adequate lease payments to the system host. Smaller projects are often the most equitable and effective route to serving local organizations and businesses.

SunConnect states that the proposed incentive levels for LMI community solar and non-LMI community solar will not offset the additional costs of these projects, such as initial subscriber acquisition fees and management of offtakers. The community solar incentive should reflect the added costs for rooftop projects compared to ground-mount projects.

Sunwealth also comments that the incentive value for community solar should be higher, proposing \$115/MW-hour for non-LMI and \$145/MW-hour for LMI community solar. The commenter believes these incentive levels would provide adequate compensation for subscriber acquisition and management partners and offer additional savings for LMI participants.

CCSA likewise expresses its concern that the proposed incentive rates change too abruptly for projects in Year 3 of the Community Solar Energy Pilot Program and do not reflect market realities or current costs of doing business. CCSA states that the proposed incentive values for community solar in the Straw Proposal represent a dramatic decrease from the TREC values, with proposed incentive values representing a 45% drop for non-LMI projects and a 30%

decrease for LMI projects, which would cause instability in the market. CCSA recommends that incentive values should start closer to the current value to avoid abrupt cost hikes and disruptions in consumer expectations and project viability and that, absent any change, the current incentive plan will not be enough to achieve a permanent community solar program located on a diverse set of preferred sites.

**Response:** Staff appreciates the comments, and shares the commenters' support for community solar. The Community Solar Energy Pilot Program has seen an overwhelming response, which Staff attributes at least in part to the incentive levels established in the TI Program. Setting incentive levels is a complicated process in which modeling results, stakeholder input, policy goals, and other matters must be considered and weighed against each other. One key driver in this proceeding has been the attempt to support high levels of solar installation with the lowest possible burden on the ratepayer. Staff believes that it is appropriate to aim for this goal and notes that the Board will revisit these incentive levels in one year, at which time the commenters' concerns can be addressed if experience with the new program bears them out.

While incentive levels have decreased from the TI Program levels for community solar, those changes are fully consistent with the modeling performed by Staff and Staff's consultant. If there is an unacceptable drop off in this market segment, the Board has the flexibility to change incentive levels during the one-year check-up process. Further, Staff sees benefits in directing all solar investment, including community solar investment, onto lower cost locations. Finally, Staff asserts that maximizing solar production requires that solar incentives decrease over time, and disagrees with Nexamp that because a particular high-cost solar installation does not pencil out, that incentives should increase.

**Comment:** Greenskies states that the levels of incentives suggested in the Straw Proposal will not support its public entity projects and suggests its own incentive levels:

- Non-residential, net metered projects base incentive: less than 1MW: \$94/MW-hour,
- Greater than 1 MW to 5 MW: \$86/MW-hour,
- LMI Community Solar Incentive: \$103/MW-hour,
- Brownfield adder: \$22/MW-hour,
- Carport adder: \$46/MW-hour,
- Third-party ownership adder: \$12/MW-hour,
- Public entity, non-profit adder (includes the TPO adder): \$28/MW-hour

**Response:** Staff appreciates the commenter's effort to offer specific incentive values for inclusion into the discussion, and notes that Staff's final recommendations are quite close to what the commenter proposes, particularly when including the \$20/MW-hour public entity adder recommended by Staff. The exceptions are the commenter's suggested TPO and carport adders, which Staff sees no compelling policy argument to support, as discussed elsewhere.

**Comment:** Intersect Energy comments that a reduction in support for the current and future SREC program will deplete the benefits of power purchase agreements and deprive the state of future renewable energy generation. Intersect Energy asserts that the proposed new incentive values will drive PPA prices above local utility and third-party rates for public entities when modeled at the lowest IRR accepted by investors.

**Response:** Staff recognizes the importance of the third-party ownership model for public

entities, and is recommending a public entity adder for this reason. Otherwise, Staff notes that the reduced solar incentives are designed to maximize solar production at the lowest cost to consumers, and that reduced incentives are critical to promoting increased competition and reduction of costs.

**Comment:** MSSIA states its belief that higher incentives, with differentiation, should be set for net metered and community solar projects than those proposed in the Straw, citing its belief that the rates proposed in the Straw would lead to job loss and diminished solar development. MSSIA conducted its own modeling for incentives and challenges assumptions made in the Capstone Report with regard to expectations of solar panel performance and weather, among other things. MSSIA cites the TI Program experience as an experiment that indicates how the market and the industry respond to incentives. Claiming that \$85/MW-hour incentives will not drive the market, MSSIA says that the \$91.20/MW-hour TREC did not incent the market for ground mounted solar, roof mounted, or carport solar installations. MSSIA attributes the 2020 downturn in residential solar to the TI incentive value. As an alternative, MSSIA proposes a \$95/MW-hour rate for residential solar and \$110/MW-hour for Commercial and “Public Entities,” with community solar at \$100/MW-hour. MSSIA further proposes that floating solar, dual use and brownfield and landfills participate at a rate to be determined, with a higher payment due to their higher costs.

EDF Renewables states that \$85/MW-hour is too low to attract investment and would greatly shrink the number of projects being built in NJ causing significant job losses. EDF Renewables supports numbers proposed by MSSIA modeling. A similar sentiment was expressed by Eznergy and by Infinity Energy.

Evergreen Energy Solutions comments that the proposed incentive of \$85/MW-hour for rooftop projects appears close, but not sufficient, to where it should be to support project economics. The commenter feels that incentives should be around \$100-110/MW-hour.

**Response:** Staff appreciates the quantitative analysis performed by the commenters, particularly MSSIA, and notes that Staff’s final recommended incentive levels are quite close to the commenters’ calculations. Staff does not agree that the downturn in residential solar was solely due to the reduction in incentive levels from the SREC to the TI Programs, given that this has been a multi-year industry trend, and that it coincided in part with the onset of the pandemic, although Staff does recognize the sharpness of the decrease and the period of time that was needed for the market to adjust. Residential registrations under the TI program show evidence of a market rebound, and the total installations over 2021 (calendar year, normally used for reporting) are expected to be in line with those from 2016-2018; Staff notes that the installation rates in 2019 was unusually high due to changes in the federal tax investment tax credit. While Staff recognizes that ground mount facilities were challenged at the TI Program incentive levels, it also notes that the Board has expressed a general policy preference for projects taking advantage of the built environment. Staff further notes that floating solar projects are provided preferred siting status, and therefore qualify for a premium incentive level. Issues around projects on contaminated lands are addressed elsewhere.

Additionally, as MSSIA notes, Staff agrees that solar production levels vary over the course of a year due to changes in weather. However, Staff continues to believe that the best representation of average solar production levels is to take an average production level over several years.

**Comment:** New Jersey Resources Clean Energy Ventures (“NJRCEV”) recommends differentiating between direct-owned “DO” and third-party owned “TPO” projects, or setting incentive levels at TPO modeling (on average 20% reduction from TREC levels). NJRCEV states: “The \$70 to \$85/MW-hour proposed by Staff is too low to support investment in net metered commercial and industrial projects. The incentives proposed in the Staff Straw Proposal reflect decreases of 40 to 60 percent versus those realized in the TREC market. Since its establishment only 12 months ago, no substantial changes in the market have occurred that would justify these dramatic decreases. Even increasing the ITC, per the Cadmus analysis, only equates to \$5 to \$10/MW-hour for most project types. NJCEV claims that TPO projects have traditionally represented about 60% of market share, and these will not be able to secure financing at the proposed incentive levels. The loss of the TPO segment will preclude solar participation for public entities -- including schools and municipalities -- that must rely on third-party owners for capital and tax capacity, as well as private entities who want solar but have alternative needs for capital.” NJRCEV expects to see a significant decline in the commercial market segment in EY21, in contrast with robust solar growth nationwide (quoting from SEIA 2020 Solar Market Insight Report). NJRCEV further cites the importance of this market segment, comprising two thirds of the NJ solar market.

**Response:** Staff appreciates the commenter’s concern, but disagrees with their interpretation of the data. According to publicly available data, 46% of solar installations at commercial entities, other than public entities, made use of the third-party owned model under the TI Program, and this share is falling. However, as stated previously, given the significance of this market segment, Staff now recommends incentive levels based on a blended average of modeling results for direct owned and third-party owned projects. Additionally, Staff recognizes the importance of the third-party owned model for public entities, and for this reason is proposing an adder specific to this market segment. Staff is aware of the decline in the market for the previous energy year, but sees a record number of registrations in the TI Program as evidence of a robust rebound of the commercial segment in the wake of the pandemic.

**Comment:** SunConnect comments that the proposed incentives will not adequately encourage solar development in New Jersey, especially for the rooftop sector, because the "easiest" rooftops have been taken and many of the available sites in this sector are older and will require significant repairs, forcing developers to invest more in project costs for structural repairs. SunConnect states that an \$85/MW-hour incentive hardly supports development at the best sites, let alone ones that need additional work, and asserts that an incentive value of \$155/MW-hour better supports the development of older and costlier rooftops.

**Response:** Staff sees the record level of registrations under the TI Program for the commercial rooftop segment as evidence that the TI incentive of \$152/MW-hour was likely higher than necessary to incent this market segment. This assessment is supported by the Cadmus modeling.

**Comment:** Tattleaux Solar comments that the incentives for all program types are quite low and could potentially stifle development. In the commenter’s opinion, interconnection costs alone can be very high on a per watt basis, while the costs of land, materials, engineering, and equipment must also be considered. The commenter recommends incentive levels of over \$152/MW-hour as most of their projects are too costly to build with even a \$152/MW-hour incentive.

**Response:** Staff thanks the commenter, but sees no evidence to support the incentive levels

proposed and notes that many solar projects are being developed at significantly lower incentive levels in the TI Program.

**Comment:** Vanguard Energy Partners supports the comments submitted by SEIA and the New Jersey Solar Energy Coalition on this matter. A gradual reduction in incentive levels is required for New Jersey to maintain its current solar market. The commenter states that the Board should consider using the REC valuations proposed by MSSIA or Gabel Associates in lieu of those listed in the Straw Proposal for at least the first year, since the balance of system component costs are increasing, raw materials are becoming more expensive (increases as high as 200%), and add 4-5% to the overall project cost. Further, Vanguard Energy Partners states that interconnection costs have continued to increase year-over-year and that the increased costs of interconnection are prohibitive to smaller projects, even at the base \$152/MW-hour TREC incentive.

**Response:** Staff appreciates the comment and the reference to quantitative analysis, but Staff does not believe that material cost increases from the pandemic are representative of future market development costs. However, should the trend towards higher costs continue, Staff notes that such issues would be addressed in the one-year check-up process. Further, Staff notes that the Board has also expressed concerns over interconnection costs and delays, and has committed to improving the interconnection process.

**Comment:** SEIA and NJSEC in their joint comments state that they believe that “some of the incentive values under the TREC program were too high. We also support the general concept that incentive levels should decline over time, but our member companies believe that the proposed incentive level for commercial systems and community solar is substantially too low, as a result of overstated assumptions, including too high solar yield in the Base scenario for ground and roof.”

**Response:** Staff appreciates the commenters’ candor regarding some of the TREC incentives. Staff is recommending slightly higher incentive levels than were initially proposed in the Straw Proposal for many commercial segments, in part to help alleviate disruptions to the market. Staff does not agree that future solar yield assumptions are too high, as they are based on actual historical results.

**Comment:** SEIA and NJSEC also state that customer savings assumptions are too low in the Cadmus Capstone Report modeling. Commenters further note that the Board should use statewide rate averages by market segment rather than PSE&G rates.

**Response:** Because New Jersey rate design varies significantly between utilities, a single statewide rate may result in over- or under-payments in some service territories, or clustering of solar development in areas where the rate is attractive and little development in other areas. While this initial program design proposes not to differentiate market segments by utility territory for ease of administration, Staff proposes that the Board consider further refining incentive levels on an EDC-by-EDC basis in the “year-one check-up” discussed infra.

Additionally, Staff continues to believe that the targeted savings is sufficient to ensure a healthy demand for solar, and is based on a survey of the developer community by the Board’s consultant. The TI Program incentives, for example, targeted a level of savings comparable to the savings in the ADI Program, and has seen a strong market response.



**Comment:** The New Jersey Utility Scale Solar Association (“NJUSSA”) comments that, based on modeling submitted to the Board in response to the Straw Proposal, including from Gabel Associates and other industry groups, the Straw Proposal’s incentives are too low to support a robust solar industry and allow the state to achieve its solar development goals. NJUSSA claims that, in particular, the incentive for non-LMI community solar project is too low. NJUSSA predicts that the Board will not see any non-LMI projects at that rate, since currently LMI projects are facing serious difficulties in obtaining the necessary subscribers to support the projects that the Board approved in Year 1 of the Community Solar Energy Pilot Program. NJUSSA supports a floor value for the incentive applicable to all community solar projects, with each project having the opportunity to petition the Board for an increased incentive based on extraordinary costs.

**Response:** Staff thanks the commenter but points to the very high oversubscription of the Community Solar Energy Pilot Program at an incentive level of \$129/MW-hour. Staff remains committed to achieving the State’s ambitious objectives for solar development in different market segments at the lowest cost to ratepayers, and believes that the modeling laid out in the Capstone Report offers a strong baseline for achieving this objective. Further, as a policy matter, Staff recommends a higher incentive for community solar projects serving LMI customers and believes that most community solar projects will continue to deliver solar benefits to LMI customers.

**Comment:** Princeton University comments that it believes that using historic data from the state’s past solar development to project the cost of future development underestimates those future costs because the most cost-effective and desirable locations for solar have mostly been developed already.

**Response:** While Staff appreciates the commenter’s reasoning, it notes that there are also several reasons why historic data could overstate the cost of future development, not least the fact that equipment prices have been experiencing a downward trend over many years. Additionally, the opportunity for further reductions in soft costs such as permitting and interconnection remain largely unexploited. Staff expects to continue monitoring cost trends and may recommend incentive changes in the future if costs rise in a sustained manner.

**Comment:** The NJ Sierra Club notes that it is important that the process reflect the actual costs of certain sectors of the market and that the Board must keep in mind that certain segments may need more funding to be completed.

**Response:** Staff agrees with the commenter’s point regarding actual costs, and notes that recommended incentive levels are based on the modeling of project costs for the different segments with data collected from actual projects completed in New Jersey.

**Comment:** The NJ Sierra Club comments that it would like to see the administratively-set solar incentive for net metered projects of 2 MW or less raised.

**Response:** Staff notes that several of the recommended values for the ADI Program are higher than they were in the initial Straw Proposal. In general, however, Staff believes that there is a compelling interest in increasing clean energy deployment at the lowest cost to NJ ratepayers, which will allow for the purchase of more solar in a manner that balances affordability with the need to combat climate change.

*Question 9. Staff proposes to set incentives every three years to provide market certainty. However, using an administratively set incentive risks the potential for market under- or over-performance in any particular sub-market. What measures could be used to stop an overheated market and prevent inefficient use of incentive funds? Should the Board consider implementing measures such as a declining block structure, downward adjustments on the quarterly capacity allocation for the market segment, or others? How should the Board consider and assess market underperformance?*

**Comment:** ACE comments that incentives should be reset more frequently than every three years if the market overheats, and that incentives may have to change as new technologies emerge, which will presumably lower the cost of solar systems.

**Response:** Staff agrees that an initial review after a shorter time period is appropriate, but expects the markets to stabilize in future three-year segments. Staff also notes that the Board retains the ability for adjustments before the end of the three-year period when circumstances warrant.

**Comment:** Centrica Business Solutions proposes a review of the program every two years to reduce administrative burden and market uncertainty. Centrica Business Solutions states that without clear visibility of incentive levels over 12 months, there is too much uncertainty to develop projects.

**Response:** Staff appreciates the comments and strives to strike a balance between adjusting incentives based on market behavior, and offering a stable environment. The three-year reset period appears to provide the type of certainty that commenter seeks, and Staff proposes that the Board commit to provide updated incentives at least nine months before the three-year period ends.

**Comment:** MSSIA believes that revisiting rates at one-year intervals could, and should, continue. As long as there is adequate notice of any change in incentive levels, a yearly review should not be too burdensome. An annual review should help to address overheating or under-performance of any market segment, and will also allow BPU to respond to any substantial and widespread changes in market conditions.

Princeton University recommends that incentives be determined annually, especially in the first year.

**Response:** Staff is recommending an initial one-year evaluation but does not share the assessment that yearly reviews will continue to be necessary and believes incentives must remain constant for a longer time period to provide stability to the market. Given the lengthy development time for large solar projects, annual resets would mean that a project could experience multiple incentive levels over the course of its development, undermining the certainty that developers need. Staff also notes the TI Program and Successor Program proceedings have demonstrated that incentive-setting is a complicated and lengthy process, and would be a significant burden on both the Board and on market participants should it need to occur over several months every year.

**Comment:** NJRCEV believes that the restrictions in the Staff Proposal, which limit Staff's ability to intervene in adjusting incentives until a "market-wide event" occurs, are counter-intuitive to

the ideal of fair price setting. Furthermore, NJRCEV claims that committing to a 10 percent cut to incentives – should a market-wide tax or tariff-event not occur – is a recipe for failure. Referring to Bloomberg and PVInsight showing that solar panel costs are increasing for the first time since 2013, it states that Staff should intervene on a routine basis, based on the preferred performance of market segments (which should be reviewed annually), and informed by real metrics and cost.

**Response:** Staff disagrees that routine interventions or resets to solar incentive levels are conducive to a long-term stable solar market. While Staff does agree that one initial evaluation period, which the Order refers to as the “year-one check-up,” is appropriate, in general, interventions in the market should be limited to market-wide phenomena such as changes in tax law or tariffs that make a material difference in solar costs or revenues. As noted above, the average development time for large solar projects often exceeds a year, and annual resets would mean that a project could experience multiple incentive levels over the course of its development, undermining the certainty that developers need. Additionally, Staff believes that commenter may be misunderstanding the proposal around what happens if the Board does not take action at the end of a three-year period. The 10% reduction would only be effected if the Board decides to not take action and is not intended to address tax or other exogenous market changes.

**Comment:** Sunconnect proposes that the Board reevaluate the proposed incentive value reset mechanism, claiming that implementing increments of three-years or less will create an unintended start/stop effect in the market. Sunconnect states that public proceedings take time and force the market to stall to ensure their project viability under the new incentive values. The commenter states that the most successful programs are those that foster consistent development throughout the life of the program and advocates for a five-year incentive timeline with an evaluation in year two. The results from the evaluation would be published in year three. If changes are necessary, they would not be implemented until year six; the start of the next five-year period. Sunconnect claims that any timeline under 5 years will hinder solar growth.

**Response:** Staff agrees with the commenter that stability and predictability in solar incentives is desirable for the long-term health of the solar industry, but considers three years a better balance between the need to adjust to changes and the need for stability. Further, Staff believes that there is a trade-off between ensuring that incentives reflect price decreases due to technology improvements and the length of time between incentive value resets. Staff proposes that the Board would reset incentives nine months before the end of the three-year period, which ensures that the new incentive levels will reflect the most recent cost data.

**Comment:** Tattleaux Solar comments that fine-tuning the evaluation and other criteria, creating a new landfill/brownfield/contaminated site sub-market, and annual adjustments to the overall program will serve to diminish “gaming” during the application process, minimize sub-market under- or over-performance and avoid misalignment between overall NJ solar program goals and results.

**Response:** Staff agrees that program design should minimize or eliminate gaming, and is recommending an initial one-year opportunity for adjustment. However, Staff fears that annual adjustments would create too much uncertainty in the market, as discussed in response to other comments above.

**Comment:** SEIA and NJSEC support the concept of a full-scale review of the administratively set incentives every three years but recommends that the Board also review the incentive program once a year to ensure progress is being made toward the State's solar goals. They further state that this review "would afford the BPU Staff an opportunity to recommend adjustments to incentives based on unforeseen factors – such as COVID 19, new federal policy, or significant market underperformance as defined by more than 25% under market segment allocation goal levels. Any decrease in incentive levels that would result from such review should also be implemented at least 6 months from a decision to allow the market time to respond."

**Response:** Staff agrees that keeping the incentives in line with new developments that impact the market is important, and recommends an initial review one year after implementation of the ADI. Staff expects that, after the initial review, there will be less need for quick adjustments, and that the market will benefit from a three-year period of incentive stability. In addition, the Board can consider interim adjustments if circumstances warrant.

**Comment:** The New Jersey Utility Scale Solar Association expresses support for a three-year adjustment period. Similarly, CCSA states the belief that setting incentives for three years is appropriate, noting that other markets have placed guardrails around any price or market structure changes and committed that any changes within a specific window of time will not change pricing by more than a set factor.

**Response:** Staff thanks the commenters for their support.

**Comment:** Mike Winka comments that the three-year market reset is reasonable but that the Board should retain the authority to modify existing projects if they exceed a maximum return on investment or a payback threshold that the Board would set for each sector. Mike Winka further proposes that the Successor Program should include a sunset date requiring the agency to take action.

**Response:** Staff thanks the commenter for his support, but thinks that the option to modify existing projects would create too much regulatory uncertainty and add substantial complexity to the program. Instead of a sunset date, the ADI Program includes an automatic reduction on incentives after three years if the Board takes no action, but provides regulatory stability by keeping incentives already awarded at constant levels.

### ***Issues of Equity***

This topic was covered in questions 37 and 38 of the Straw Proposal.

*Question 37. Should the administratively set incentive program include an adder for projects that benefit environmental justice communities? For the competitive solicitation? If so, should there be criteria to select the projects with the highest benefits? How can "benefits" for these communities be quantified?*

**Comments:** Ameresco, Nexamp, Tattleaux Solar, Jeanne Fox, and Source Power Company all support an adder for residential solar located in LMI or Environmental Justice Communities.

CCSA supports adders, noting that the Straw Proposal's differentiation between LMI and non-LMI projects is appropriate but insufficient. The commenter believes that community solar

should be further differentiated to reflect the cost of different project types, with different incentives for roof, ground, canopy, and preferred ground systems. CCSA also supports an adder to solve for the fact that master-metered LMI buildings receive a lower community solar bill credit rate than individual LMI residential accounts.

Vote Solar sees a need for adders for LMI residential; LMI multi-family / affordable housing providers; and community ownership within an overburdened community. The commenter believes that low-income customers require higher savings thresholds to participate in solar and recommends including modeling assumptions that allow customers to achieve 50% bill savings. Vote Solar points to its partner, PosiGen, as one example of a provider that has demonstrated its ability to save these customers money while also providing energy efficiency. Vote Solar recommends LMI-specific financial incentives that are paired with EE.

**Response:** Staff thanks the commenters for their input. Staff recognizes the important public policy interest implicated in the recommendation to provide LMI customers a higher solar incentive. However, as discussed in the Order, Staff believes that such an adder would bring additional complexity to the administration of the new program and believes that alternatives can be better considered once the Board gathers additional data on how best to deliver services to LMI homeowners. Further, Staff believes that the proposed differentiation by market segment will be sufficient to motivate investment in the community solar market serving LMI customers.

**Comment:** Source Power Company recommends that the Board implement a scoring rubric, similar to the scoring for community solar projects under the Pilot Program. The scoring could consider whether the project is physically located in an environmental justice community, creates jobs in an environmental justice community, and provides energy to residents in the environmental justice community.

**Response:** Staff thanks the commenter for its suggestions. Staff commits to continuing to review this issue and points to the Community Solar Program as evidence of the Board's dedication to serving LMI access and equity. However, the magnitude of the SuSI Program would make individual analysis of each project very difficult and could substantially slow deployment of solar in New Jersey.

**Comment:** CCSA states that EJ communities have disproportionately suffered from the ill effects of pollution for decades or longer and deserve to benefit from clean energy. Many frontline/environmental justice communities live in constrained geographies that may lack affordable open space or suitable rooftops for siting community solar. CCSA recommends that the Board use existing mapping from the NJ DEP, the US EPA, or another relevant entity to determine eligible areas.

**Response:** Staff appreciates the sentiment expressed in this comment, and encourages the commenter to bring its recommendations on identifying areas that could specifically benefit from solar to any future proceeding on overburdened communities.

*Question 38. How else could the Board consider designing the program to encourage broader participation among traditionally underrepresented groups?*

**Comment:** Rate Counsel supports community solar as a means of facilitating access.

**Response:** Staff thanks Rate Counsel for its support.

**Comments:** ACE advises that project selection should focus on underrepresented groups whenever possible. Vote Solar advocates for “an equity-focused budget for community investment through NJ's SREC program, such as that proposed by the Clean Energy Equity Act.”

**Response:** Staff will continue to review this issue and encourages the commenter to bring its recommendations on identifying areas that could specifically benefit to any future proceeding on overburdened communities.

**Comment:** Source Power Company suggests maintaining proof of participation in LIHEAP, Universal Service Fund, Comfort Partners, and/or the Lifeline Utility Assistance Program as one way to qualify for an adder. Requiring copies of the first and second pages of the would-be subscriber's previous three years' Federal income tax returns is prohibitive to acquiring subscribers. Any affordable housing provider or person residing in affordable housing should qualify without further documentation. Also, the Board should develop a map of disadvantaged communities based on census data and allow any resident of a designated disadvantaged area to qualify without further documentation.

**Response:** Staff encourages the commenters to bring recommendations for specific implementation measures to future proceedings on this topic. However, Staff is not recommending inclusion of a specific adder for residential solar projects at this time.

**Comments:** CCSA advises that energy equity challenges should be addressed further by convening a working group or some other means of ongoing dialogue with stakeholders to find solutions that will create meaningful change to the issue of household energy burden. The first step in addressing this challenge is to measure it.

SEIA/NJSEC recommend that the BPU review program participation statistics for low-income and environmental justice communities during the three-year program review and revise the program as necessary to enhance their participation.

**Response:** Staff agrees that measurement of solar access by income is critical, and points to the recent creation of the Office of Clean Energy Equity, which has been charged with enabling the dialogue proposed by commenters. Staff also agrees that relevant data should be used to evaluate and is particularly interested in learning more about the overall SuSI Program's effectiveness in reaching overburdened communities. Further, while the Community Solar Program is still in its infancy, early results show a strong uptake of community solar in LMI communities.

**Comment:** SEIA and NJSEC posit that public buildings and other infrastructure can provide low-cost opportunities to install community solar projects or other clean energy investments that directly support frontline communities. They support a public entity off-taker based adder and recommend that the Board partner with community-based organizations on implementation and marketing of available incentives to ensure they reach the desired audience.

**Response:** Staff appreciates SEIA and NJSEC's thoughts, and agrees with the principle of promoting equity through enabling public entities to benefit from solar as well as the opportunity for partnerships with organizations serving overburdened communities. Additionally, Staff notes

that it is recommending a public entity adder for several market segments.

**Comment:** Vote Solar highlights the importance of consumer protection guardrails and suggests coupling solar with weatherization and EE assistance, and prioritizing solar + storage in overburdened communities. Vote Solar states that there is a need for trusted messengers and recommends that the Board have a team of advocates rooted in overburdened communities who can talk about the benefits of community solar.

**Response:** Staff appreciates Vote Solar's expertise and encourages it to bring specific recommendations to any future proceeding on this issue. Staff also notes that the Office of Clean Energy Equity was recently created specifically to address this topic. The Board takes issues of equity and access very seriously, and Staff welcomes a continued dialogue on the matter. Staff is particularly interested in ensuring that the unique consumer protection needs of participants from the LMI/EJ community are met.

**Comment:** Wayne DeAngelo on behalf of IBEW 926 suggests that PSEG's Solar for All program can be used to serve LMI communities.

**Response:** Staff appreciates the comment. While agreeing that all avenues to expand access should be explored, Staff notes that the Solar 4 All program has historically been one of the more costly and risky programs for ratepayers, because it involves substituting ratepayer capital for private investment and allowing utilities to earn on the capital. Further, there does not appear to be any lack of private capital investing in the solar market, which was, in part, the basis for allowing the original Solar 4 All program. Therefore, Staff has recommended not allowing ratepayer-funded EDC solar projects at this time.

### **Adders for Special Cases**

This topic was covered in questions 35 and 36 of the Straw Proposal.

*Question 35. Should "adders" or "subtractors" be used to further differentiate incentives by project attributes in both the administratively set incentive program and the competitive solicitation, only one program, or neither? Explain why.*

*Question 36. Would adders make the administratively set incentive program too complex when coupled with the anticipated differentiation envisioned for residential, non-residential roof, non-residential ground, community solar LMI, and community solar non-LMI? How could they be used most effectively?*

**Comments:** Rate Counsel, ACE, Centrica Business Solutions, and Warren County Agricultural Development Board are opposed to the use of adders and subtractors. Rate Counsel urges caution in use of adders and subtractors since they can be wrong and will under-incentivize some segments while over-incentivizing others. ACE sees adders as adding administrative complexity and creating uncertainty for developers and customers. Centrica Business Solutions states that if the pricing is segmented and calibrated correctly for rooftops, carports, and ground mounts, there should be no reason for additional adders. Subtractors should not be considered, as they are not off-taker-based adders which includes public entities, and location-based adders for desirable land uses (i.e., on contaminated land, floating solar, etc.).

**Response:** Staff shares the commenters' concern about the potential administrative burden

and confusion stemming from including adders to an incentive scheme and generally prefers differentiation by market segment to accomplish similar goals. As noted above, Staff is not convinced that canopies and carports should receive incentive levels above rooftop and other uses of the built environment. However, Staff does recommend creating a single adder for public entities for the reasons discussed elsewhere.

**Comments:** Nexamp, Ameresco, NJDWSC, Solar Landscape, Source Power Company, Tattleaux, Vanguard Energy Partners, CCSA, Jeanne Fox and Vote Solar support the use of incentive adders.

Nexamp strongly recommends that the Board consider adders to accommodate certain higher cost projects that current values would otherwise not allow. Adders allow the Board to target an individual policy preference, evaluate the costs of achieving it, and accommodate certain higher cost projects that current values would otherwise not allow. Additional adders should be considered for community solar projects that commit to higher levels of LMI participation to encourage projects to go beyond the minimum requirements. Ameresco recommends adders for LMI, carports, rooftops, contaminated sites.

Tattleaux Solar supports differentiating incentives by project attributes in both the ADI and CSI Programs. This will reduce "gaming" and allow different incentive levels based on qualitative and quantitative benefits of each project.

NJDWSC suggests adders be applied across administrative programs. Additional adders should be considered for community solar projects that commit to higher levels of LMI participation to encourage projects to go beyond the minimum requirements. Solar Landscape believes adders would be difficult to administer, but would be helpful in achieving social justice goals with solar. Source Power Company supports adders and subtractors as a tool to reach policy goals in both programs. An adder for the LMI portion of community solar projects can help developers and subscription management companies with the additional costs of targeting, verifying, and acquiring LMI customers.

**Response:** Staff now recommends an adder for public entity projects, but believes that for other cases the proposed use of market segmentation provides an effective incentive approach without the administrative burden and market place confusion likely caused by multiple adders. Specific questions about carports, contaminated sites, and LMI residential adders are addressed elsewhere. Staff is also concerned that adders actually increase the potential for gaming, as projects seek configurations that are maximize their incentive award. With respect to community solar projects, Staff notes that all projects selected in Year One meet or exceed the minimum LMI requirement, and therefore does not believe that an additional adder to achieve this goal is necessary.

**Comments:** Vanguard Energy Partners recommends the Board strongly consider adders for carports, canopies, floating solar, and dual use agricultural projects. Carports and Canopies are expensive installations and only account for 4.5% of the aggregate installations in NJ. The commenter believes that this low percentage reflects the fact that there should be more incentives for this type of projects. If the Board wants to lower the installation costs over impervious surfaces, higher incentives must be provided for these project types. The Board should also include a stacked adder for Dual Use Agri-Solar projects to offset the cost of steel required to post the arrays. This will maintain the land for farming purposes and allows the land to remain farmable while the array is installed. These arrays should receive additional



incentives for the CO<sub>2</sub> offset from the PV array and crops. Such a tiered adder will allow farmers to keep their land through lease agreements with solar developers and allow them to continue farming to generate revenue.

**Response:** Staff does not support the use of an adder for carports and canopies since these do not offer additional sufficient benefits over rooftop installations from a ratepayer perspective, as discussed elsewhere. With respect to dual use agricultural projects, Staff notes that the Dual-Use Act has been signed into law during the pendency of this proceeding and anticipates that issues affecting these projects will be addressed in the context of future proceedings implementing this law.

**Comments:** Ameresco, Nexamp, Source Power Company, Tattleaux, CCSA, the NJ Utility Scale Solar Association, and Jeanne Fox do not believe that adders would be too complicated to be implemented with the proposed scheme for incentive differentiation. Ameresco recommends adders for LMI, carports, rooftops, contaminated sites. Nexamp believes the proposed structure of the ADI Program does not adequately address project costs, and that adders would simplify that process. Source Power Company suggests that siting adders should be separate from off-taker type adders, with both types of adders implemented simultaneously. Tattleaux Solar believes adders would not make the program too complex as long as they are accompanied by higher scores in the evaluation criteria for the specific project attribute to be encouraged. CCSA states that adders are an easy way to send a clear market signal to developers on siting and LMI policy preferences. CCSA further notes that preferred siting projects should not be regarded inclusively with the project differentiation already outlined. For example, a project can serve LMI customers subscribers and be sited on a landfill. The New Jersey Utility Scale Solar Association does not believe adders would be too complicated. Jeanne Fox states adders should be used to encourage solar where it might otherwise not be developed in a competitive marketplace. Based upon the State's policies and needs, adders could be recommended for LMI projects, community solar, public entities (schools), desirable land locations and agricultural pilots.

**Response:** Staff believes the state's policy goals for the successor incentive program can be met through implementation of incentives differentiated by market segment as proposed for the administratively-determined incentive. Adders layered over differentiated market segments would pose an administrative burden on program registration management staff and the NJ SREC II administrator and contribute a potential source of confusion for market participants.

***Interim Incentive for Solar on Contaminated Lands (Subsection (t))***

This topic was raised during the stakeholder meetings.

**Comment:** CEP Renewables, also represented in comments submitted by Mark Bellin, Esq., NJ Utility Scale Solar Association, believes that grid supply systems on contaminated sites face unique challenges. The commenter does not believe that there are contaminated sites in New Jersey which are cheaper than others to develop, such that a competitive solicitation would promote cheaper solar on cheaper sites. In CEP's opinion, "[t]here are no cheap sites to remediate, particularly landfills." The commenter also notes that this type of projects has an unusually long development period, which it attributes to the various approvals needed from multiple government entities and from PJM, and states that developers often face a lengthy, expensive process to establish control over a site.

**Response:** Staff disagrees with commenter's suggestion that there is no differentiation of cost in developing projects on contaminated lands in New Jersey. All other things being equal, ratepayer funds would be more efficiently used incentivizing contaminated lands projects with a lower cost profile than a similar project with a higher cost profile. As discussed elsewhere, however, the Board and Staff have expressed strong support for accommodating the unique challenges associated with development of solar on contaminated sites. Staff invites interested stakeholders to participate in the development of the CSI Program, in particular to ensure that the competitive solicitation is structured in a way that is compatible with this type of solar development.

**Comment:** CEP Renewables states that the developers of projects on contaminated land must have certainty on their incentive level. For the Successor Program, the commenter, joined by NJUSSA and CS Energy, urges that contaminated sites participate in the administratively-determined incentive program so that developers know the value of the incentive ahead of their application into the program rather than having to wait for the results of a competitive solicitation process. If included in a competitive solicitation, CEP asserts that contaminated sites should not be in the same competitive solicitation market segment as rooftop grid supply systems and net metered systems over 2 MWs. The commenter also asserts that utility scale grid supply solar farms have significant economies of scale and that solar on contaminated lands can contribute to local communities.

**Response:** Staff agrees that developers face additional challenges when their projects are located on contaminated lands such as brownfields or landfills. The Board has recognized these challenges through the longer timelines allowed to projects selected under subsection (t) in both the SRP and the TI Programs. With respect to the commenter's proposal that subsection (t) applicants be allowed to continue to submit applications to the TI Program through the end of the year, Staff has recommended the establishment of an interim market segment within the ADI Program specifically for projects that would have applied pursuant to subsection (t) under the TI Program which should address many of the concerns raised by commenters. However, long-term, Staff recommends that subsection (t) projects, now referred to as "contaminated sites and landfills" by the Solar Act of 2021, will participate in the CSI Program. One important change from the Straw Proposal, however, is that Staff suggests, subject to the forthcoming CSI Program proceeding, that projects on contaminated sites or landfills likely be given their own market segment so that like projects compete against like projects.

**Comment:** CEP proposes an annual cap of 150 MW for contaminated sites and suggests that any expressions of interest/applications that would cause the cap to be exceeded should be deferred to the next year. The commenter and NJUSSA suggest that the incentive value for contaminated lands be set at a minimum of \$150/MW-hour and that these developers be provided the option of applying to the Board to receive a higher incentive if a developer faces "extraordinary costs" that would produce an unacceptable rate of return under the SAM model.

**Response:** Staff disagrees with commenter's suggestion that an incentive level of \$150/MW-hour is necessary to incent solar development on contaminated lands. The modeling effort undertaken by Staff's consultant, using actual project cost data, indicates that the appropriate solar incentive for contaminated lands projects in New Jersey is \$100/MW-hour. Additionally, Staff has noted the very high increase in subsection (t) applications in recent months, indicative of a strong appreciation for the TI Program incentive among project developers. For the same reasons, Staff does not find compelling CEP's suggestion that contaminated lands projects be

able to place the risk of higher-than-expected development costs on New Jersey consumers by allowing for after-the-fact petitions for a higher incentive. This would represent an inappropriate and extraordinary shifting of risk from developers to ratepayers for the benefit of private, unregulated developers.

**Comment:** CEP supports expanding the definition of “contaminated land” beyond brownfields, and suggests further expanding it to include the term “Industrial Establishment,” as defined by the Industrial Site Recovery Act (“ISRA”) rules, and “legacy landfills”, the NJDEP term for landfills that closed prior to 1/1/1982. CEP states that “Industrial Establishments” are commonly abandoned and underutilized, while suggesting that projects located on “legacy landfills” are unlikely to be built upon unless they are eligible for incentives as being located on contaminated land. In addition, the commenter believes that the language used in the Straw Proposal should match existing terms used by the NJDEP and recommends that the Board use the term “Contaminated Site,” which has been defined by NJDEP in its Technical Requirements for Site Remediation. The commenter also suggests that the Board establish a 50 MW pilot program for contaminated lands projects in lieu of a competitive solicitation and call for competitive bidding inside of the pilot.

**Response:** Staff appreciates CEP’s contribution of ideas and suggestions regarding the treatment of these projects in the successor program and encourages the commenter to participate in the ongoing stakeholder process that will inform the details of the CSI Program. Additionally, Staff notes that the Solar Act of 2021 alters the definitions that apply to projects on contaminated sites and landfills, and addresses several of the ideas raised by commenters. For the reasons noted above, Staff recommends denying the request for a pilot program in the new CSI Program, but remains open to ideas for how to make the competitive solicitation process work for all market participants.

**Comment:** Mark Bellin, attorney for CEP, comments that, in its current form, the Straw Proposal will eliminate future development of contaminated sites. Land control documents are the best way to ensure ease of access to these sites and expedite the development process. Bellin further states that the Straw Proposal has these sites competing with other smaller segments, like rooftop solar, and altering the tranche allocation to include a separate tranche for contaminated sites is not enough to remedy the issue.

**Response:** Staff has included a separate, interim incentive structure for projects on contaminated lands in the ADI Program. With respect to the CSI Program, Staff encourages the commenter to bring his concerns and recommendations to the ongoing stakeholder proceeding in which further details of the competitive sub-program will be discussed.

**Comments:** KDC Solar comments that landfills and brownfields should continue to be incentivized with a multiplier and receive the same incentives as in the TI Program, since the benefits of these projects exceed their costs and they should not be stifled.

Vanguard Energy Partners similarly comments that contaminated lands should remain in the ADI Program because they carry inherent risk which will prevent developers and investors from financing these projects.

**Response:** Staff agrees that projects on contaminated lands deserve special consideration, and proposes an interim incentive structure as part of the ADI Program. However, based on project cost modeling and NJ historical data on project costs, Staff does not believe that

incentive levels should remain at the level provided in the TI Program, nor does it believe that this type of project is unable to compete as part of a competitive solicitation process.

### **Megawatt Targets**

This topic was covered in questions 27 through 29 of the Straw Proposal.

*Question 27. Should the annual capacity targets for the administratively set program be set broadly for the whole program, or should the administratively set program be further sub-divided into market segments with individual Cost Caps? In other words, should the Board set Cost Caps for the residential sector, net metered commercial rooftop, net metered commercial ground-mount, etc., or simply allocate a certain amount of money to the whole net metered program? Staff notes that the community solar segment will have its own Cost Cap.*

**Comments:** Atlantic City Electric commented that the Cost Caps should be set broadly to ensure the most cost-effective projects are installed and operated. A limited number of caps will also be simpler to manage and understand. The Successor Program should establish the amount of funds for all net metered programs. If a subdivision is created it should be to exclude residential projects from commercial net metered projects.

EDF Renewable also suggested that MW targets for net metered projects should only have two market segments: residential and C&I. The single C&I capacity target totals should be increased. Any unused capacity in a given capacity block should be allocated to blocks with demand from projects.

**Response:** Staff agrees with the sentiment that capacity targets should be set for relatively large groupings of projects, even when incentive levels within the groupings are differentiated. Staff is recommending MW targets as large blocks set for net metered residential, net metered non-residential, community solar, and subsection (t).

**Comment:** EzNergy states that limiting the size of the market will result in job losses.

**Response:** Staff notes that the proposed capacity targets are set at levels that are in line with historic installation rates and follow the targets established by the Solar Act of 2021. These capacity blocks will be able to be adjusted by the Board as necessary based on market performance. The intent is not to stifle market growth, however, caps are necessary to ensure that customer affordability is maintained.

**Comment:** Gabel Associates comments that the capacity targets for the "Net Metered Commercial" category should be increased. The Straw Proposal contains a substantial increase for grid supply but provides no growth for non-residential net metered capacity. The proposal includes a 190 MW non-residential cap, compared to the 2018-2019 average of 184 MW per year. This is essentially a "no-growth" scenario; the capacity for non-residential net metered production should be increased to 280 MW which is consistent with the Straw Proposal's overall increase. Additionally, the capacity amount should be split between third-party owned and direct-owned projects in proportion to the historic proportion of these project types (60:40); excess capacity should be allocated to the other of the two sectors.

**Response:** Staff appreciates the comment, but stresses that the overriding objective for the ADI Program is to balance the benefits of solar to NJ ratepayers with cost considerations. Staff

sees no compelling arguments that ratepayers should pay more for, or even differentiate between, certain ownership models (direct owned versus third-party owned), with the exception of solar for public entities, for the reasons explained above. Similarly, the SuSI Program was developed under the premise of maintaining existing markets for solar in New Jersey, while developing a new grid supply market, which as designed will effectively double the size of annual new solar capacity. The targets recommended in the body of this Order also track the megawatt targets established in the Solar Act of 2021. Additionally, large non-residential net metered projects will be provided an opportunity to participate in the competitive program which, although the final size of the CSI Program and its constituent market segments is still to be determined, will most likely expand the effective size of the net metered non-residential market segment to well over 200 MW.

Finally, the Board will be reassessing these MW blocks on an annual basis, and can increase the targets if warranted by market response.

**Comment:** PowerLutions views the proposed MW targets per year as a reasonable number (based on historical data), but thinks that having a limit on applications would reduce market participation.

**Response:** Staff refers commenter to the statutory requirements that the Board implement for Cost Caps and megawatt targets for specific market segments. Additionally, Staff believes that a capped program is consistent with the Board's customer affordability priorities.

**Comment:** Mark Bellin on behalf of CEP commented that the targets should be subdivided to allow for a separate segment for contaminated sites where the incentive is administratively set. Bellin proposes setting a cap of 150 MW per year, with an incentive value of \$150/MW-hour. The commenter suggests that the Board should want to incentivize projects on sites with the most environmental and public health issues as they pursue environmental justice goals.

**Response:** Staff agrees that contaminated sites deserve special attention and has included an interim incentive in the recommendation for the ADI Program. Staff notes that a separate MW target has been set for projects on contaminated lands, both in the ADI Program and in the structure currently being considered for the CSI Program. However, based on extensive modeling and observations of the market, Staff disagrees that an incentive level of \$150/MW-hour is necessary, for the reasons discussed elsewhere, particularly given that the market for contaminated sites appears to be "over-heated" under the TI Program, with approximately the same incentive as the commenter suggests here.

**Comment:** Solar Landscape notes that segments of the market share should be reallocated to other sectors of solar development if there is excess capacity.

**Response:** Staff currently does not anticipate the need reallocate "unused" capacity, noting that it does not necessarily aim to achieve full subscription in all segments. Given that capacity targets will be set on an annual basis, by the time it becomes apparent that there is available capacity in a given market segment, the Board will likely be setting new targets for all market segments. Staff expects that the Board's process for setting new capacity targets will most likely include consideration of the prior year's performance. Moreover, Staff believes that such a reallocation process would reduce certainty and unnecessarily complicate the administrative process. Finally, aggregating the ADI Program caps into larger 150 MW blocks for both

residential and non-residential net metered projects should help address commenter's concerns.

**Comment:** NJ Solar Power recommends that the 750 MW capacity allocation or the total program costs should be divided proportionally among those who actually "pay the bills." There should be a differentiation between large and small commercial, with small commercial being classified under 500 kW. The commenter also recommends that the residential ratepayer allocation should be around 50% and small commercial around 10% of program capacity.

**Response:** While Staff appreciates the sentiment, Staff feels that the environmental and economic benefits of solar investments extend to the entire community, not just the market segments where installations take place. Staff further reiterates that the Board can reassess capacity allocations on an annual basis in order to reflect changes in the market should it become necessary.

**Comments:** NJ Source Power supports the plan to have the community solar segment maintain its own MW targets. Tattleaux Solar supports a different MW target for net metered residential versus net metered commercial to maintain each type's incentive qualities.

**Response:** Staff thanks the commenters for their support.

**Comment:** SEIA and NJSEC agree with the need for minimum set-asides for the residential and small commercial sectors to allow development of a diverse solar industry, however, they do not see a reason for non-residential net metered projects to be further differentiated by whether they are ground mount or rooftop projects.

**Response:** Staff agrees that separate capacity targets for ground mount and rooftop within the net metered non-residential MW Block would lead to segments being too small. Staff has instead proposed to aggregate the megawatt caps for all non-residential projects into a single 150 MW block.

*Question 28. Should the annual capacity targets for the competitive solicitation tranches be set with flexible parameters, such that the Board may accept more or fewer projects into any particular tranche based on viable project applications and pricing, as long as the total projects accepted into the competitive solicitation don't exceed the overall annual budget cap?*

**Comment:** ACE and Source Power support "yes" and argue for flexible parameters to be set and overseen by the Board such that the total authorized budget amounts serve as a cap on accepted projects, but not individual tranches. Tattleaux Solar supports accepting applications based on the strength of the tranche an application falls under. NJ Utility Associates also supports flexible parameters.

**Response:** Staff thanks the commenters for their input, and will consider these comments in the design of the competitive CSI Program. Staff encourages the commenter to participate in the stakeholder process for the development of that program.

**Comment:** Gabel Associates comments that the grid scale project market segment capacity should be given the opportunity to ramp up in coming years. Targets should be set at 20 MW in EY 2023, and 50 MW per year starting in 2024.

**Response:** Staff thanks the commenter for the input, and notes that comments about the deployment schedule for the CSI Program will be addressed in detail over the coming months. However, Staff expects that the CSI Program will attract significantly more megawatts into the market than the commenter suggests. That said, Staff's approach is to interpret market segment "targets" more as a cap, and thus expects that the amount of solar actually built is likely to be less than the "target," particularly in the early years of the CSI Program.

**Comment:** SEIA and NJSEC suggested that the budget cap should be flexible enough to accommodate viable projects with good pricing rather than lose these projects to an arbitrarily set budget cap. They suggest that unused capacity from other market sectors or the competitive solicitations at the end of a given year should be transferred and allocated to keep potentially closed market sectors open and work to avoid layoffs.

**Response:** Staff notes that budget caps and megawatt targets are required by the Clean Energy Act and the Solar Act of 2021, but agrees that a budget-based cap could allow for procurement of more than the assumed megawatt targets if the incentive value bids are favorable. With respect to the commenter's concern regarding layoffs, Staff notes that the competitive solicitations would create new market segments that are expected to significantly grow solar employment in New Jersey.

**Comment:** MAREC and American Clean Power comment that MW targets should be set by year to provide more assurance and certainty as to what those targets will be. Rather than using the budget cap as a firm ceiling on budget costs, the commenter suggests that the program could allow for an incentive total to exceed the budget for a year in any particular tranche or tranches. MAREC also proposes adjusting budget incentives depending on the tranches that have been designed.

**Response:** Staff thanks the commenter for its support of annual MW targets and invites the commenter to participate in the ongoing implementation of the CSI Program, in accord with the mandates of the Solar Act of 2021, over the next several months.

**Comment:** Mike Winka comments that the BPU should re-allocate the capacity proposed for grid supply projects to the existing community solar market share and create a new Local Governments and not-for-profits ("LG/NFP") ownership model for low-income households as follows: 1) add 60 MW to the existing community solar market for a total of 210 MW, and 2) add 140 MW to the new "LG/NFP" community solar for low-income households.

**Response:** Staff does not support the commenter's proposal. While the Board and Staff are highly supportive of community solar, Staff's proposed MW allocations seek to balance competing policy priorities, including maintaining existing solar markets, providing support for community solar, and creating new pathways for lower-cost solar development, specifically grid supply solar. The commenter's proposed reallocation would increase the overall costs of the Successor Program, and therefore decrease the number of total megawatts that can be incentivized under the SuSI Program.

*Question 29. Please comment on Staff's proposed megawatt targets for the first year (EY 2022) (see page 22).*

**Comment:** AD Energy believes that the proposed MW targets by segment are reasonable.

**Response:** Staff thanks the commenter for its support.

**Comment:** ACE comments that hosting capacity and feeder restrictions will determine the quantity and size of the projects that can reasonably be interconnected within the ACE distribution system. ACE has many feeders with different restrictions unless substantial upgrades occur.

**Response:** Staff recognizes that expanding solar installations in the State will require that interconnection issues be addressed, and plans to make this the focal point of a separate proceeding.

**Comment:** Ecology comments that community solar is the best way to ensure widespread and equitable adoption of renewable energy technology. This type of solar development allows many different systems, which vary in size, to grant discounts and facilitate subscription processes. The commenter also states that industrial roof areas in NJ are too large for PPA deals, which the commenter believes supports incentivizing community solar to maximize the use of impervious roof space.

**Response:** Staff agrees that community solar offers many benefits, but notes that other types of installations offer their own benefits and that it has long been the Board's policy to support a diverse solar market. Further, with the advent of the CSI Program, Staff anticipates that many of the large roofs the commenter references may become prime candidates for grid supply installations.

**Comment:** Gabel Associates states that the fixed annual targets will fall short of the goals of 17 GW by 2035 and 32 GW by 2050.

**Response:** Staff notes that the Board will set capacity targets annually based on both the goals in the CEA and available funds under the Cost Cap, and that the CEA and the Solar Act of 2021 allows the Board flexibility to increase solar procurements in the future. However, Staff also notes that solar progress should not be expected to be linear, and that the EMP analysis assumed significant cost reductions in solar incentives over the next 30 years. In order for that to remain the least-cost pathway, solar costs must continue to decrease significantly.

**Comment:** Nexamp comments that the 150 MW capacity allocation to community solar may be reasonable for a pilot, but the Board should try to increase this number, particularly in terms of future allocations to the community solar program. The Board should not question whether an even distribution of MWs for net metered residential or non-residential/commercial projects is the most equitable path forward. The Board's stated timeline also creates significant risk for under-supply of projects in the grid-scale program in the near term. The Board should reduce its grid-scale targets in the near-term.

**Response:** Staff thanks the commenter for its support of the community solar program, but notes that the SuSI Program has been designed with the goal of maintaining a diverse solar market, which includes community solar, net metered solar, and grid supply. Staff also notes that the Board will have the opportunity to grow capacity allocation for the Community Solar Program in future years if it deems warranted.



**Comment:** NJRCEV states that goals and related capacity allocations should be done on a MW basis, not on a dollar-based budget, and opines that the allocations should be flexible enough to shift resources between market segments based on segment performance.

**Response:** Staff notes that annual targets for the ADI Program are set in MW, but that the CSI Program is initially proposed to use budget-based targets. This would potentially allow the State to incentivize additional solar resources should incentive value bids be favorable. However, since the Board has stated its intent to ensure that the SuSI Program addresses customer affordability in addition to meeting the statutory obligation to remain within the cost cap, there is necessarily a connection between MW and costs.

**Comment:** NJRCEV believes that the residential solar and community solar allocations seem reasonable considering historical trends and current pipeline status but that the commercial net metered targets are too low and that the predominantly landfill allocation is far too high. The commenter recommends shifting over 100 MW or more capacity from the preferred use grid segment to the commercial net metered targets. Also, the commenter asserts that basic grid, which it equates to former Subsection (r), projects has not yet been proven to be a viable market segment, despite receiving 130 MW of allocated capacity in Staff's proposal. NJRCEV believes that these figures should be altered to reflect actual project volumes, which will support the customer savings and jobs that the commenter believes are provided by commercial net metered solar.

**Response:** Staff notes that the program was designed with the intent both to maintain the existing solar market segments and also to develop new segments for grid supply and community solar. The targets reflect this intention and are also compliant with the Solar Act of 2021. The specific rollout schedule for the CSI Program will a topic of discussion during the forthcoming stakeholder meetings.

**Comment:** NJ Solar Power suggests the following targets: residential at 210 MW, community solar at 90 MW, Small Commercial: 50 MW. The commenter maintains that the additional MW in the residential sector provides added flexibility to encourage direct ownership for LMI customers.

**Response:** As stated previously, Staff notes that the proposed targets are intended to both maintain a diverse solar sector and reflect the recent history of the market. Moreover, Staff does not believe that the commenter presents a convincing argument that increasing the allocation of megawatts to the residential sector would necessarily encourage direct ownership for LMI customers.

**Comments:** Several commenters advocate for increasing the MW targets for community solar. Prologis advises that megawatt targets of 110 MW for the C&I projects less than 2 MW market segment and 150 MW allocated for community solar are too small. Similarly, Source Power supports an increase in MW targets for community solar, which it thinks should be prioritized. The new program design should contemplate a way to allocate a higher percentage of the total Cost Cap to community solar. Tattleaux recommends reducing Basic Grid Supply to under 40 MW and Desired Land Use Grid supply to under 75 MW, with the remaining MW re-allocated to LMI Community Solar. Tattleaux believes that this reallocation would allow more growth in the community solar market, which it believes has significantly more growth potential than the Grid Supply market.

**Response:** Staff thanks the commenters for their support for community solar and agrees that this new market segment, particularly LMI community solar, is important to New Jersey's overall solar equity and accessibility goals. However, Staff also reiterates that the SuSI Program is designed in part to ensure a diverse solar industry, which includes community solar, net metered solar, and grid supply.

**Comment:** CCSA states that most residents are unable to site solar on their property due to barriers on solar ownership. The commenter recommends adding more MW allowance to the community solar program first if there is any unused capacity in other markets. The Board should have a clear, transparent process for the movement of MWs between project categories and market segments. Other states have stranded capacity when market forces prevent certain types of projects from getting built and there is not a clear path for redistribution. Capacity that languishes for 12 months should be examined and MWs should be redistributed and adjusted for capacity based on development category and REC value.

**Response:** Staff agrees that community solar offers a pathway to residents who cannot install solar on their own property, and thanks the commenter for their support. With respect to reallocating capacity from undersubscribed segments, such an action would tend to undercut the clear sight lines and predictability that the SuSI Program is designed to provide. As noted elsewhere, Staff also does not believe that it is necessarily a practical solution: solar development is uneven over the course of a year. By the time it is known that a market segment will not be completely filled, the Board will likely be setting the MW Blocks for the following year, at which time it will be able to reassess whether to increase the capacity allocation to a given market segment.

**Comment:** SEIA and NJSEC commented that the proposed megawatt targets have been based upon historical build rate averages that fall far short of creating the level of solar construction required to meet the future goals of the administration.

**Response:** Staff notes that the total SuSI Program is designed to approximately double the annual growth of solar over today's levels. Therefore, Staff disagrees with commenters that the proposed SuSI Program design lacks ambition, and is excited to see continued growth in New Jersey's solar industry. Further, Staff notes that it is recommending that the Board establish MW blocks no less than once a year and that the Board has the ability to increase these targets as this appears necessary to satisfy policy goals.

**Comment:** NJ Utility Scale Solar Association agrees with the establishment of targets but believes that the MW target for contaminated site projects should be 150 MW per year.

**Response:** Staff notes that installations on contaminated lands have averaged 30 megawatts annually in the period 2016 – 2020. As indicated in the ADI Market Segments and Megawatt Blocks section of this Order, the target for the interim Subsection (t) program in EY 2022 is recommended to be set at 75 MW. Specific targets for the CSI Program will be developed in consultation with stakeholders.

**Comment:** NJ Sierra Club states that NJ currently is only installing 300-400 MW of new capacity per year and agrees with the proposal to increase that number to 900 MW per year. The commenter also believes that the State needs to more than double what is being done now

to meet long-term clean energy goals and believes it is necessary to utilize other funding mechanisms and regulations to push for greater solar adoption.

**Response:** Staff notes that the proposed MW targets are for FY22 only, and these targets will be revisited by the Board at least annually. Other funding mechanisms are outside the scope of this proceeding, but Staff encourages the commenter to bring its recommendations on implementing grid supply solar to the CSI Program stakeholder process.

***Non-EDC territories***

This topic was covered in question 10 of the Straw Proposal.

*Question 10. What are the benefits and consequences of allowing or prohibiting behind-the-meter projects in non-EDC territories to register in the Successor Program?*

**Comments:** ACE, Centrica Business Solutions and Mike Winka submitted comments recommending against allowing projects in non-EDC territories to participate in the Successor Program. The commenters noted that it would be unfair to offer incentives derived from EDC ratepayers to non-EDC customers or businesses who do not fund the SuSI Program. Additionally, Centrica Business Solutions claims that organizations outside of EDC territories are often unequipped to properly handle these types of projects. Lastly, Mike Winka further notes that entities such as municipal electric utilities and rural co-ops submitted testimony in the development of 1999's Electric Discount and Energy Competition Act to support their request that they not be included in the mandatory societal benefits charges, net metering, or the renewable energy portfolio standards requirements. These entities stated at the time that they could better provide programs for their customers and should not be limited to statewide programs.

If these municipal systems were to participate, SEIA and NJSEC recommend in their comments that they be required to create "rider" charges equal to the EDC societal benefits charge ("SBC") and that these funds be paid into the societal benefits fund. This would additionally allow these communities to participate in other energy conservation and efficiency programs funded through the SBC.

Tattleaux Solar, in contrast, notes that some low-income communities are located in these territories and that not allowing these territories to participate would create further barriers for these communities to benefit from New Jersey's solar programs. Tattleaux also maintains that the extra costs to allow non-EDC territory projects to register in the program are often minimal.

**Response:** Staff appreciates the input, and notes the opposition to participation by projects located in non-EDC territories. However, during the pendency of this proceeding, the Solar Act of 2021 was signed into law and it mandates that a project be eligible for the Successor Program when it is connected to the distribution or transmission system operated by a New Jersey utility or local government unit, which Staff interprets as synonymous with municipal utility.

***Program Registration***

This topic was covered in questions 5 through 8 of the Straw Proposal.

*Question 5a. Staff proposes to allow projects to reserve capacity against the quarterly capacity allocation on a first-come, first-served basis. Please provide any comments on this proposal.*

Commenters were mixed in their reaction to a first-come first-served (“FCFS”) reservation process as well as in the response to the proposal for a quarterly allocation of reserved capacity. Commenters questioned whether Staff’s proposal was limited to community solar or was intended to apply to each market segment. Commenters also questioned the relevance of the proposal to the CSI Program.

**Comments:** The CCSA advises that the FCFS proposal does not clearly state whether Staff recommends its use to reserve capacity for community solar projects as well as net metered projects. Ad Energy suggests that a market which is routinely closed and reopened will disrupt the lives of those depending on income from that market. An approach with quarterly caps on applications must also factor in project cancellations because application fees will only reduce the number of cancellations, not eliminate them.

**Response:** The proposed FCFS reservation process, which is now recommended to occur on an annual rather than a quarterly basis, would apply to all ADI Program market segments. Staff encourages commenters to bring questions and suggestions on the specifics of both the permanent Community Solar Program and the CSI Program to the relevant upcoming stakeholder process.

**Comments:** The NJ Sierra Club recommends the Board use a competitive solicitation rather than a FCFS approach to implement a permanent community solar program. NRDC/NJCF state that FCFS will create the problem that some projects may crowd out more mature projects.

Tattleaux Solar suggests that a FCFS approach will not work. Rather, the commenter argues that priority should be given based on: (1) Size - Smaller projects should get higher priority; (2) Type - LMI and net metered projects should get higher priority; and (3) Score - higher scores in the evaluation criteria should get higher priority.

**Response:** Staff notes that Tattleaux Solar, based on its reference to evaluation criteria, appears to be discussing specifically the Community Solar program or is referencing its earlier preference for a point-based evaluation system for all projects. Staff does not agree that a FCFS approach will result in crowding or is unworkable either in the ADI Program as a whole, and defers the discussion of its applicability in the Community Solar Program to a separate proceeding. The administrative burden to program managers and market participants from the suggested alternative, a prioritization scheme for all projects in the ADI Program, appears substantial, and would cause much greater delays between application windows as applications are reviewed and scored against each other. With respect to the comment about crowding out more mature projects: Staff agrees that this is a concern, but believes that it is better resolved through the adoption of maturity requirements as part of the minimum application requirements rather than through a change in the FCFS process for project registration.

**Comment:** Centrica Business Solutions advises that the quarterly allocation can slow down project development as the market has to wait for each round of solicitation. Instead, the commenter recommends using project maturity requirements to prevent an excessively large number of applicants from applying, especially those without a high level of certainty that the project will ultimately be built. Specifically, Centrica Business Solutions recommends maintaining the requirement to submit an Interconnection Service Agreement from the utility for

all projects, not just on projects greater than 2 MW.

**Response:** Staff agrees with the commenter is now recommending an annual allocation and notes that the proposed complete registration package includes minimum project maturity standards to discourage non-viable projects entering the registration queue or remaining in the queue indefinitely. For facilities sized 25 kW or greater and those up to 1 MW, those requirements include evidence of having submitted to the relevant EDC a Part 1 interconnection agreement signed by the customer-generator and installer. For facilities sized 1 MW or greater, they include an executed Part 1 interconnection agreement and a Milestone Reporting Form.

**Comments:** ACE advises that capacity allocations should be established on an annual basis since reserving capacity on a quarterly basis is administratively cumbersome and may result in less meritorious projects being selected.

SEIA/NJSEC supports the FCFS approach; "provided that the applicant meets pre-established eligibility requirements." However, the commenters suggest that the Board establish clear rules or guidance that allows developers to fix problems in their reservation application before applications are rejected. The commenters further opine that capacity allocation should be annual, not quarterly, stating their belief that the new program will differ from that in Massachusetts because they foresee a seamless transition between the TREC program and the administrative-set program for residential, community solar, and net metered projects. Additionally, the commenters fear that a quarterly FCFS approach may be unworkable for the residential solar industry, stating that the solar sales pipeline can be severely harmed by "arbitrary" gaps in capacity availability. Finally, referring to the importance of transparency when the available capacity is limited, SEIA and NJSEC urge the BPU to maintain a publicly available dashboard, updated weekly, detailing the exact amount of remaining available capacity in each segment.

**Response:** Staff agrees with the need for clear administrative eligibility criteria and is recommending such criteria, together with an annual allocation of capacity blocks. Staff recognizes that development is not linear throughout a year, and that quarterly capacity blocks could unnecessarily constrain development in some parts of the year, but not in others. Staff will work with the SuSI Program registration manager to ensure that the pipeline and current status of available capacity by program market segment is fully publicized and available to all market participants. However, Staff does warn that several of the concerns expressed by these commenters, as well as others, over starting and stopping of incentives and potential "gaps" in incentive availability are inherent in any capped program, and may exist whether the Board employs a quarterly or annual capacity allocation. Under an annual allocation, projects are less likely to quickly over-supply a given market segment, but once they do, the segment will close for the remainder of the year. Under a quarterly allocation, projects are more likely to over-supply a given market segment, but once they do, the market segment will re-open the following quarter. Thus, a gap in incentive availability for new solar capacity may occur under either scenario.

**Comment:** NJ Utility Scale Solar Association, representing developers of grid supply projects including those on contaminated lands, supports the FCFS methodology. In their view, any other methodology is unworkable. However, the commenter believes that waiting for any particular PJM milestone is not realistic, since they say that based on PJM's current backlog, it takes up to one year to obtain even a feasibility study. The commenter proposes definitive site control as the threshold requirement for locking a project into any particular queue.

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**Response:** Staff thanks the commenter for its support of a FCFS approach to project capacity reservation. Given PJM's current backlog in issuing feasibility studies, Staff's current belief is that recommending this milestone as a maturity requirement would restrict the universe of eligible projects. However, project maturity requirements for the CSI Program and many other implementation issues will be addressed as part of the ongoing stakeholder process that will develop specific rules and regulations for that program.

**Comment:** Rate Counsel advised that it is time to end ghost projects and queue sitters but this should be done through competition.

**Response:** Staff shares the commenter's concern over the potential impacts from speculative projects and "queue sitters," but believes that the use of competitive solicitation for all market segments would impose prohibitive transactional costs on many smaller projects.

*Re: Over-subscription in Admin Program 5b. & 5c.*

*Question 5b. Staff anticipates that there may be situations in which a quarter's allocation becomes over-subscribed. How should the Board handle over-subscription?*

*Question 5c. 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?*

**Comment:** Rate Counsel observes that oversubscription should be seen as a clear signal that incentive levels are too high and should be reduced.

**Response:** Staff agrees that oversubscription of a market segment's capacity allocation would likely indicate that the incentive level was high enough to motivate more projects to register than the Board had allocated capacity to serve. The Board will be monitoring subscription rates and should this occur, all else being equal, the incentive level for the next three-year period would likely be expected to be reduced.

**Comments:** ACE and the NJ Utility Scale Solar Association both recommend that if an annual or quarterly capacity allocation is over-subscribed, the excess projects should be moved into the next period. Similarly, Tattleaux Solar recommends that oversubscription of a given quarter's capacity allocation should result in projects being rolled over to the next quarter based on a prioritization scheme such based on; (1) Size - Smaller projects should get higher priority; (2) Type - LMI and net metered projects should get higher priority; and (3) Score - higher scores in the evaluation criteria should get higher priority. Tattleaux offers further that if the evaluation criteria were sufficiently constructed to align with NJ's solar capacity and LMI and ratepayer cost goals, then incentive capacity would be allocated to the most deserving projects.

**Response:** Staff is concerned that moving excess applications into the next allocation period could result in all capacity in a given segment being reserved for months or even years in advance. Moreover, over-subscription may be a signal additional changes to the ADI Program to address oversubscription may be required, such as adjusting a market segment's incentive

level, maturity requirements or capacity allocation. While Staff appreciates Tattleaux Solar's recommendation to apply state policy preferences to address oversubscription, such an approach would undermine the statutory goal of promoting a variety of types of solar and introduce significant new uncertainty for all market participants. Instead, Staff proposes closing the oversubscribed market segment to new registrants until the next capacity allocation is available.

**Comment:** AD Energy proposes a guard rail approach in response to an oversubscribed capacity allocation based on an application volume framework: for example, if the market response exceeds a quarterly target by 25%: then the Board should close program for that quarter and adjust incentive down by \$5.

**Response:** Staff sees some benefits to this type of formulaic approach to oversubscription. However, for administrative and market acceptance reasons, Staff does not support allowing registrations to continue to be accepted after a market segment is found to be oversubscribed, although this is a feature that may be employed in the future. In addition, given the EY22 proposed MW targets in the Order and historical build rates, Staff does not anticipate rapidly exceeding the MW targets set for each market segment. Staff welcomes a reassessment of the question of over-subscription as part of the one-year check-in, based on the experience of the first program year.

**Comment:** CCSA focused its comments on the community solar program, stating that based on the number of community solar applications in the first two years, it is clear there will be a continued interest in the NJ solar market for years to come. In fact, the commenter expects to see more interest than program capacity, especially in the early years. This oversubscription can be managed by adding megawatts to meet the market demand and using appropriate maturity requirements. Applicants in oversubscribed segments can plan to reapply during the next cycle. CCSA believes if the Board makes community solar available on a quarterly basis using a FCFS approach, it will give the market sufficient signals to continually develop projects and enter them into the program on a quarterly basis.

**Response:** Staff appreciates the comments in support of the Community Solar Program. Staff prefers an annual rather than quarterly capacity allocation, due to concerns about the potential administrative burden from, and adverse market reaction to, quarterly oversubscription. Staff expects that the Board will address over-subscription of a given market segment should it occur, and that it would consider several possible responses, including changes to maturity requirements, increased capacity allocations, and decreased incentive values.

*Question 6. Concern of "ghost projects" or "queue sitting" threatens the productive functioning of the incentive program. Please comment generally on the slate of project maturity requirements as proposed on page 13 of the Successor Straw or suggest alternative bidding requirements, including minimum criteria to demonstrate project maturity, site control, or escrow amounts to discourage speculation.*

**Comments:** Both PowerLutions and Evergreen Energy Solutions fear a rush to put in applications, even ones that are not realistic, just to 'save a slot' in the system. They offer

suggestions such as assurance payments and zoning plan approvals as potential solutions, while noting that each requirement has specific pros and cons. They make the point that developers need to have confidence that their project will be eligible for incentives before making substantial investments.

**Response:** Staff appreciates the concerns raised as well as the suggested solutions and has attempted in its recommendations to strike a balance on reasonable maturity requirements for project registration. Staff will continue to monitor registration activity, and may recommend reforms to the ADI Program registration process if they become necessary.

**Comment:** Nano PV states that requiring a contract between the primary installer and the customer of record is superfluous. Customers need to have the ability to select their installers based on project financial considerations and the market will reach a cap within its own timeline. Customers may be unable to enter a commitment at a pre-required time. Customers might also be willing to integrate components for the project with State-required standards and manage the installation by themselves.

**Response:** Staff believes that the submission of an executed contract as a minimum requirement is a useful demonstration of intent to construct. Staff intends to explore the opportunity to add a substitute instrument to serve the same purpose as a contract when a prospective owner has yet to select an installer.

**Comment:** Nexamp supports strong maturity requirements to prevent queue sitting. The commenter still urges the Board to look at milestones and requirements for community solar separately from the rest of the administratively set program.

**Response:** Staff appreciates the commenter's input on the potential need for requirements unique to each market segment.

**Comment:** True Green Capital recommends adding a requirement for developers to post a deposit of 10% of total costs as minimum maturity requirement upfront to enable relaxation of project completion deadlines.

**Response:** Staff appreciates the commenter's suggestion to require submission of a deposit as a minimum maturity requirement, particularly for larger projects participating in the CSI Program. Staff points the commenter to the discussion of project registration fees below.

**Comment:** NJ Utility Scale Solar Association suggests that site control be the only qualifying criteria. As an advocate for large scale projects, the commenter suggests that concern over "ghost" projects could be addressed by the Board establishing conditions with the incentive award (e.g., milestone timing) and a requirement to post an escrow deposit.

**Response:** Staff appreciates that site control can be an important indicator of project viability, particularly for the contaminated sites market segment. Staff will review the commenter's recommendations during the development of the CSI Program. Staff views the proposed requirement that developers meet milestones to retain incentive commitments and the



requirement to post an escrow deposit as ideas that may have merit and warrant additional stakeholder discussion.

**Comment:** ACE is concerned that "ghost projects" and "queue sitting" will negatively impact the Successor Program while unnecessarily taxing utility administration and engineering resources. The commenter notes that speculative projects reduce the amount of available capacity which can serve other projects. ACE agrees with the Straw Proposal's identified need for "minimum maturity requirements" but advises that they should be administered by the selected program administrator.

**Response:** Staff appreciates the commenter's concern about the use of ratepayer funded resources for projects which may not be able to proceed to construction. However, Staff believes it is the right of every ratepayer to submit an application to participate in the state's solar marketplace. Staff has seen no evidence that developers have submitted applications for projects which are known from the outset to be infeasible. Finally, Staff points out that the proposed Successor Program registration process, including the verification that minimum maturity requirements have been met, are all intended to be managed by the SuSI Program's registration manager.

**Comment:** Centrica Business Solutions believes that an Interconnection Service Agreement should be required for all projects.

**Response:** Staff does not believe that all solar market segments should be required to enter a full Interconnection Service Agreement as that term is used in the PJM Interconnection process. If the commenter is recommending the submission of Part 1 of the Interconnection Agreement executed by the electricity customer, the developer and the Electric Distribution Company ("EDC"), Staff agrees that requiring some form of this agreement may be a useful minimum requirement and has included proposed minimum registration requirements accordingly.

**Comment:** EDF Renewables finds that the proposed maturity requirements contained in the Staff Straw Proposal are too high. The commenter finds that commercial and industrial projects already make deposits to get EDC interconnection conditional approvals.

**Response:** Staff appreciates the commenter's perspective but notes that the deposits required by the EDC are not uniformly required across all market segments, nor are they required at a point in time which would limit registration to projects likely to proceed in a timely manner. However, for the CSI Program, Staff recognizes that the maturity requirements require further extensive additional discussion with all stakeholders and commits to having those discussions as part of the forthcoming proceeding.

**Comment:** Tattleaux Solar states that queue sitting is largely the result of preference for larger projects and their associated long interconnection processes and queues. Tattleaux finds that strict maturity requirements would not eliminate this but shortening the interconnection process for smaller projects is a viable solution.

**Response:** Staff appreciates the commenter's observation; however, the concern about

speculative projects reserving capacity at the expense of more viable projects exists in any market segment with a capacity limit. Staff advises that reforms to the interconnection process is the subject of a different proceeding that will be initiated in the near future.

**Comment:** CCSA supports the maturity requirements contemplated in the Straw Proposal to help ensure project viability and overall success of the program. Project maturity requirements require projects to meet a certain level of feasibility before they can move forward and claim program capacity. CCSA stresses the importance of balancing maturity requirements with development risks in a capacity-limited program. Balanced approaches provide certainty to all parties that the projects will work. The commenter finds that a large factor for feasibility is interconnection cost because it is difficult for developers to meet the proposed new requirements without the ability to work with the utilities to study projects in advance of capacity application. The commenter recommends taking best practices from other markets to mitigate the risk of interconnection costs limiting developers' ability to meet proposed new requirements.

**Response:** Staff appreciates the commenter's observations, and agrees that maturity requirements must be carefully balanced to ensure that they are high enough to prevent immature projects from registering, but not so high that they place an undue burden on development before being able to register for an incentive. Staff agrees that solar interconnection is a concern, and invites the commenter to participate in the forthcoming interconnection reform proceeding.

**Comment:** The Energy Storage Association ("ESA") recommends that the project maturity criteria allow applicants to change projects based on incentive award decisions. ESA suggests the following requirements, as taken from the New York Solicitations for Large-Scale Renewables: "the proposer must have discussed energy storage with the relevant interconnecting utility company and have identified the applicable requirements. Proposer has either (1) submitted a valid Interconnection Request for Energy Storage and demonstrates that all initial fees have been paid, or (2) prepared drafts of all initial Energy Storage interconnection application documents such that the Interconnection Request can be submitted within 3 months following an award from NYSERDA."

**Response:** Staff appreciates the commenter's sharing experience from other markets. The suggested flexibility in the project maturity requirements may be more apt for larger projects in the CSI Program rather than the ADI Program. Staff foresees that allowing projects to increase system size with no limit after reserving capacity in a market segment may lead to violating the megawatt limits established for that market segment and has instead proposed to provide developers a more limited ability to modify the size of their projects.

**Comment:** SEIA/NJSEC agrees with the strict project maturity and timeline requirements, but suggests these must be balanced with flexibility for extensions for issues beyond the developer's control. Once a project is mechanically complete, it should be exempt from interconnection delays and other issues beyond their control affecting an incentive commitment.

**Response:** Staff appreciates the commenter's concern for the issue and the suggested solutions. The project maturity requirements are proposed to address the issue of speculative

projects reserving capacity within a market segment at the detriment of tangible projects which can complete in a timely manner. Staff has also recommended that the Board empower Staff and the SuSI Program Registration Manager to grant one, six-month extension upon review of individual program circumstances. The Board has in the past heard petitions from developers, particularly in cases where the failure to meet program registration deadlines was due to factors outside the developer's control. However, Staff warns that all projects should be fully aware of program deadlines prior to submitting a registration, that managing the interconnection timeline is key to effective deployment of solar, and that market participants should not rely on the Board to continue providing blanket extensions, even in cases of interconnection delays. Instead, such requests will be handled on a case-by-case basis by the Board.

**Comment:** Mike Winka believes that the project maturity requirements listed in the Staff Straw Proposal are reasonable and workable to determine a project's maturity. There needs to be an appeals process when an EDC rejects a solar applicant for interconnection approval. In an EDC monopoly-based system, requiring producers who exceed caps to pay for line upgrades does not work. Line upgrades are not borne solely by the developer of new projects; they are socialized across the rate base to expand distribution. This must be the case when hosting capacity is reached and the developing EDC should be required to submit a distribution plan for Board review.

**Response:** Staff appreciates the commenter's evaluation of the Straw Proposal, and advises that reform of the interconnection process is the subject of a different proceeding that will be initiated in the near future.

*Question 7. Staff proposes that projects awarded within a quarterly window pay a fee to the program administrator to cover the costs of administering the program. The fee would vary based on project size (under 25 kW, between 25 kW and 500 kW, and over 2 MW). Please comment on what fee should be required for the three project sizes.*

**Comments:** Centrica Business Solutions recommends that the Board not require any fees for applications. Instead, the commenter recommends requiring a performance assurance for projects accepted to the program, which would be refundable upon successful completion of the project. Specifically, the performance assurance calculated by multiplying \$25 per each REC anticipated to be created in Year 1 of system operation, with a maximum payment requirement of \$75,000. Centrica Business Solutions suggests an equivalent system is used by Rhode Island to calculate their assurances for the Renewable Energy Growth Program, and that the refundable assurance process works very effectively, as it is reasonable, but not too burdensome.

Tatleaux Solar suggests that awarded projects pay a small administrative fee based in the range of \$0.01 to \$0.04 per watt based on size categories.

ACE recommends that these fees be payable upon start of construction.

CCSA supports the use of a program administrator to ensure projects are reasonably-sized and meet all program requirements. CCSA suggests that fees used to cover program administration

should be limited to ensure project development costs are kept low and consumer savings high. CCSA also recommends that the program administrator should provide a regular forum to provide updates and hold discussions with developers.

The NJ Utility Scale Solar Association supports an application fee of \$0.025 per watt, not to exceed \$25,000. The commenter states, as an example, that the fees paid to the NJDEP to submit a CAFRA application can be in the \$30,000 range, and suggests that an application fee would discourage “ghost” projects.

**Response:** Staff appreciates the input on administrative fees and the type of services the fees could cover. Staff appreciates the commenters providing examples of alternative means to dissuade speculative projects from reserving capacity allocation prematurely. Staff has recommended that the Board implement an application fee for the ADI Program with a one-year delay, in order to smooth the transition between the TI Program and the new Successor Program. The value of the fee would be set at a later date. Fees for the CSI Program will be discussed during future stakeholder meetings.

*Question 8. Staff proposes that developers seeking an extension beyond the initial 12-month deadline must submit a deposit, refundable upon project completion, equal to 10% of the project cost and not to exceed a value determined with stakeholders. Please comment on how Staff should determine the deposit fee for a deadline extension request.*

**Comment:** ACE agrees that a required deposit is a good idea to ensure that projects in the queue are completed. ACE believes that the administrative burden should be managed by the selected program administrator at a reasonable cost covered by the projects. ACE has no recommendation on the fee amount.

**Response:** Staff appreciates the comments in support of the proposal.

**Comment:** Centrica Business Solutions recommends that a fee equivalent to 10% of the project cost is excessively high. Instead, the commenter recommends that the first six-month extension should be free. Should a second six-month extension be required, Centrica Business Solutions recommends that the fee should be equivalent to the amounts they recommended as a performance assurance.

**Response:** Staff has modified its position, and agrees that no fee should be required for the first extension.

**Comment:** EDF Renewables recommends that project completion dates should be 18 months for all projects, and extensions should be allowable given proof of adequate project progress. The commenter also recommends an 18 month deadline for project completion with one 6-month extension allowable with a \$1.00/kWac deposit or a 12-month project completion deadline with two 6-month extensions, each with \$1.00/kWac deposit.

**Response:** Staff appreciates the commenter’s offer of alternative registration terms and deposit schemes. As a separate issue, Staff does not agree that capacity metrics should be expressed in kWac. The Board’s solar programs have consistently utilized the kWdc metric due to its

unambiguous and easy usage as a standard for project size verification and reporting.

**Comment:** Nexamp suggests the Board set any deposit at a dollars/MW basis, rather than as a percentage of project cost. The commenter advises that this approach is much simpler to implement and understand.

**Response:** Staff agrees with the commenter's position.

**Comment:** Spectacular Solar suggests that a 12-month time limit on construction is unreasonable, because solar developers rely on third parties.

**Response:** Staff believes that deadlines for project completion should vary between market segments based upon project size and other characteristics of a representative project within the market segment. Residential projects are frequently completed within four months or less. Commercial and industrial projects can frequently complete within one year. Projects on contaminated sites do frequently take longer than one year. Staff believes it is clear that different market segments should be treated differently with respect to project completion deadlines.

**Comment:** Tattleaux Solar advises that extensions should be provided strictly and based on the specific reason a project has been delayed. The only reasons for which projects should be provided extensions should only be unforeseen circumstances and conditions beyond the developer's control, such as delays in the interconnection process.

**Response:** Staff appreciates the commenter's perspective and agrees with the sentiment. In Staff's experience, developers often use interconnection delays as a rationale for an extension when some of the delay in the execution of the process is found to have been under the developer's control, and so is cautious about providing as-of-right extensions for interconnection delays, instead preferring for the Board to address these matters on a case-by-case basis.

**Comment:** True Green Capital recommends copying the elements of the Successor Straw Proposal for application in the Transition Program closure to enable projects to retain TI eligibility due to COVID and steep incentive declines.

**Response:** Staff appreciates the commenter's recommendation and refers the commenter to the June 24, 2021 Order granting a blanket extension to projects registered before the effective date of the Order, as well as the TI program closure Order presented as a companion item on this agenda, for additional details on TI project completion deadlines.

**Comment:** CCSA recommends that a proposal basing the deposit on project costs adds an unnecessary layer of complexity and confidentiality protection to the responsibilities of the program administrator. Instead, CCSA suggests the Board should set the deposit at a fixed amount based on capacity. A quantifiable amount is easier to administer and a more knowable risk for the industry to accommodate. This deposit should be met with a bond or letter of credit.

**Response:** Staff appreciates the commenter's input on the Straw Proposal and means to simplify administration of extension requests.

**Comment:** The NJ Utility Scale Solar Association suggests that for subsection (t) projects, the 12-month deadline should be increased to 24 months from the date that the project secures an

executed interconnection agreement with the local EDC and a WMPA with PJM. The commenter recommends that developers should be entitled to extensions based on legitimate and established force majeure events without penalty. If an extension is required and is not based on a force majeure event, it should require an additional payment of 10% of project costs not to exceed \$250,000.

**Response:** Staff appreciates the commenter's input on project completion deadlines, maturity requirements, and conditions and standards for extension requests, and will consider these in the upcoming proceedings for design the of CSI Program.

**Comment:** Solar Electric NJ comments that the possibility of a 6-month extension as outlined in the Straw Proposal is uncertain and makes it impossible to actually start a project. They also claim that requiring an executed interconnection agreement with an application is unduly restrictive for applicants.

**Response:** Staff appreciates the comment and has attempted to strike a balance between avoiding undue complications, and discouraging ghost projects.

### ***New programs and technologies***

This topic was covered by questions 16 through 21 in the Straw Proposal.

*Question 16. The Straw proposes to include a tranche restricted to hybrid systems (solar and energy storage) in the competitive solicitation. Staff seeks commentary on the following:*  
*a. The Straw proposes establishing a \$/MW-hour incentive for hybrid systems would be administratively simpler than establishing separate contracts for the storage and solar components. Please comment on this approach.*

**Comments:** Rate Counsel supports a pilot-based program for hybrid solar/storage as long as it is based on competitive bidding.

ACE also considers the competitive solicitation most appropriate for this segment, although it notes that an administratively set incentive would be easier.

**Response:** Staff thanks the commenters for their support.

**Comment:** The Energy Storage Association makes the following suggestions:

1. Any bidder in any one of the three competitive solicitation tranches (grid supply, desired land use, and large net metered) should be able to include energy storage in the project and propose a distinct and severable capacity-based storage incentive alongside the solar output-based incentive;
2. Solar bids should be evaluated first and separately, then storage bids attached to selected solar bids would be ordered from lowest to highest \$/installed kWh;
3. If the storage capacity target is not met after all bids are cleared, the remaining unused capacity should be added to the storage capacity target of the next program year; and
4. For any solar-plus-storage project that is selected in the solicitation but for which the storage incentive is not awarded, the solar project associated with that storage incentive bid may still receive an output-based incentive as a solar-only proposal.

The Energy Storage Association ("ESA") also advocates for a separate, capacity-based incentive for storage integrated with solar, rather than a single, output-based incentive to solar-

plus-storage projects as proposed, arguing that storage is a distinct segment and should be treated as such. According to the commenter, treating storage as a separate segment would also allow the Board to better meet administrative needs for program budgeting.

**Response:** Staff thanks the commenter for the detailed proposal. Staff believes that it is premature to establish a specific adder or market segment for distributed storage, and recommends that the Board defer such issues until a future proceeding. However, for items applicable to the CSI Program, Staff looks forward to additional discussion on these topics during the upcoming stakeholder proceeding.

**Comment:** The Energy Storage Association further notes that any incentives for solar should include an opportunity to add storage and that administratively set incentives for storage help to reduce “soft costs”, which they claim, can account for over half of the total installed costs of energy. The commenter recommends that the Board offer a one-time incentive of \$350/installed kWh for energy storage attached to any solar projects which qualify for incentives, or alternatively, a declining block incentive. Finally, the commenter urges consideration of the requirement for energy storage systems that receive an incentive, to demonstrate grid benefits beyond providing backup power.

**Response:** Staff appreciates the thoughtful comments, and will take these into consideration in the design of the CSI Program. However, Staff continues to believe that storage resources should be bid competitively, and that a fixed administratively determined incentive is not currently appropriate for a fast-developing technology, like storage.

**Comment:** ACE recommends that, assuming a 15 year incentive period, storage incentive levels should be based upon the projected end-of-life MW and MW-hour capability, and that bidders into the CSI Program be required to provide expected storage sizes for both the beginning and end-of-life periods.

**Response:** Staff thanks the commenter for the suggestions, and will consider these in the design of the CSI Program.

**Comment:** The joint submission of comments from SEIA and NJSEC agree with Staff’s suggestion that a separate incentive for the energy storage component in the competitive solicitation is an appropriate approach to encouraging hybrid systems. They note that the incentive should be based on duration, meaning that the \$/installed kWh would be multiplied by the duration of the energy storage system to reflect the variation in battery system costs based on the duration of the system. The commenters suggest the Board cap the duration-based multiplier at 6 hours.

**Response:** Staff appreciates the suggestion, and will consider this in the design of the CSI Program.

**Comment:** Ameresco urges the Board to include storage, particularly behind-the-meter, in the ADI Program, citing benefits of resilience, peak demand reduction and additional revenue for customers, and recommends creation of a performance-based incentive or demand response program.

**Response:** Staff appreciates the comments, and agrees that storage provides many benefits to customers and the grid. Staff does not currently believe that it is appropriate to provide an

incentive to behind-the-meter storage as part of the ASI Program, and encourages the commenter to participate in the discussion of storage in the CSI Program. Staff also notes that many of these benefits can translate into financial rewards for the owners of storage system, which should help in justifying the investment.

**Comment:** The NJ Utility Scale Solar Association recommends an adder for solar + storage projects, but does not want the projects to be in a separate category in the CSI Program, stating that categories in the competitive program should be strictly based on siting.

**Response:** Staff appreciates the input, and will consider the comments in the context of the design of the CSI Program.

**Comment:** NJCF and NRDC in their joint comments caution against overspending for storage, stating that the price difference between peak and low production times should be enough to fully pay for the investment. They argue that New Jersey is far from reaching overproduction at levels that would warrant intervention, and that battery storage will be competitive when this occurs. NJCF and NRDC further suggest that the Board focus on lowering transmission and distribution system costs, and on lowering non-GHG pollutants, especially in areas of environmental justice concern.

**Response:** Staff appreciates the comments and will continue to evaluate incentive design for hybrid solar + storage projects in its development of the CSI Program.

*b. How should the competitive solicitation account for battery degradation? For example, should applicants be required to commit to minimum performance metrics in order to qualify for the solicitation? Should applicants be required to commit to maintaining their stated capabilities until the end of the term? What criteria and documentation should the program administrator require as evidence?*

**Comments:** SEIA and NJSEC recommend that the manufacturer's battery degradation data be filed with the application and that performance standards and commitments should be set based upon anticipated performance as documented by the manufacturer at the time of application.

**Response:** Staff thanks SEIA and NJSEC for the comments, and will consider these in future proceedings.

*c. Please address how the competitive solicitation should normalize bids associated with different MW and MW-hour capabilities. Should the Board require pricing based on specific battery sizes to enable clear bid comparisons, or should the Board allow flexibility?*

**Comments:** Innovative Energy Storage Solutions notes that the Board should adopt an energy storage incentive that is: not based on energy output of the system but on the installed kWh of storage; paid upfront rather than over the lifetime of the projects; concentrated on smaller projects and net metered projects; and conducive to leveraging the multiple benefits of energy storage rather than just increased system resilience.

**Response:** Staff appreciates the comments and will continue to consider to evaluate incentive design for hybrid solar + storage projects in its development of the CSI Program.



*d. Please comment on the potential for allowing distributed storage developers to place offers that aggregate a pool of distributed resources into a single “virtual power plant” bid that can participate in the grid supply paired with an energy storage tranche. Please address whether this is technically feasible for implementation in the first round of auctions or whether it should be deferred for possible consideration in future development cycles.*

**Comments:** ACE states that multiple developers and customers could be involved in a virtual power plant project proposal, and that electric distribution companies should be encouraged to assemble virtual plants as part of their system infrastructure to help maximize virtual power plant benefits. ACE claims that it is necessary to allow sufficient time to develop rules regarding the structure of virtual power plants prior to incentivizing their use.

SEIA and NJSEC wholeheartedly endorse enabling the aggregation of energy storage devices in order for a system to participate in a Virtual Power Plant program. They note that VPPs created from net metered assets are based on rate design and utility tariffs that can be created and modified over time, and as such, deploying VPP configurations from the start is appropriate. They also note that due to continuing delays in PJM’s implementation of FERC’s Order No. 2222, it may be impractical to develop a program that allows aggregations to effectively compete in the first solicitation, and encourage the Board to explore this issue further in both the upcoming competitive solicitation stakeholder process and any subsequent storage-only proceeding.

**Response:** Staff appreciates the thoughtful comments and will continue to investigate the potential to allow distributed storage developers to place offers that aggregate a pool of distributed resources into a single “virtual power plant” bid as part of its development of the CSI Program.

*Question 17. For solar projects proposed on farmland that allow for continued farming on the same parcel, known as “agrivoltaics” or “dual-use programs,” is it likely that there is a market for dual-use projects smaller than 2 MW, or should Staff presume that all dual-use projects would be larger and enter the competitive solicitation?*

**Comments:** Ameresco recommends including dual use in the ADI Program as a way to preserve farmland. Tattleaux Solar recommends allowing dual use projects in the administratively-determined program with projects larger than 2 MW receiving lower incentives to limit use of farmland. BlueWave Solar and the New Jersey Utility Scale Solar Association comment that there is a market for smaller farms but there must be higher incentive levels, or it is unlikely they will develop. CCSA comments that there is a market for dual-use solar projects below 2 MW but there must be some incentive or preferred siting at that level to get them off the ground. Similarly, MSSIA anticipates a market for dual-use solar below 2 MW, and definitely under the 5 MW cap, and believes that strong dual-use projects should be considered alongside rooftop and contaminated lands projects.

SEIA and NJSEC note that it should not be assumed all dual-use projects will exceed 2 MW. All dual use projects should be incentivized with a location-based adder through the administratively set incentive program, regardless of size. Dual use should be allowed in both the administrative and competitive programs and the Board should establish a pilot program for

these projects, also incentivized with a location-based adder. Dual use should not have to compete in the competitive solicitation market.

**Response:** Staff thanks all commenters for their thoughts on agrivoltaics smaller than 2 MW and refers commenters to the recently enacted law providing for a new dual-use pilot program.

*Question 18. If dual-use projects are permitted into the competitive solicitation in future years, should they be permitted as a fifth tranche or into the basic grid supply tranche with an adder? If with an adder, how should the Board determine the adder?*

**Comments:** Knowlton Township Agricultural Advisory Committee comments that agrivoltaics is an unproven concept that only works in niche situations. It should not factor into any analysis of solar development. Similarly, the Warren County Agriculture Development Board notes that restricting solar development on certain “prime” and “important” farms will divert a large amount of solar development pressure to these otherwise productive properties and generally opposes the proposal.

**Response:** Staff appreciates the input and notes that the Dual-Use Act requires the Board to conduct a pilot program that will examine these types of projects. Staff welcomes continued stakeholder input to ensure that solar development remains compatible with preservation of the State’s prime agricultural sites.

**Comments:** CCSA, SEIA, and NJSEC oppose adding dual use projects to the competitive solicitation. They claim that there are not enough dual-use assets in the state to justify competitive solicitation for this project type. Also, there is not enough development of the technology within the incentive program, and state-specific costs are not well defined. They suggest all dual-use projects be incentivized with a location-based adder through the administratively-set incentive program.

**Response:** Staff agrees with the general sentiment that there is not yet enough information to create a full-scale, permanent program. Staff intends to develop a pilot program, in line with recent legislation.

**Comments:** Ameresco recommends using an adder to account for increased costs of higher mount types. BlueWave Solar also proposes adders of \$80/MW-hour for projects less than 3 MWdc and \$40/MW-hour for projects from 3 to 10 MWdc. They support their recommended adders with the following project assumptions: 10-20% increase in EPC cost; O&M increase of \$2.5-3k/MW; farm asset management costs of \$5k/MW-year; increased perceived risk for which investors demand a premium of 0.75-1% IRR; and a farm production subsidy of \$7k/MW per year.

**Response:** Staff appreciates the commenter’s efforts in providing detailed calculations accompanying the suggested amounts, and will take the input into consideration when designing the dual-use pilot program.

**Comment:** MSSIA recommends strong dual-use projects be included in the Straw Proposal’s desired land use tranche. They should also qualify for an adder to account for the higher cost and difficulty associated with building those projects.

Ecogy suggests either separating the market segments by size or giving a separate adder to smaller projects sited on rooftops and canopies. This would encourage the smaller dual-use projects which would otherwise be overlooked.

CCSA supports using adders to incentivize more agrivoltaic development and cover other costs associated with dual-use projects.

**Response:** Staff thanks the commenter for their input, but notes that the Dual-Use Act requires the Board to conduct a pilot program.

**Comment:** The NJCF and NRDC in their joint comments cite NREL research showing increased agricultural productivity in certain areas. They comment that this shows there is no need for larger incentives in this sector. They recommend a limited pilot program, co-developed with the DEP, at lower incentive levels.

**Response:** Staff thanks the commenters for their contribution, and will consider this in the design of the dual-use pilot program.

**Comment:** The Warren County Agricultural Development Board opposes incentivizing “unproven dual-use agriculture.” They have serious concerns about the viability of agrivoltaics as farming among a large-scale solar development does not appear practical or effective. The State should research these policies but not rely on them until they are proven.

**Response:** Staff believes that the dual-use pilot program will be designed so that it will provide more information on the topics mentioned in the comments.

*Question 19. Should additional siting restrictions be established for dual-use projects, for example, by limiting dual-use projects only to farms that meet certain soil characteristics or that are used for a certain type of herding, grazing, or crop type?*

**Comments:** The Warren County Agriculture Development Board opposes current siting requirements because they are not restrictive enough. They strongly caution against relying on the promise of unproven dual-use projects in formulating policy because farming among large-scale solar development does not appear practical or effective. They further claim that there will be a reduction in farmable land and issues with large-scale farming which cannot work underneath solar platforms since farming equipment does not work between large constructions like solar panels.

**Response:** Staff appreciates the comments. In the design of the dual-use pilot program as well as a permanent program, Staff will continue to weigh the competing interests of ensuring that sufficient solar is developed to meet clean energy objectives, and preserving open space. The Board is not a land use agency, but will work closely with the NJDA and DEP to establish suitable siting policy in line with statutory requirements.

**Comment:** Multiple commenters argue for less restrictive siting. Ameresco and MSSIA recommend expanding siting to include prime farmland. Similarly, the New Jersey Utility Solar Association argues that since the land will continue to be farmed and soil health can continue to

be improved, no prohibition on soil characteristics is warranted. CCSA concurs, noting that properly sited agrivoltaics can protect and increase yields in the future. Similarly, SEIA and NJSEC do not believe additional siting restrictions should be imposed. They believe there should be fewer restrictions to allow for a diverse range of farmers and agricultural uses and that the Board should consider expanding eligibility to include preserved farmland as well.

**Response:** Staff appreciates the comments. In the design of the dual-use pilot program as well as a permanent program, Staff will first look to the requirements of the recently enacted Dual-Use Act, which establishes detailed siting criteria, and will work closely with the NJDA and NJDEP to establish suitable siting requirements.

**Comment:** BlueWave Solar recommends adding measures to prevent pollinator and grazing projects from reserving funds and capacity. They support operational standards for continued agricultural production by projects rather than prescriptive restrictions.

**Response:** Staff appreciates the commenter's expertise in providing specific examples of considerations for design of a dual use program, and looks forward to a continued dialogue on the topic in the design of the pilot program.

**Comment:** The NJCF and NRDC suggest that the pilot for dual use be located outside the prime or statewide important soils within ADA to avoid conflicting with farmland preservation efforts.

**Response:** Staff appreciates the input and refers the commenters to the recently enacted Dual-Use Act.

**Comment:** Solar Landscape suggest dual use solar be considered carefully because New Jersey residents are hesitant to lose green space. Similarly, Mike Winka recommends that dual use on farmland not be allowed at all, claiming that it is not necessary to meet clean energy targets.

**Response:** Staff thanks the commenters for their thoughts.

*Question 20. What rules and regulations should be established to ensure either no loss, or a reasonable loss, of agricultural productivity for dual-use projects? What should be considered a "reasonable loss" of agricultural productivity?*

**Comments:** BlueWave Solar notes the difference between "true agrivoltaics" with higher elevated panels and "agrivoltaics lite" with less dense solar arrays at standard ground mount heights. They strongly discourage use of the concept of "reasonable loss" because there is inherent variability in productivity.

**Response:** Staff thanks the commenter for their input and notes that these will be topics of conversation in the development of the dual-use pilot program directed by the Legislature.

**Comment:** CCSA recommends convening a short stakeholder process involving farmers, universities, solar businesses, and others that could provide additional insight into a workable standard centered around farmers and preserving open space.

**Response:** Staff appreciates the suggestion and agrees with the sentiment.

**Comment:** MAREC comments that, if the Board moves forward with a pollination program, it should enact standards to balance added environmental benefits with long-term operations and maintenance, viability, safety, and reliability requirements. By nature, grid-supply solar facilities are site-specific and must be evaluated as such. The Board should consider how pollinator plantings will be evaluated for compliance with any necessary requirements, especially during early project operations.

**Response:** Staff appreciates the comment and looks forward to additional conversations in the design of the dual-use pilot program.

**Comment:** The New Jersey Utility Scale Solar Association comments that no rules or regulations should be established to enforce a “no loss of productivity” policy. This is a decision which should be market-driven. If farmers believe dual-use will result in loss of productivity, they will not pursue dual use solar. The commenters believe this will not be the case in most instances, the real and actual cause for the loss of productivity is that many farms in NJ are likely to be developed by other land uses based on local zoning because farming alone does not provide enough income. There is no actual support for the idea that dual use solar reduces farmland productivity, and the proliferation of this solar segment will likely preserve farms which would otherwise be developed for other purposes.

**Response:** Staff appreciates the comment and notes that these issues will be further explored in the dual-use pilot program directed by the Dual-Use Act.

**Comment:** MSSIA suggests starting with relatively modest requirements in the first year, with those requirements being ramped up over time. Agrivoltaics are currently limited to certain compatible crops, so it would be advisable to survey existing projects and research programs to assess realistic initial productivity requirements. Agrivoltaics are underutilized and should be better incentivized.

**Response:** Staff appreciates the input, and agrees with the support for further research in the design of the dual-use pilot program.

*Question 21. Are there additional solar technologies or use cases for which this Successor Straw has not yet considered that may be considered for the Successor Program, either now or in the future? Please explain.*

**Comments:** The North Jersey District Water Supply and NJRCEV recommend that floating solar be added to the Board’s support for new technologies. MSSIA recommends that floating PV be afforded the same treatment as recommended for agrivoltaics.

**Response:** Staff regards floating solar as an interesting development, mostly because it can alleviate development pressure on open space. From a ratepayer perspective, at this time Staff believes that floating solar is similar to rooftop siting, and therefore recommends awarding the same incentives to floating solar as to rooftop projects.

**Comment:** Ecogy comments that smaller solar projects are important for continued

development and should receive more consideration.

**Response:** Staff recognizes that smaller solar projects are inherently different from larger ones, not just in terms of cost structure, but also in complexity. Staff believes that a healthy New Jersey solar market requires a diversity of project types and sizes. Staff believes that the differences are adequately addressed within the ADI Program with the differentiation between different market segments and project sizes as recommended in Appendix B, and points out that project size is the overriding consideration for differentiating whether a project will participate in the ADI or CSI Program.

**Comments:** Several commenters, Nexamp, CCSA, and MAREC suggest that the Board further consider energy storage in the forms of net metered and solar-storage pairing. These systems provide benefits to the grid that are not achieved through the solar-plus-storage segment alone. MAREC strongly recommends that the Board allow for flexibility in project configuration options, allowing both AC-coupled and DC-coupled solar-plus-storage projects to participate in the incentive program.

**Response:** Staff regards solar plus storage as a rapidly developing technology space with a large potential and views distributed storage + solar as an area of potential future growth. As noted in the Order, Staff is generally supportive of expanding customer access to distributed storage technologies. However, Staff believes that it is premature to establish a specific adder or market segment for distributed storage, but commits to continue to monitoring the landscape. Further, as noted in the Order, Staff recommends that solar + storage be considered in the context of the CSI Program, including the potential to allow distributed storage developers to place offers that aggregate a pool of distributed resources into a single “virtual power plant” bid as part of its development of the CSI Program.

**Comment:** NJRCEV further suggests adding solar canopies, and other technologies as they emerge. They also note that solar canopies and carports should be considered for an electric vehicle charging adder to support the viability of that market.

**Response:** Staff appreciates the comment and refers the commenter to the various incentive programs advanced by the NJDEP, the EDA, and the utilities for building out the state’s EV charging infrastructure. However, Staff notes that the benefits of co-location of solar plus EV charging have yet to be demonstrated, and thus do not warrant a separate market segment at this time.

### **Solar Siting**

This topic was covered by questions 22 through 26 in the Straw Proposal.

*Question 22. Please comment on Staff’s proposed methodology for (a) limiting solar development on the areas specified on page 20 and (b) establishing a path forward for projects seeking to be developed on desired land uses that fall within otherwise prohibited siting areas.*

**Comments:** The Warren County Agricultural Development Board (“WCADB”) comments that the State Agriculture Development Committee’s analysis shows that to meet the State’s solar goals, 70,000 acres of farmland must be converted to solar by 2030. While normal market forces are not pushing developers to pay farmers enough to incentivize solar conversion, these projects are incentivized through State and Federal subsidies instead. The farmland

preservation program will therefore need to pay more to preserve farms as they are selling at higher prices to subsidized solar development, resulting in costs which will inevitably be borne by taxpayers. The WACDB believes that any incentive for solar development on productive farmland runs contrary to State, county and municipal plans that preserve these lands and undermines taxpayers' substantial investments in farmland preservation. Bradley Burke echoes these comments.

**Response:** Staff will continue to evaluate the appropriateness of incentivizing solar on farmland in cooperation with the NJDA and the SADC. With respect to dual use agricultural projects, Staff notes that new legislation has been enacted during the pendency of this proceeding and anticipates that issues affecting these projects will need to be addressed in the context of the requirements of this law.

**Comments:** SEIA and NJSEC urge the Board to reconsider allowing no more than 5% of grid supply solar facilities planned on farmlands to be within a county's designated Agricultural Development Area and consisting of prime soil. They urge the Board to reconsider the stipulation that a project shall utilize native plant species and seed mixes as a requirement for participation in the competitive solicitation program. They fear that overly strict siting requirements will be a significant barrier to facilitating grid-scale deployment.

Enel North America, MAREC, CCSA, Tattleaux Solar, and CS Energy offer similar comments. Enel North America argues that land hosting a solar array can be returned later to agricultural production, and that stable, long-term revenue from energy production can also help keep family farms in the hands of those families. Similarly, CCSA notes that there may be circumstances where solar development may prove to be a preferred alternative to other development options. CS Energy refers to their own GIS analysis which showed that out of 280 parcels, only five were good candidates for development, and that most parcels are either protected or too small to develop for grid scale solar.

**Response:** Staff thanks the commenters for their input, particularly when supported by data. Discussion on this topic will continue in the design of the CSI Program and implementation of the recently enacted Solar Act of 2021, which includes siting rules for the use of agricultural soils.

**Comments:** The NJCF and NRDC express appreciation for provisions meant to foster sound siting and urge caution in the use of waivers. They recommend lowering the cap for waivers from 5% to 1% of prime farmland.

**Response:** Staff appreciates the comments and notes that the Solar Act of 2021 contains specific stipulations for the use of farmland.

**Comments:** MSSIA agrees with the proposed siting restrictions except that dual-use agricultural projects should be allowed on prime agricultural soils, since these projects cannot be expected to meet productivity standards if they cannot be sited on productive lands. Similarly, Nano PV comments that the permitted categorizations for agricultural lands are general and do not take into account the various PV technologies useful for agricultural lands. Zoning should be modified to take into account all technologies available to these sites, including special greenhouse solar modules and Building Integrated Solar Photovoltaics.

**Response:** Staff thanks the commenters for their perspective, but notes that zoning restrictions

on the use of land with an agricultural designation generally do not fall within the purview of the Board of Public Utilities. Limits on the use of agricultural lands for solar were also adopted in the recent Solar Act of 2021 and will be implemented as part of the CSI Program.

**Comment:** Jeanne Fox recommends undertaking several pilots regarding solar development on farmland. The proposed limit of 5% for grid supply solar facilities on unpreserved farmland is reasonable, but several types of dual use solar should be piloted.

**Response:** Staff appreciates the comment and recommends continuing discussions during the design of the CSI Program and the dual-use pilot program. In addition, the Solar Act of 2021 specifically addresses limits on the development of unpreserved farmland.

**Comment:** Mike Winka comments that the decision to allow solar development on farmlands should only be made by the Department of Agriculture and the local county services as is consistent with the DEP Solar Siting Guide. Development on farmlands designated other than as for agricultural purposes should not be allowed without further DOA approval.

**Response:** Staff appreciates the comment, and refers the commenter to the recently enacted Solar Act of 2021. Staff also commits to working closely with the NJDA, SADC, and NJDEP on all siting considerations.

**Comment:** Jeanne Fox comments that brownfields and landfills should have their own segments and the Board should work with the DEP to ensure that ratepayers are only paying for the solar costs and not cleanup costs.

**Response:** Staff appreciates the comment. It is exceedingly difficult for the Board to differentiate between different uses of the awarded incentives. Instead, the Board aims to set incentives at a level that is as closely tailored to project needs as possible and that offers the largest total benefits to NJ ratepayers at the lowest cost, either through administrative modeling in the ADI Program or through competition in the CSI Program.

**Comment:** AD Energy comments that it would be useful to include a second siting dialogue to help clarify solar site availability in New Jersey. This would inform conversations related to the need for variation in incentives offered to site types and identify necessary policy steps to unlock underutilized site types.

**Response:** Staff agrees with the commenter that ongoing dialogue around variation of incentives is advisable, particularly with regard to the future CSI Program.

**Comment:** The New Jersey Utility Scale Solar Association recommends a categorical exemption for preferred siting projects. They do not think it is reasonable for the Board to ever deny a project where another State agency, like the DEP, has already approved the project. They also comment that it is unreasonable for the Board to approve siting of a project otherwise denied by other state agencies. A petition process in addition to the permitting process is redundant and unnecessary and the Board should categorically allow for permitted preferred siting solar projects in those exclusion areas.

**Response:** Staff agrees that the Board should not attempt to take the place of other State or local agencies for decisions on what are permitted land uses, but that the Board does reserve the right to award or withhold incentives for specific project categories.



*Question 23. Has Staff overlooked any siting categories for which solar development should be either expressly prohibited or otherwise limited as described in the Successor Straw and noted in the question above?*

**Comments:** CCSA comments that no additional land use restrictions are required. The New Jersey Utility Scale Solar Association comments that they do not support any additional land use restrictions on solar development beyond what already exists.

**Response:** Staff thanks the commenters, and, with respect specifically to the ADI Program, agrees that existing restrictions seem sufficient.

*Question 24. Has Staff overlooked any siting categories for which solar development should be considered a desired land use?*

**Comments:** The North Jersey District Water Supply recommends that floating solar be added as a desired land use. Ecology comments that solar development is underutilized in carports and there should be greater incentives for these areas which are much more costly than rooftop solar. Current incentive levels for siting carport projects are too low and will stifle development. Further, carport solar directly intersects with EV charging infrastructure and should be more widely encouraged to grow both sectors.

**Response:** Staff thanks the commenters for their input, and refers them to comments about floating solar, EV charging, and carports elsewhere in this document.

**Comment:** SEIA and NJSEC encourage the Board to consider relatively new land uses for development like floating solar on former mines and use of pollinator-friendly seed mixes within the desired land use.

**Response:** Floating solar on mines represents a new development that Staff is monitoring with interest. Staff recommends that pilots and adjustments to existing programs be considered in the future, when more specific information becomes available.

*Question 25. How should Staff consider relatively new land uses for solar development, such as floating solar, former mines, and quarries? Others?*

**Comment:** The North Jersey District Water Supply states that floating solar should be considered a desired land use and the Board should consider the creation of location-based adders that justify the higher risks and costs of development of these complex and relatively new land uses. Floating solar provides the ability to utilize water bodies instead of land, allowing for preservation of valuable green space, recreational areas, and agricultural areas. These benefits are particularly relevant for the areas within which the Wanaque Floating Solar Project is located. A net environmental benefit accrues to the source water via the cooling effect from shade which reduces algae bloom, reduces evaporation, and reduces the need for chemical addition. These floating solar projects have complex installation procedures and structures similar to those in landfill or contaminated lands projects.

**Response:** Staff agrees that floating solar could offer an additional way to alleviate pressure from solar development on open space. However, at this point Staff sees no evidence that floating solar should be preferred over rooftop installations. Moreover, to the extent that floating solar projects will eliminate the need for land rights acquisition and/or permitting, it is likely that these projects also benefit from some cost advantages. Staff therefore recommend setting the incentives for floating solar projects at the same level as for rooftop projects.

**Comment:** CCSA comments that it is hard to speculate on emerging and hypothetical projects, and it is too early to recommend a specific incentive level for New Jersey deployments. Former mines and quarries are already eligible and require no additional consideration.

**Response:** Staff appreciates the comment and agrees that more information is needed on new and innovative solar development.

**Comment:** SEIA and NJSEC comment that these relatively new land uses should be considered a desired land use and that the Board should consider the creation of location-based adders that justify the higher risks and costs associated with these desired but relatively new uses.

The New Jersey Utility Scale Solar Association echoes their response to question 11a. Additionally, they note that the Board could consider a category for “other” sites that are not captured, but they feel that any of those sites could fit into their prior proposed categories.

**Response:** Staff appreciates the comments. Staff does not generally support the creation of adders, except in the case of the adder for public entities, for the reasons discussed previously.

*Question 26. Please comment on a proposed methodology for qualifying “contaminated lands.” Please cite objective federal or state standards.*

**Comments:** The CCSA recommends investigating NREL’s Solar Development on Contaminated and Disturbed Lands report.

Rodger Ferguson, LSRP from Penn Jersey Environmental, representing CEP Renewables, proposed specific definitions for the term “contaminated lands” based on existing terms and definitions in use by NJDEP. The New Jersey Utility Scale Solar Association joins the comments submitted by Rodger Ferguson.

**Response:** Staff appreciates the suggestion, and will consider this in the development of the CSI Program.

***Competitive solicitation model for all grid supply projects and large net metered projects***  
This topic was covered by questions 11 through 15 in the Straw Proposal.

General note: Staff thanks all commenters for their input regarding the design of the CSI Program. As stated previously, Staff is recommending that discussion of the CSI Program be continued in a stakeholder process throughout the summer / fall 2021, with the goal of conducting the first competitive solicitation in early 2022.

*Question 11. Staff proposes to divide the competitive solicitation into four tranches to allow like projects to compete against like projects. The four tranches are designed to enable the Board to set policy preferences through the design and project requirements of the tranches, thereby enabling cost to be the single deciding factor in awarding bids in each tranche.*

*a. Please comment on the overall approach of using a cost-based bid determination within the four described tranches, rather than a single solicitation with a Staff-led scoring process, such as is currently used for the Community Solar Energy Pilot Program. What eligibility or other solicitation criteria could be established to enable competitive bids from a diversity of project types and market segments with divergent cost structures?*

*b. Please comment on the four proposed tranches: basic (i.e., open space) grid supply; desired land use (e.g., contaminated land, built environment); solar + storage; and net metered projects greater than 2 MW. Is this the optimal configuration for the competitive solicitation? Would you suggest any changes?*

**Comments:** North Jersey District Water Supply notes that floating solar is not included within a specified tranche and should be added. Also, all net metered floating solar projects should be moved to the administrative incentive program. The Board should consider creating location-based adders which justify the higher risks and costs of solar development on desired land uses.

**Response:** Staff has included net metered floating solar (below 5 MW) in its recommendation for the ADI Program. Staff does not generally support the creation of adders, except in the case of the adder for public entities, for the reasons discussed previously, and believes that the site- and size-based differentiation in incentive values and market segments is sufficient to reflect the Board's siting preferences.

**Comments:** CEP Solar and CS Energy both comment that they prefer Subsection (t) projects in the administratively determined market.

**Response:** Staff notes that the administratively determined incentive will be available on an interim basis for projects that would have been eligible for TI Program incentives pursuant to subsection (t). Going forward, however, as discussed elsewhere, there is sufficient cost differential between and among subsection (t) projects that the competitive solicitation will better promote the goal of incentivizing solar development at the least cost to ratepayers.

**Comments:** EDF Renewables disagrees with the competitive structure, noting that it is impractical. The commenter notes that companies cannot risk the time and money associated with starting new projects in such a complicated and expensive program.

Similarly, Enel North America notes that the competitive design should account for hurdles associated with reasonable siting requirements.

**Response:** Staff recognizes the positions expressed opposing the introduction of competition to the process of determining project incentive levels. Staff believes that there are significant advantages to a competitive process, particularly in light of the Board's goal to "right-size" incentives to project needs while ensuring the most efficient use of ratepayer funds. Staff welcomes the stakeholder's participation in the forthcoming CSI Program stakeholder process, in particular to discuss how to structure the program in a way that maximizes benefits to participants and minimizes financial risks or uncertainty. Staff believes that a well-designed

competitive solicitation will be neither complicated nor expensive for market participants, and should instead be a “win-win” for developers and ratepayers. For instance, Staff refers the commenters to the Clean Energy Act which directs the Board to use competition and long-term contracting where possible to reduce the cost to ratepayer in designing the successor incentive. Staff does not agree that large projects in desirable locations are incapable of participating in a competitive process.

**Comments:** NJCF and NRDC in their joint comments think the competitive model should also include descending clock auctions to allow different cost structures to reveal themselves.

**Response:** Staff thanks the commenters for their suggestion, and will consider this in the design of the CSI Program.

**Comment:** MAREC notes that price floors should be introduced to reduce uncertainty. Otherwise, the Board should create administratively set incentives for grid supply projects that mirror the other administratively set structures throughout the Straw Proposal, influenced by factors like likelihood of development, developer qualifications, best design, and best proposed land for the project.

**Response:** Staff thanks MAREC for their comment, and may consider temporary price floors in the design of the CSI Program. Staff recommends MAREC participate in the further development of the CSI Program anticipated to begin following release of this Order.

**Comment:** NJRCEV comments that, until the competitive program is established, there should be administrative incentives for all projects eligible for the competitive program. The Board should expand subsection (t) to offer these incentives.

**Response:** The recommendations for the ADI Program includes an interim administratively set incentive for solar on contaminated lands. Staff does not believe that a similar interim program for other projects slated for eligibility in the CSI Program is necessary or desirable.

**Comment:** The Energy Storage Association notes that incentives should be available for all three tranches in the competitive model. The Board should set energy capacity targets for each tranche to total 100 MW per year.

**Response:** Staff thanks the commenter for its input.

**Comment:** Mike Winka comments that all grid supply projects should be community solar projects because they are the least costly and should not be subsidized by ratepayer funds.

**Response:** Staff thanks Mr. Winka for his support for the Community Solar Program, but points to the extensive Cadmus modeling, which indicates that incentives are generally still needed for community solar in NJ to be financially viable. Further, grid supply projects do not typically receive net metering credits, which makes the expected total cost to consumers of grid supply projects lower than that of community solar projects.

**Comment:** ACE recommends a single tranche, rather than four separate tranches to allow selection of the most cost-effective projects.

**Response:** Staff appreciates the sentiment, but feels that there is value in developing solar in

different segments so that NJ can meet its clean energy needs and other policy objectives, including solar on preferred sites. Staff welcomes the commenter's participation in the forthcoming CSI Program stakeholder proceeding, where Staff anticipates discussing the exact number and structure of the solicitation tranches.

**Comment:** CED Greentech expresses its concern that larger companies will take up capacity in each tranche, and states that there should be a stopgap to limit the number of submissions in each quarter.

**Response:** Staff appreciated this concern, and will be looking for input on how to address this in the design of the CSI Program.

**Comment:** SEIA and NJSEC suggest separating tranches for rooftop, landfill, and the other project types in the "Desirable Land Use" category. These are inherently separate uses and should not be looped into the same category as this will inevitably favor some unfairly. The Board should evaluate bids against pre-established criteria and consider economic development associated with the projects and which milestones those projects have reached.

**Response:** Staff appreciates the comment and invites the commenters to participate in the upcoming proceedings to design the CSI Program, although Staff does currently agree that contaminated lands projects should be in a separate market segment.

**Comments:** MAREC notes that the incentive levels will remain unknown until the competitive solicitation is complete which will lead to uncertainty. This places unnecessary price risk on projects and makes it difficult for them to properly advance. This also creates a "race to the bottom" situation which drives incentive values down to a level which threatens project completion.

The New Jersey Utility Scale Solar Association also notes that competitive models create regulatory uncertainty which harms a project's likelihood of completion. If the Board is intent on continuing with a competitive model, it should consider a 50 MW competitive pilot program to test the model's effectiveness. It should also require the entire utility-scale marketplace to participate in the competitive solicitation and take steps to reduce regulatory uncertainty.

Similarly, NJRCEV comments that desired land use grid-connected projects need to be better encouraged. They do not think these projects belong in a competitive solicitation because they have long development cycles, increased costs, and other factors which set them apart. They struggle to continue without certainty of incentive revenue.

**Response:** Staff disagrees with the notion that competition will lead to excessive uncertainty. Once incentives are awarded, they remain fixed, which allows projects to reap a mostly guaranteed return; a luxury that very few commercial endeavors enjoy. However, Staff has also committed to consider price floors and other means of attracting participants into the CSI Program and invites stakeholders to express these ideas in the forthcoming discussions.

**Comments:** CS Energy comments that the competitive program should have two tranches: "preferred siting" for projects including rooftops, carports, and non-agricultural ground mounts; and "non-preferred siting" for non-preserved agricultural lands.

**Response:** Staff appreciates the comment, and invites the commenter to participate in the

upcoming proceedings to design the CSI Program.

**Comment:** Gabel Associates notes that the “Desired Land Use” category should explicitly include mining sites because old mines are no longer useful for any other purpose. Additionally, Gabel notes that solar can provide power to mining operations still underway, a separate use from the others in the category.

**Response:** Staff welcomes the suggestion, and is interested in exploring this further in the design of the CSI Program.

**Comment:** MAREC notes that there should be more consideration for a different standard that requires only projects 5 MW and greater to be evaluated by the grid supply standards.

**Response:** Staff will monitor program development and participation by grid supply projects less than 5 MW and recommend appropriate action if participation by projects less than 5 MW is not representative and if the program is not attracting sufficient participation.

*Question 12. Staff proposes to hold an annual competitive solicitation. Please comment on this proposed schedule. Specifically:*

- a. Would you advise running the solicitations more or less often, and if so, why?*
- b. Can all four tranches be administered on the same schedule, or should one or more be run more or less often than the others?*
- c. Should the program vary the solicitation frequency schedule based on liquidity in any given tranche? For example, if a given tranche fails to attract sufficient bids in one period, should the program provide extra time before holding the next procurement in that market segment?*
- d. Staff is particularly interested in determining if the net metered tranche should run more often than the grid supply tranches, and if so, why.*

**Comments:** Rate Counsel supports annual solicitations and sees a possibility for twice-per-year solicitations. Quarterly solicitations may not be feasible.

SEIA, and NJSEC recommend conducting the solicitation annually, and comment that the process may be smoother if the solicitations were staggered over a six-month period because some developers may be involved in projects spanning multiple tranches.

ACE comments that the projects should be consolidated into one tranche and if more than one is established, the schedule should be identical for each tranche. ACE further recommends that solicitations be held annually.

The New Jersey Utility Scale Solar Association comments that all tranches can be run concurrently.

**Response:** Staff thanks the commenters for their input, and encourages commenters to participate in the public proceeding that will further develop the framework for a differentiated competitive process.

**Comment:** The New Jersey Utility Scale Solar Association does not support any competitive program. However, if there needs to be a solicitation model then solicitations should be held

quarterly to allow room for oversubscription. The New Jersey Utility Scale Solar Association further states that there should be no extra time if a tranche fails to attract a specific number of bids, but staff can still adjust the MW targets and if any tranche is under-allocated their allocation can be moved to another tranche. The commenter notes that, if the threshold is increased to 5 MW, there will likely be no issue.

**Response:** Staff appreciates the suggestions.

**Comments:** SEIA and NJSEC comment that the solicitations should be varied, but the details of that variation would be better determined after the solicitation consultant's report is filed later this year.

**Response:** Staff welcomes the input and agrees with the sentiment.

*Question 13. In the interest of procuring the maximum amount of solar energy at the lowest possible price, Staff requests feedback on whether projects awarded within the competitive solicitation should be paid-as-bid or receive a single clearing price.*

**Comments:** Rate Counsel, the New Jersey Utility Scale Solar Association, MSSIA, and PSE&G strongly suggest paid-as-bid, consistent with past solicitations to provide lower program costs.

SEIA and NJSEC are also open to a paid-as-bid model but note that they are also open to other options proposed by the Board. The commenters note that a single clearing price model can easily lead to inequitable and arbitrary results.

ACE comments that a single clearing price is better in the interest of reducing administrative burden and increasing fair competition.

**Response:** Staff thanks the commenters for their input, and encourages them to participate in the public proceeding that will further develop the framework for a differentiated competitive process for incentive setting within the CSI Program.

*Question 14. Staff proposes that selected projects would receive a contract for REC off-take in a term of 15 years, due to the nature of heavily discounting outer-year incentives, as well for consistency with the administratively determined program. Please comment on this proposal and explain any alternative suggestions.*

**Comments:** Rate Counsel supports a 15-year term. MSSIA also supports a 15-year period, but notes that a 20-year incentive is more congruent with the useful life of solar investments and better mirrors other states' programs. SEIA and NJSEC recommend a 20-year period and note that bundled contracts are the most effective way of ensuring deployment, as this type of contract can drive down project costs and generally improve financing for solar panels.

**Response:** Staff appreciates the comments in support of a 15 year term for administratively-determined fixed incentives anticipated to be provided in the ADI Program. Staff has committed to exploring the appropriate term for projects participating in the CSI Program, as well as how to

ensure that the CSI Program awards are financeable on beneficial terms.

**Comment:** ACE comments that larger facilities are crucial in meeting the state's energy goals and that they want to avoid being a party to any long-term fixed price agreements because the credit rating companies can treat these long-term agreements as imputed debt for utilities. ACE comments that all established fees should be the responsibility of the selected administrators to manage.

**Response:** Staff reminds the commenter of the multiple goals described in the Straw Proposal which drive the Board's intention to develop a diverse solar marketplace. Staff appreciates the concerns over imputed debt, and invites the commenter to participate in the upcoming proceedings to design the CSI Program.

*Question 15. Staff proposes that projects applying to the competitive solicitation must post a deposit equal to \$40/kW of DC nameplate capacity of the solar facility in an escrow account. Projects proposed with energy storage would be required to place an additional deposit of \$40/kW of nameplate capacity of energy storage offered. The escrow amount would be reimbursed to the applicant in full upon either (i) the project not being awarded a contract through the competitive solicitation, or (ii) upon attainment of PTO for the solar electric power generation facility. If a project is selected, the escrow will be forfeited to the State on a pro rata basis for any kW capacity that remains unbuilt after 2 years, plus any applicable extensions.*

*a. Please comment on the proposed deposit fee(s) as they relate to the solar facility, whether it should be lower or higher, and why.*

*b. Please comment on the proposed deposit fee(s) as they relate to the storage facility, whether it should be lower or higher, and why.*

*c. The Straw Proposal seeks to ensure both strict project maturity requirements as well as general program accessibility. Please comment on whether the deposit should be required upon initial application or upon acceptance of a bid. In the alternative, should the Board require a lower deposit for initial application, followed by the balance due upon award?*

**Comments:** EDF Renewables states that the maturity requirements in the Straw Proposal are too high. Upfront development costs for grid supply projects should be sufficient qualifiers to indicate that the developer seriously intends to complete the project.

SEIA and NJSEC support a deposit amount that is high enough to discourage bids from projects that are unable to materialize, and note that this deposit should be capped at \$40,000. Similarly, the New Jersey Utility Scale Solar Association supports the escrow concept to mitigate against "ghost" projects and comments that developers should post the escrow with the initial application and, once awarded, the escrow should be reduced by 50% and returned to the developer to fund project costs.

**Response:** Staff appreciates the comments, and invites the commenters to participate in the upcoming proceedings to design the CSI Program.

### ***Community Solar Permanent Program***

This topic was covered by question 39 through 41 in the Straw Proposal.



General note: Staff appreciates the many comments regarding the community solar structure and guidelines and will take each comment into consideration in constructing recommendations for the design of the permanent program. The community solar permanent program will be handled in a separate proceeding over the summer and fall of 2021. Establishment of a permanent community solar program is anticipated in early 2022.

*Question 39. Please comment generally on whether the Board should consider maintaining the competitive solicitation for community solar projects in the Permanent Program, or if it should adopt strict qualifications and otherwise establish a first-come, first-served model (detailed as Option 1 and Option 2 on pages 40-41).*

**Comment:** Rate Counsel, Source Power Company, and the New Jersey Utility Scale Solar Association oppose changing the current program format and continue to support the use of competitive bidding. They comment that competitive markets and promotion of social and policy goals are not mutually exclusive.

ACE also comments that they prefer option one. Competitive processes allow the most meritorious projects to be selected and will result in projects which serve more low and moderate-income customers as well as meet other state policy objectives.

Soltage also supports the competitive model, commenting that there is an excess in the community solar space and that the ancillary community benefits of the community solar program are substantial and have been driven largely by the point-based competitive solicitation process.

**Response:** Staff thanks the commenters for their support of the competitive program, and invites them to participate in future discussions on the permanent community solar program.

**Comment:** Bluewave Solar, Nexamp, Vote Solar, SEIA, and NJSEC comment that they think a first-come, first-served model would work better than competitive solicitation. With this program, the Board should require projects to demonstrate site control, submit a deposit, and have submitted an interconnection application. There should also be a refundable deposit for the permanent program. Developers submitting projects should be required to demonstrate experience with community solar and LMI customers.

Similarly, MSSIA comments that a first-come, first-served model is likely best, if coupled with strict qualifications and quarterly caps.

CCSA also supports a first-come, first-served process with project maturity requirements, claiming that this approach is transparent and efficient and will avoid speculative activity or instability. CCSA advocates for clear requirements, meaningful security deposits, and project milestones to avoid a flood of underdeveloped projects.

**Response:** Staff thanks the commenters for their input, and invites them to participate in future discussions on the permanent community solar program.

*Question 40. Please comment on the [Community Solar] Pilot Program rules and discuss which, if any, the Board should consider modifying for the Permanent Program, and why.*

**Comments:** ACE comments that the regulations for the permanent program should be revised to permit electric distribution companies to develop, own, or operate community solar projects. Grandfathering of pilot programs should not be allowed as maintaining multiple programs is costly and inefficient. The new program should also exclude certain rate classes from eligibility; higher income classes have more access to solar and the purpose of the program is to give more access to LMI ratepayers. Customers participating in community solar should also not be able to participate in other solar programs because this would not satisfy the state's policy objectives and results in unnecessary subsidies. ACE's provision of compensation for subscribers' net excess credits as well as project operators' remaining generation credits is too difficult to implement effectively. Finally, banking project operators' credits is also too difficult to implement.

**Response:** Staff thanks the commenter for the suggestions, and invites them to participate in future discussions on the permanent community solar program.

**Comment:** MSSIA comments that there will need to be more policy initiatives aimed at increasing access to LMI subscribers and raising the percentage of LMI projects. These should include opt-out policies, policies to encourage municipal and other local government and quasi-governmental entities to contribute to and participate in subscriber acquisition, and possible direct state involvement.

**Response:** Staff thanks the commenter for their input, and invites them to participate in future discussions on the permanent community solar program.

**Comment:** Neighborhood Sun comments that the program should employ teams of Community Solar Ambassadors to educate residents on the program and its benefits; separate the consumer and solar developer web pages and create a portal strictly for solar developers to limit any consumer confusion; have utility providers include inserts in their billing to explain the program and highlight available projects within the territory when a resident reaches out to any of the NJ Home Energy Assistance programs for help with energy bills; and allow companies to provide information on community solar as another option to lower energy bills during home energy audits.

**Response:** Staff thanks the commenter for its input, and invites it to participate in future discussions on the permanent community solar program.

**Comment:** Nexamp comments that the Board should continue to improve the LMI income verification process by allowing for self-attestation of income; remove the current rule imposing a maximum of 250 customers per MW; establish clear standards for the data exchange between subscriber organizations and the EDCs; and establish a billing and crediting working group with subscriber organizations.

**Response:** Staff thanks the commenter for its input, and invites it to participate in future discussions on the permanent community solar program.

**Comment:** CCSA recommends using the final year of the pilot program to begin transitioning to the permanent program to allow for community solar organizations to adjust to stricter qualification and project maturity requirements. LMI verification processes should continue to be improved for LMI subscribers. The billing and crediting requirements should be modified to

eliminate the maximum-250-subscribers-per-MW rule, as this rule forces project owners to sign up large-usage subscribers and disfavors low and moderate-income subscribers. The best way to effectively address these concerns is through a robust developer portal. Streamlined processes for provider information should be implemented to create a regular forum for program challenges and questions. Incentive requirements and timelines should be addressed and clarified to align the timelines for community solar projects with the program rules.

Soltage generally echoes the comments made by CCSA.

**Response:** Staff thanks the commenters for their input, and invites them to participate in future discussions on the permanent community solar program.

**Comments:** Nexamp supports the recommendation that the Board establish a more robust Year 2 community solar registration path. Completion deadlines in years 1 and 2 are otherwise in conflict.

Similarly, CCSA comments that Year 2 projects may require a special application process for the TI program, since the program may have closed by the time certain projects are announced. The commenter believes the Board should also clarify that deadlines will be based on Board-established timelines for the community solar program rather than the 12-month deadline under current TREC and Successor rules.

**Response:** Staff thanks the commenters for their support and encourages their continued participation in the program rulemaking process. TI Program eligibility for Year 2 community solar projects is addressed in the TI Closure Order presented as a companion Order on this agenda: specifically, Staff recommends that Year 2 projects selected by the Board be eligible for the TI Program, even if their selection occurs after the close of the TI Program. Finally, Staff notes that the community solar program deadlines and the TI or SuSI Program deadlines are different: one refers to program-specific completion deadlines, the other to incentive-eligibility deadlines. However, Staff understands stakeholder requests to conform the two sets of deadlines to avoid inconsistency.

**Comment:** Source Power Company comments that the Board should maintain proof of participation in LIHEAP, Universal Service Fund, Comfort Partners, and the Lifeline Utility Assistance Program as a way to method for LMI income verification.

**Response:** Staff thanks the commenter for its input, and invites it to participate in future discussions on the permanent community solar program.

**Comment:** Sunwealth Power advocates for amending the definition of LMI projects in the permanent program to also support administrative costs via a “no-cost option,” which means that a subscriber who previously received \$100 of bill credits and paid \$80 to the Community Solar provider would now simply receive \$20 of bill credits at no cost. They believe that allowing projects that deliver 10% of all bill credits via a no-cost option would double savings to LMI households, avoid unnecessary confusion, and eliminate monthly billing costs.

**Response:** Staff thanks the commenter for its input, and invites it to participate in future discussions on the permanent community solar program.

**Comment:** Tattleaux Solar comments that it supports strict qualifications for community solar

projects and higher preference or scores for factors such as LMI composition, true community organization partnerships, discount levels to LMI subscribers, and other services and benefits to communities and LMI subscribers.

**Response:** Staff thanks the commenter for its input, and invites it to participate in future discussions on the permanent community solar program.

**Comment:** SEIA and NJSEC comment that the Board should continue to evaluate whether the current rules for LMI income verification are working and appropriate. The process would be improved by the use of self-attestation as a method of verification, subject to further refinement working with stakeholders. The Board should remove the 250 customers per megawatt maximum in the current program rules. The Board should also quickly implement a billing and crediting working group, made up of representatives from the EDCs, subscriber organizations, and Commission staff, to tackle implementation issues around the billing process on an ongoing basis.

**Response:** Staff thanks the commenters for their input, and invites them to participate in future discussions on the permanent community solar program.

**Comment:** Neighborhood Sun recommends that the Board allow residents with net metering the ability to also enroll in a community solar project. Many customers with rooftop solar do not receive full coverage from their arrays and including them in community solar pools would reduce load dependency on other generation types.

**Response:** Staff thanks the commenter for its input, and invites it to participate in future discussions on the permanent community solar program.

**Comment:** Vote Solar comments that the Board should define the term “community support” in conjunction with community partners. They also oppose the Board’s tightening of income verification processes during the community solar registration process for low-income ratepayers. Self-attestation is the best way to facilitate low-income participation in social and civic programs. The Board could also permit verification through a geographic qualification based on census or other relevant data.

**Response:** Staff thanks the commenter for its input, and invites it to participate in future discussions on the permanent community solar program.

**Comment:** Jeanne Fox comments that the community solar program should be kept as-is for at least a few more years.

**Response:** Staff thanks the commenter for her input, and invites her to participate in future discussions on the permanent community solar program.

*Question 41. Currently, community solar projects must be sited in a single location and are not permitted to include aggregated rooftops.*

*a. Should the Board consider revising this policy to allow aggregation of rooftop projects, up to the 5 MW capacity limit? Please comment on this general policy, and if you agree, what kind of limitations should the Board set with respect to the proximity of*

*the rooftops, site control or ownership, etc.*

*b. What should the Board consider with respect to the competing value of rooftop space, particularly on multi-unit residential and small commercial buildings, in locating HVAC or other equipment necessary for future energy efficiency and building decarbonization measures?*

**Comments:** Rate Counsel supports the use of a single location for solar installations as a qualification requirement for the Community Solar Program.

Tattleaux Solar notes that community solar projects should not be permitted to include aggregated rooftops.

ACE comments that the Board should only allow aggregation where rooftop projects share a common generation meter owned by the EDC. Virtual aggregation is difficult for their subscription and billing system.

Source Power comments that aggregated rooftops on one site, aggregated rooftops, and aggregated carports should be permitted.

SEIA, NJSEC, and the New Jersey Utility Scale Solar Association comment that the board should allow aggregation of rooftop projects up to the 5 MW limit without restriction other than that the rooftops all reside within the EDC's franchise territory.

CCSA comments that that aggregating rooftops to achieve higher net capacities should be allowed under the permanent program. Aggregated facilities can help reduce costs and open more total rooftops to participating in the program. Aggregated rooftops may be of interest to schools, colleges, government entities, housing authorities, or other community developments with multiple buildings.

**Response:** Staff thanks the commenters for their input, and will consider it in the upcoming proceedings to design the permanent community solar program.

### ***Implementing the Successor Program and Transitioning from the Transition Incentive Program***

This topic was covered by question 34 in the Straw Proposal.

General Note: This topic is further addressed in the TI Closure Order as a companion item on this Board Agenda.

*Question 34. Please comment on the Staff proposal that, following the close of this stakeholder process, the Board will issue an Order directing Staff to close the Transition Incentive Program within 30 days. After that 30-day period, the administratively set program will open immediately. The competitive solicitation is targeted to commence in the second half of 2021. Staff notes that there will be a seamless transition for residential, community solar, and net metered projects at 2 MW or less, but there will likely be a gap between the end of the TI Program and the start of the competitive solicitation that will affect large net metered and grid supply projects.*

**Comment:** CEP Renewables addresses the gap between the closure of the TI Program and the implementation of the competitive solicitation foreshadowed in question 34 of the Straw Proposal. Questioning the legal and policy basis of a delay, CEP asserts that the Board previously indicated that it would continue accepting applications into the TI Program until these could be accepted under the Successor Program. CEP cites to the Board's statement that the TI program "...will remain open to new registrations until the establishment of a registration program for the to-be-determined Successor Program." Board Order of January 8, 2020, Docket No QO19010068.

**Response:** Regarding the commenter's concerns over a gap between the closing of the TI Program and the opening of the Successor Program, Staff recommends that the Board find no basis for an argument for reliance on continued comprehensive service under the TI Program until the complete availability of the full Successor Program, including the competitive solicitation. As the Board stated in the January 8 Order quoted by the commenter, the key date in determining when the Transition Incentive Program may be closed is that on which a registration program for the Successor Program opens. This Order proposes to establish just such a registration program: for most solar project types, a new incentive program will go into place immediately upon the closure of the TI Program to new applicants. The fact that some resources that were eligible to participate in the TI Program are being moved to a competitive solicitation does not operate to create an absence in the availability of incentives. In fact, the transition to a competitive solicitation conducted on a less than continual basis will necessitate the unavailability of incentives during certain periods between solicitations. The Board sees no valid claims of detrimental reliance or other remedies premised on the availability or unavailability of incentives for a particular class of resources, whether because of the perceived gap claimed by the commenter, or because a developer invested at-risk capital in a project that may not immediately (or ever) be eligible to participate in the Successor Program, or may no longer be economic under the new Successor Program rules. In addition, the TI Program was explicitly designed to be a temporary program. Developers have been on notice for over a year that it would end upon the commencement of a registration program associated with the Successor Program.

**Comment:** ACE comments that the transition to a less costly incentive program as quickly as possible would reduce the cost burden on customers.

**Response:** Staff agrees that a swift transition is desirable.

**Comment:** The North Jersey District Water Supply comments that the Board should not limit the ADI Program to net metered projects that are 5 MW or less because this would cause non-residential net metered projects that exceed 5 MW to have no successor incentive until the competitive solicitation is finalized. This will result in project delays and uncertainty which could result in eventual failure of their project which falls into the "greater than 5 MW" category. The commenter also states that the Board should make the limit 5 MWdc rather than 5 MW in alternating current ("ac"), and there should be no reduction in incentive level for projects that are between 2 and 5 MW.

**Response:** Staff appreciates the commenter's position. As stated in the response to CEP Renewables on this topic, the Transition Incentive Program has served to bridge the gap between the SREC Program and a registration program for the Successor Incentive. Developers with net metered projects above 5 MW should participate in the further refinement of the framework for the new CSI Program. With respect to the capacity metric, the Board has

consistently used direct current as the standard metric for solar policy and the SRP and TI program manager's report on registration activity. A solar electric generation facility is most easily described and verified using the standard metric of kilowatt or megawatt dc. A developer, owner or program manager must simply determine the module rating in kilowatt dc and multiply the rating by the number of modules to arrive at the resulting system capacity. Alternatively, system facility ratings in alternating current are subject to the application of inverter loading ratios and other system design factors subject to modification or manipulation and a higher degree of verification.

**Comment:** The North Jersey District Water Supply further recommends that the Board consider extensions for the TI program, arguing that is unfair and unreasonable to require 12 months for all types of solar projects regardless of type and complexity. An 18-24 month period is more reasonable, and there is no guidance in any of the Board's proposals explaining why a 12-month timeframe is best or why there is no allocation for extensions. The commenter states that this is especially an issue because there are no established rules for the competitive process, so developers are essentially left stranded. Large projects such as theirs should be granted an automatic extension, considering the uncertainty around the transition.

**Response:** Staff refers the commenter to the Board's Order memorializing action taken on June 24, 2021 to provide a blanket extension of six months to all projects registered in the Transition Incentive Program prior to the effective date of the Order. The interim nature of the Transition Incentive Program is the basis for the Board's decision not to include an extension provision within the TI Program rules. Project types eligible for a one year TI Program term, i.e. net metered residential and non-residential, have been proven in the SREC Program to be capable of being completed in less than one year. Subsection (t) projects are eligible for a 24-month registration, and the Board has proposed amendments to the TI Program rules to grant community solar projects an 18-month registration.

**Comment:** Centrica Business Solutions notes that the proposal is reasonable, but the Board should focus more on ensuring projects that are currently under development in the TI Program are not stripped of incentives and forced into the Successor Program. The commenter is concerned that forcing projects already underway into the Successor Program will unduly delay those projects or force them to close due to insufficient funding. They understand that the TI Program was intended to be temporary, but the requirement to provide PTO puts too much control in the hands of EDCs and places substantial risk on projects which have been under development for long periods. The EDCs are historically very slow to provide PTO and work with developers and there will likely be a lot of systems reaching PTO at the same time. Centrica recommends mirroring the Massachusetts transition wherein the state used mechanical completion as the necessary requirement to ensure access into the TI Program, rather than PTO.

**Response:** Staff appreciates the comment and is sympathetic to concerns about projects currently registered in the TI Program not being able to reach PTO in time to meet their TI registration deadlines. Staff does not believe that it is the Board's intent to "force" projects currently registered in the TI Program into the Successor Program. In response to these concerns, the Board has already taken action to grant a six-month extension to all projects registered in the TI Program as of the effective date of the Board's June 24, 2021 Order. However, Staff also believes that the TI Program rules, including registration deadlines and project completion requirements, were known to project developers at the time that projects were registered into the TI Program, and that it is important that these rules be applied equally

and consistently. The Board has consistently used PTO as the metric for project completion triggering incentive eligibility, and Staff does not believe the transition from the TI Program is a sufficient reason to change this standard. Projects facing unanticipated delays that are outside their control may petition the Board seeking a further extension.

**Comment:** Ezenergy notes that, due to the COVID-19 pandemic, supply chains are strained or broken which makes completing solar projects within a 12-month timeframe difficult if not impossible without any extensions.

Prologis expresses concerns about delays in solar interconnection, and suggests that projects with TI registrations be “grandfathered” and be granted a two-year registration deadline to reach PTO.

**Response:** Staff recognizes that, particularly in light of the COVID-19 pandemic, there are situations where project delays have been outside the developers’ control, and points to the June 24, 2021 Board Order, which grants an across-the-board 6-month extension for all project that were in registered in the TI Program as of the effective date of the Order.

**Comment:** CEP Solar recommends projects in development be allowed to submit applications until at least the end of the calendar year. Similarly, EnterSolar suggests an extension to the TI Program so that the Successor Program would begin in Q3 or Q4 of 2021. The commenter states that this would help to avoid shock to the solar industry from an abrupt lowering of solar incentive values and ease concerns over less time dedicated to transitioning from the TI Program to the Successor Program than was dedicated to transitioning from the SREC Program to the TI Program. The TI Program rules should also be modified prior to the Successor Program to allow for larger net metered projects to apply for TRECs, which would help prevent shutting out a lot of projects.

**Response:** Staff appreciates the sentiment, but highlights the fact that the short-term nature of the TI Program and the intention to quickly end TI Program registrations have been made abundantly clear.

**Comment:** Independence Solar suggests that the new Successor Program should allow carport projects with existing TI Program registrations to receive up to two 6-month extensions for demonstrated, reasonable cause. This would allow those projects to retain their expected benefit from the TI Program and grant more time to finish projects which are difficult to complete in a 12-month timeframe. Additionally, the drop off from TI incentives to the lower incentives under the Successor Program may create a dangerous motivation to expedite project construction timelines in a risky manner to guarantee their TI incentives.

**Response:** Staff refers the commenter to its response to prior comments regarding extensions in the TI Program, and to the fact that developers registered projects into the TI Program with full awareness of that Program’s rules and deadlines. However, the Board has long expressed support for solar, and recognizes that the industry has experienced significant challenges over the past year. The Board has issued Orders granting blanket extensions for projects in the TI Program on two occasions, in July 2020 and June 2021. Finally, Staff strongly condemns the suggestion that developers might engage in risky construction practices for purposes of expediting completion, and warns developers that any such behavior or violation of codes and standards will not be tolerated.



**Comment:** NJRCEV comments that extensions should be granted for current landfill projects in the TI Program.

**Response:** On June 24, 2021, the Board granted a blanket extension to subsection (t) projects currently registered in the TI Program to the later of April 22, 2022 or the date of the expiration provided in the project's conditional registration acceptance letter, whichever is later. Additionally, Staff anticipates that the Board will address within the TI Closure Order on this agenda, the matter of subsection (t) applications that have been submitted by developers to the Board but have yet to receive a full review by the NJDEP or recommendation from Staff.

**Comments:** Greenskies requests the Board provide a direct transition to the Successor Program from the TI Program. Similarly, Mark Bellin on behalf of CEP suggests there should be no gap between the end of the TI Program and the start of the Successor Program. Bellin states that there was never a mention of a gap in prior discussions with stakeholders. Bellin welcomes the inclusion of a three-month addition to the TI Program closure date for subsection (t) projects after which the Board would entertain applications under an unannounced incentive value. Bellin believes the Board should keep the process open until applications can be made under the Successor Program by all participants.

The New Jersey Utility Scale Solar Association echoes these comments: they do not support creating a gap for utility-scale projects and think that all projects should be treated the same. NJUSSA finds it is arbitrary and inequitable to treat utility-scale projects differently and recommend that the TI Program remain open to new applications until the Successor Program is finally determined and capable of accepting applications.

True Green Capital states that the transition period should be seamless and transparent, like the closure of the SREC program, and suggests that 60 days to transition to the new Successor Program would be best in order to allow any project currently under development into the TI Program.

**Response:** The TI Program and the Successor Solar Incentive Program serve different purposes. As stated in response to other comments above, there will be no gap between the TI registration process and the SuSI registration. Staff has proposed an interim ADI Program market segment which would continue to serve subsection (t) projects until either the receipt of 75 MW of applications or three months from the anticipated roll out of the CSI program, whichever occurs earlier. Staff recommends that developers of grid supply projects participate in the development of the CSI program during the remainder of 2021 with the expectation of developing projects for participation in the competitive program early in 2022. In light of the ongoing stakeholder process and the fact that stakeholders have been on notice regarding the impending closure of the TI Program, Staff believes that 30 days' notice to finalize registrations for projects currently under development is sufficient.

**Comment:** AD Energy comments that crafting a durable Successor Program is necessary but not sufficient. There should be discussions regarding how to reduce overall solar costs which are segment-specific because some issues cut across multiple segments while others do not.

**Response:** Staff appreciates the comments in support of the Straw proposal. The Straw Proposal is limited in scope to issues surrounding the Board's solar incentive offerings. Staff agrees that solar cost reduction is a laudable goal and a topic worthy of continued attention. Staff points the commenter to the various proceedings underway at the Board such as the Grid

Modernization initiative, and encourages the commenter to contact Staff directly with ideas regarding cost-reduction initiatives not currently under consideration.

**Comment:** MSSIA includes the general comment that the Board should take more time to research MSSIA's and the broader industry's issues surrounding incentive levels.

**Response:** Staff reminds the commenter of the significant effort undertaken with stakeholders toward the development of the SuSI Program and refers the commenter to the sections of this Order which describe the stakeholder process undertaken, including the development of the Capstone Report and associated incentive modeling which form the basis of Staff's Straw Proposal.

**Comment:** Prologis comments that the Board should delay the implementation of the Successor Program by three to six months from the date of the Board Order, in order to give developers an opportunity to finalize projects and obtain all necessary approvals for projects to move forward. The commenter specifically states that the typical development cycles for a solar project is twelve months or longer.

**Response:** Staff does not agree that it is necessary to provide more than 30 days' notice of the closure of the TI Program. In addition to the fact that the short-term nature of the TI Program has been well communicated to market participants, 30 days provides sufficient time for developers to finalize paperwork for any project that is ready to register. The significant rise in TI Program registrations in recent months, particularly in June 2021, has shown that developers are already hurrying to finish registrations for any project currently under development in order to benefit from the higher-value TREC incentives. Projects that do not yet exist or are not ready to register should not be eligible for the TI Program, but rather should take part in the Successor Program.

**Comments:** Tattleaux Solar comments that they generally agree with the Successor Program implementation plan. The plan should also include increased incentives for residential, community solar, and smaller net metered projects. Higher incentives encourage equity and better market distribution of projects.

**Response:** Staff thanks the commenter for its support, and refers the commenter to the comments and responses regarding proposed incentive levels.

**Comment:** SEIA and NJSEC generally support the thoughtful approach to transitioning and the administratively determined incentive for residential net metered projects and non-residential net metered projects which are 5 MW or less which will immediately be able to register for the administratively determined incentive. The commenters note that, if the Board limits the administratively determined incentive program to projects that are 5 MW or less, projects which exceed that limit will have no incentive until the competitive solicitation is finalized. They encourage the Board to broaden the proposed temporary administratively determined program beyond projects on contaminated lands to include large net metered projects.

**Response:** Staff thanks the commenters for their support. While Staff has recommended an interim opportunity for projects on contaminated sites previously eligible pursuant to Subsection (t), Staff believes that large-scale net metered non-residential projects will be able to wait until the implementation of the competitive solicitation. In Staff's view, there are factors unique to project development on contaminated lands that warrant an interim incentive that are not

present with large net metered facilities. This includes factors such as the relatively high up-front development spend necessary to conduct site investigation and remediation of contaminated lands, the need to potentially take title to contaminated sites, and the long timeline for development of contaminated lands projects. While there are certainly challenges associated with large non-residential net metered facilities, they do not typically involve any of these complications. Instead, the relatively shorter timeline for development makes large non-residential net metered facilities suitable for the CSI Program, which is anticipated to open later this year, with first awards issued in early/mid-2022.

### **Cost Cap Calculation**

This topic was covered by questions 30 through 33 in the Straw Proposal.

General Comments on the Cost Cap:

**Comment:** Rate Counsel comments that, without any modifications, the annual rate cap spend allowance ranges between \$700 and \$900 million in any given year. Rate Counsel believes this to be a very generous allowance, and that this kind of spending should be adequate to meet clean energy goals.

**Response:** Staff agrees that \$700 to \$900 million is a significant contribution to the State's clean energy goals. Throughout this proceeding, Staff has placed great importance on energy affordability, and on ensuring that solar incentives are reasonable in light of both the State's clean energy goals and ratepayer impacts. However, Staff points out that the majority of the costs covered by the Cost Cap are the result of commitments that the Board has made dating back as far as 2004. When the Board first established the solar provisions within the RPS in 2004, the solar alternative compliance payment ("SACP") level was \$300 per MW-hour. At that time, solar installation costs frequently exceeded \$10 per watt and the time period required to recover an investment based on SREC revenues was determined to be 15 years. In 2007, in order to transition the incentive program away from rebates to full reliance on performance-based SRECs and reach aggressive goals set at 2.12% by 2020, the Board increased the SACP to \$711 per MW-hour. As solar installation costs and SACPs declined over time, the legislature more than doubled the State's solar goals expressed in the RPS. In order to reach 5% solar electricity generation in the State, a target which is among the highest in the nation, a long term commitment of incentives to solar investments has been necessary. Based on modeling of the Cost Cap and a continued commitment to reducing incentive values over time, Staff believes that it will be possible to honor the commitments the Board has made to solar investments in the past while motivating sufficient new solar investments to reach the State's aggressive goals.

**Comment:** The NJCF and NRDC in their joint comments interpret the Straw Proposal as prioritizing the State's long-term solar targets within the Cost Cap, including by reducing the statutory RPS requirements if necessary. Their modeling suggests that the amount of renewable energy required to be purchased by LSEs as part of the RPS would need to be reduced by about 50% from 2023 to 2030, effectively canceling the higher RPS requirements in the CEA. Additionally, the commenters express concern about some of the assumptions used in the Cost Cap modeling tool published as appendix to the Straw Proposal, believing these assumptions to be incorrect or unrealistic. The commenters state that a reduction in the RPS would have unacceptable environmental impacts and would dampen regional renewable energy

growth. Furthermore, the NJCF and NRDC believe that the CEA's requirement that the Board "take any steps necessary to prevent the exceedance of the cap on the cost to customers including, but not limited to, adjusting the Class I renewable energy requirements", means: (i) compliance with the specified RPS targets, (ii) the required modifications to the SREC program, including the design and implementation of a successor program and (iii) the limitation in the cost of the specified Class I renewable resources. They urge the Board to aggressively explore other steps that would prevent reduction of the RPS and inform the legislature of barriers to effectively address the climate crisis.

**Response:** Staff appreciates the commenter's recommendations and strives to present a proposal which balances the choices for the Board to fulfill the goals of the CEA and Solar Act of 2021. Staff's modeling of the Cost Cap, based on forecasted SREC, TREC and NJ SREC-II expenditures, shows sufficient headroom for additional investment in new solar as well as NJ Class I REC procurement until at least 2025. However, should the expenditures of the Cost Cap-Applicable Programs risk breaching the Cost Cap, the Board will be required to make choices as to where to allocate available funds. Staff recommends that the Board state that, should it need to make a choice between providing incentives to new solar capacity or maintaining the RPS, that it choose to prioritize the RPS.

Additionally, Staff agrees that SREC costs are a major cost factor of the Class I RPS Program, and that market-based SREC prices are notoriously difficult to predict. That said, Staff has recommended increasing its estimate of SREC prices to bring them more in line with where SRECs are currently trading. As the commenter notes, this will result in a more conservative modeling of the Cost Cap.

**Comment:** Rate Counsel comments that the Straw Proposal suggests cumulative "banking" of surpluses and "borrowing" from future years' budgets without restriction. Rate Counsel notes that this is inconsistent with the CEA because the legislative amendments specify periods where "banking" is allowed, and do not allow for borrowing. Rate Counsel therefore strongly object to the use of carry-over as proposed.

**Response:** Staff agrees with the commenter that banking and carry-over of headroom is only permitted between EY19 and EY24 and that unlimited "borrowing" outside this period is contrary to the spirit of the Cost Cap legislation. As explained in the proposed Cost Cap rules, there is often significant lag between when budgets are allocated under the SuSI Program and when the Board receives final consumption data, including the total electricity cost to consumers in a given year. Thus, there is a possibility that Staff's forecast of spending could inadvertently result in breaching the Cost Cap. However, the proposed rules would require that the Board reduce, on a dollar-for-dollar basis, any spending in a past energy year which exceeded the Cost Cap, in the next available energy year for which ADI Program targets have not been established. This should address commenter's concern and ensure that any excess expenditures are immediately trued-up against actuals.

*Question 30. Staff proposes to include the total amount of expenditures by electricity customers on annual retail bills and the costs associated with all net metered and other solar projects – whether host owned or third-party owned – when calculating the denominator of the Cost Cap, as to accurately reflect the total amount of money paid by New Jersey customers for electricity (see details beginning on page 24 for details).*

*a. Do you agree with Staff's proposed categories for inclusion? Should any category be*

*omitted? Has Staff overlooked a category that should be included?*

*b. Please comment on the sources of information, calculations, and assumptions underlying the categories.*

**Comment:** Tattleaux Solar states that discounts provided to solar off-takers and subscribers should be factored into either the numerator or the denominator. The Successor Program should provide or allocate higher incentives to projects with higher discounts.

**Response:** Staff appreciates the commenter's perspective but strives to keep the Cost Cap methodology, including a calculation of the total cost of electricity paid by retail customers, as simple as possible. Specifically, Staff believes that competition should drive developers to provide customers with the highest possible discounts, and does not believe that the Board's incentives should be tailored to different business models or product offerings.

**Comment:** The NJCF and NRDC do not believe that private costs of purchasing net metered equipment should be included the denominator. The commenters believe that the inclusion of these costs cannot be sustained as a matter of law or policy, since these are not costs for electricity but costs for home or business improvements and capital equipment.

**Response:** Staff appreciates the commenter's perspective, but does not agree that solar investments are simply real property improvements unrelated to the cost of electricity borne by the state's retail ratepayers. Instead, these are investments made for the purpose of generating electricity and are reasonably considered part of the "total paid for electricity by all customers in the State," which is what the Cost Cap requires the Board to calculate. Leaving these costs out of the Cost Cap equation would, in Staff's view, understate the total cost of supplying electricity to New Jersey customers.

**Comment:** SEIA and NJSEC state that the denominator in the Straw Proposal calculation does not include co-generation costs from currently operating facilities in New Jersey, solar PPA costs or other host-owned costs, and that these should be added to the denominator of the calculation.

Gabel Associates proposes that the denominator should contain all "paid for electricity" including customer payments to the four utilities and third-party suppliers, as well as customer payments to other generations sources such as on-site, net metered solar, and on-site, behind-the-meter cogeneration. Gabel Associates believes the Straw Proposal incorrectly assumes that full solar PPA costs and cogeneration costs are included in the referenced EIA 861M data. Gabel Associates believes that host owned costs should be \$250,000/MW per year for ten years.

EDF Renewables echoes the comments made by Gabel Associates.

**Response:** Staff does not recommend that CHP costs be separately included in the calculation of the Cost Cap, as the EIA data typically includes CHP facilities of over 1 MW in their cost estimates based on data from Form EIA-860. The sales associated with smaller facilities are included in Schedule 3B, and thus are already included in the total sales data. In the Straw Proposal, Staff recommended that the denominator include an estimate of the costs associated with net metered solar projects that are host-owned, amortized over their expected life. Staff maintains that recommendation.

*Question 31. Please consider the benefits and consequences of using the moving three-year average of annual electricity demand versus annual amounts in calculating and forecasting the annual Cost Cap percentage.*

**Comment:** Rate Counsel comments that a true-up mechanism at the end of each energy year is essential to assure compliance with the Cost Cap. The CEA specifies actual costs; not estimates or forecasts. There should be a process to review compliance with the Cost Cap and adjust budgeted expenditures.

**Response:** Staff agrees with Rate Counsel that an annual true-up of the Cost Cap calculation is necessary and the proposed Cost Cap rules require Staff to produce both a forecast and then a true-up to that forecast when the data becomes available. The use of a forecast is unavoidable given the forward-looking purpose of the mandate and the lag in availability of relevant cost data. Staff recommends the use of moving average of reported retail electricity costs from the Energy Information Agency to form a more accurate basis for a forecast of retail electricity costs for use in the denominator of the Cost Cap formula. Staff proposes to use annual actuals in true-ups, contingent on data availability, and then will account for any over-spending on a dollar-for-dollar basis in the next energy year for which ADI Program megawatt targets have not yet been established.

**Comment:** SEIA and NJSEC comment that the use of a three-year moving average of annual electricity demand will dampen any rapid changes in the Cost Cap calculation. Annual calculations will drive further instability, so a three-year calculation is preferred, and will positively impact job losses. However, if the Board reconsidered the adjustments to the Cost Cap recommended by the commenter, there would be no need to consider this demand calculation option.

**Response:** Staff appreciates the commenter's support of the proposal.

*Question 32. For the purposes of forecasting future electric costs to estimate the Cost Cap in later years, Staff proposes using a 0.5% growth factor based on consumption patterns, presumptive expenditures for future and continued clean energy incentives, such as energy efficiency programs, ORECs, and ZECs, as well as increased demand due to vehicle electrification in particular, and cost declines due to increasing energy efficiency. Please comment on Staff's assumptions.*

**Comment:** EDF Renewables notes that there is a significant amount of new demand in the State because of rapid electrification of transportation, new data centers in-state, and cultivation of cannabis. There will be an unprecedented surge in the need for electricity in the next few years and to meet goals for cost-effectiveness and greenhouse gas emissions, it will have to be renewable and carbon-free.

**Response:** Staff is cognizant of factors that would lead to increased demand for electricity, but believes that the State's aggressive goals for energy efficiency and demand response which the commenter has not acknowledged will have a counterbalancing effect to those cited.

**Comment:** Gabel Associates, and SEIA and NJSEC propose that the Board use Nominal Energy Price Escalation per the EIA Annual Energy Outlook 2021 Reference Case as well as a

2% increase in load, which would lead to a higher forecast of future electricity costs.

**Response:** Staff believes that projections for statewide retail electricity prices are a more appropriate input to the Cost Cap calculation than a national energy price escalation forecast that is more heavily influenced by fossil fuel prices.

**Comment:** NJRCEV states that the TREC and Successor Program will be recovered in EDC rate charges, and must be explicitly added to the total paid for electricity. The Board should also consider including the future costs of ORECs and ZECs, as well as future expected incentive payments to solar.

SEIA and NJSEC also believe that Successor Program costs and ORECs be included in the denominator.

**Response:** ORECs have been separately included into the forecasts of the denominator. Other clean energy costs are considered to be included in the 0.5% escalator.

**Comment:** The NJRCEV comments that the growth rate should reflect changes in both price and volume. The commenter recommends a growth assumption of 2.5% to energy rates.

**Response:** Staff believes that a 0.5% escalation to the three-year moving average of retail electricity costs provides a sufficiently accurate forecast of costs anticipated in the immediate future, and prefers to use a more conservative assumption for purposes of forecasting.

**Comment:** SEIA and NJSEC note there is great variability in Cost Cap calculations which can arise from varying assumptions. It is virtually impossible to make assumptions which will ultimately prove to become entirely accurate. A 0.5% growth factor may be reasonable to apply, but such layered assumptions could easily flip to a much higher growth rate, especially with increased use of electricity in the transportation sector.

**Response:** Staff agrees that the variability in the assumptions makes the Cost Cap calculation and forecasting a challenge. The purpose behind using a three-year moving average of electricity costs with a conservative 0.5% growth factor is to dampen this variability. The annual forecasting and true-up process is similarly designed to reduce the negative effects of this variability on the market.

**Comment:** Mike Winka comments that, if the Board includes benefits in the Cost Cap calculation, it must also include the costs of increasing electric rates. The Successor Program in a true net cost/benefit analysis requires that all factors of the Successor Program be considered. The increase in electric rates/costs will also result in job loss and economic downturn.

**Response:** The forecast of future retail electricity costs has been updated to include the costs of ORECs; other clean energy programs are represented within the overall 0.5% growth factor. However, the Cost Cap methodology proposed by Staff attempts to include only the direct monetary impacts from NJ Class I renewable electricity generation.

*Question 33. Staff proposes to include the following elements in calculating the numerator of the Cost Cap to reflect the cost of incentives paid by ratepayers: the annual costs of SRECs,*

*TRECs, and Class I RECs, minus the DRIPE benefits of solar (see section beginning on page 29 for details).*

*a. Do you agree with Staff's proposed categories for inclusion? Should any category be omitted? Has Staff overlooked a category that should be included?*

*b. Please comment on the calculations and assumptions underlying each of the components of the Cost Cap.*

**Comment:** Rate Counsel notes that the Straw Proposal does not follow the CEA and converts the CEA's rate cap into a "cost-benefit" or "net benefits" test through the use of DRIPE and potentially the social costs of carbon as an offset. Rate Counsel estimates that the benefits of this calculation method would average \$110 million per year. Deducting any benefits from the numerator constitutes impropriety, since fairness would demand that all other costs of solar would be included (they are not in the Proposal). Rate Counsel also states that the legislature did not specify the inclusion of benefits in the language pertaining to the Class I Cost Cap, whereas it did include economic and environmental factors in the language around energy efficiency and peak demand reduction, indicating a clear intent for benefits to not be included in the calculation of the Cost Cap for Class I renewables. Further, Rate Counsel expresses strong opposition to potentially including environmental benefits in the numerator; they are not included in the CEA, the value of these benefits is widely varied, and the size of the offsets would make the Cost Cap meaningless. They further comment that the costs of pollution mitigation are already largely included in regional energy processes. Finally, Rate Counsel notes that common sense dictates that benefits cannot be included, since this would result in ratepayers paying for all benefits plus an additional 7-9% of total electricity expenditures.

NRDC and NJCF echo Rate Counsel's comments and see a significant risk of litigation around the inclusion of DRIPE, or any other benefits in the numerator.

**Response:** Staff appreciates the commenters' position. The newly enacted Solar Act of 2021 explicitly directs the Board to include consideration of energy and environmental benefits in the calculation of the Cost Cap. Staff believes that the inclusion of these benefits will enable long-term development of solar in the future, and recognizes the benefits provided by clean energy resources. Staff emphasizes that the Cost Cap is a cap on expenditures; the use of benefits to arrive at net costs for purposes of calculating the Cost Cap will not result in a direct increase in solar expenditures as implied by the commenters.

**Comment:** SEIA and NJSEC believe that Staff should have used the Aurora or a similar simulation model to create the DRIPE calculation in the numerator. The commenters believe that Staff's modeling understates the DRIPE impacts by a factor of eight.

Gabel Associates states that energy DRIPE calculations in the Cost Cap calculator are based on a value which is extremely low, the basis of which has not been provided or explained. As an alternative, Gabel Associates recommends that DRIPE be analyzed using a multi-variant regression model using historical PJM data relevant to New Jersey's actual electric market prices.

NJRCEV also believe that the Aurora model should be used for dispatch modeling to accurately capture DRIPE estimates.



MSSIA comments that DRIPE should be calculated according to an average of the methodologies of Gabel Associates and Clean Power Research, considering the social costs of greenhouse gasses and pollutants in compliance with A4606, hedge value, security value, post-incentive value of continued operations, economic growth value, and others as studied by Clean Power Research.

**Response:** Staff has considered the use of the dispatch modeling software for calculating DRIPE benefits as suggested by the commenters and may elect to do so in the future. However, Staff continues to believe that its source for DRIPE values was explained in detail in the Straw Proposal, with a clear explanation of the academic resources Staff proposes to use.

**Comment:** Princeton University comments that, to the extent solar PV displaces peak demand, reduction of these capacity charges (DRIPE) could be taken into account as a benefit.

**Response:** Staff appreciates the comments in support of the Straw Proposal.

**Comments:** Rate Counsel, as well as NJCF and NRDC, comment that DRIPE effects must decline over time as the PJM market adjusts. NJCF and NRDC have estimated this decline at 12% per year. They further see two problems with the DRIPE estimate: first, the historical simple regression of price on load overestimates the effect of load because it ignores multiple factors. Second, they disagree with an assumption of independence from capacity market prices. Both of these issues inflate the estimate in relation to the likely reality.

**Response:** Staff agrees that the Cost Cap formula warrants utilization of a conservative estimate of the demand reduction benefits exhibited in wholesale energy and capacity prices from ratepayer investments in NJ Class I resources. The energy-related factor employed by Staff to arrive at wholesale energy cost reductions based on forecasted renewable electricity production were not the product of a regression run by Staff but were derived from a review of relevant literature. The capacity-related factor employed by Staff to arrive at wholesale demand cost reductions were based on the factor utilized in EDC energy efficiency filings which were approved by the Board. Staff anticipates revisiting this methodology as warranted during the proposed one year review.

**Comment:** EDF Renewables quotes analysis performed by the Rocky Mountain Institute, specifically their estimate that a “Clean Energy Portfolio” would save consumers \$29 billion and avoid 100 million tons of CO2 output. In light of this assessment, EDF Renewables states that it is hard to justify constraining the growth of the solar industry by limiting private investment in solar as prices continue to decline with obvious benefits to all ratepayers. EDF Renewables believes that these benefits must be a consideration in the Cost Cap calculation to protect ratepayers.

**Response:** Staff notes that the recent Solar Act of 2021 directs Staff to include environmental benefits, including the social cost of carbon, in its calculation of the Cost Cap. RMI’s characterization of a “Clean Energy Portfolio” includes a breadth of technologies and programs beyond solar that include at a minimum energy efficiency, demand response, geothermal, wind, and energy storage resources. While the benefits of New Jersey’s RPS program will be factored into the Cost Cap calculation, Staff reminds commenter that the Cost Cap is a Cap – and Staff does not recommend spending more on the solar program than is prudent, given a variety of other factors and competing clean energy interests in New Jersey.

**Comment:** Gabel Associates proposes changes to the calculation of applicable costs, and states that the numerator should include: cost of Class I RECs; cost of SRECs; cost of TRECs; cost of Successor RECs; DRIPE/Merit Order from solar; DRIPE/Merit Order from Class I resources; direct customer savings from solar; Hedge benefit. Gabel Associates states that the financial risk and volatility of electric markets is diminished through decreased exposure to floating market prices. The SREC requirements should be based on retail load and annual SREC percentage obligations; Class I REC requirements should be updated to reflect 48.8%, and OSW. The cost of Successor RECs should be updated to reflect the recommended incentive levels. Direct customer savings for net metered projects should be included as detailed in the Cost Cap Tool Excel file.

**Response:** Staff generally agree on the breadth of cost and benefits that should be included in the Cost Cap calculation. Staff have endeavored to include costs and benefits that are tangible and readily calculated or estimated, and has sought to employ a conservative approach. The hedge benefit of renewable energy investments is not a direct monetary benefit that accrues to ratepayers from their investment in NJ Class I resources, and there exists no widely-accepted means to calculate or estimate the monetary value of this benefit and thus does not include these benefits in its recommended Cost Cap calculation.

**Comment:** SEIA and NJSEC, KDC, NJRCEV, and Jeanne Fox advocate for offsetting costs with benefits, including the social costs of carbon, economic benefits, and health benefits of solar, stating that the Board has considered these attributes in other proceedings. NJRCEV states that the Board should rely on the EPA's social cost of carbon referenced in the Proposal to determine the monetary value of carbon emissions reductions.

**Response:** Staff acknowledges the environmental benefits contributed by solar investments in the state. Since the direct inclusion of these benefits in the Solar Act of 2021, Staff has modified its initial recommendation, and now proposes to include CO<sub>2</sub> emission reduction benefits, based on the social cost of carbon developed by the federal government.

**Comment:** Mike Winka comments that the Cost Cap calculation should be based only on the straightforward calculation of the cost for Class I renewables and the customer's cost of electricity in that energy year. The CEA is clear that the Board may not expand on the Cost Cap interpretation noted in the statute. If the Board chooses to include the non-energy benefits in the Cost Cap calculation, the Board should initiate a full proceeding to determine the value of solar and the costs of the solar successor program before making that recommendation.

**Response:** Staff appreciates the commenter's position and agrees that the Cost Cap calculation should be straightforward and easy to implement. In light of the statutory language of the Cost Cap and the full stakeholder process undertaken as part of this proceeding, Staff does not believe that a full value of solar proceeding is required at this time. The Solar Act of 2021 has changed Staff's recommendation regarding the inclusion of environmental benefits.

*c. How should the Board consider the assumed annual value of SRECs, which is not fixed?*

**Comment:** SEIA and NJSEC comment that the Board should consider the value of the SREC market based upon their adoption of the Market Balancing Mechanism as has been advanced by the industry.

**Response:** The proposal for a Market Balancing Mechanism by some market participants has not advanced to a stage that can be addressed in this proceeding. There are many counterparties to SREC trades that are not likely to have seen or provided input on this proposal.

**Comment:** The NJCF and NRDC call rapid convergence of SREC prices to 75% of the SACP “optimistic.”

**Response:** Staff anticipates that the 75% figure is an average result that would occur over a multi-year period. The price of SRECs in the near term is high due to the statutory requirement to exempt BGS load that was under contract at the time of passage of the CEA from the increase in SREC obligations, and to carry that obligation over to future years. The effective SREC percentage obligations will revert to those established in the CEA starting in Energy Year 2024, and Staff anticipates that SREC prices would begin to decline at that time. However, in the interest of selecting conservative estimates, Staff has revised its SREC assumption to 85% of the SACP.

### ***Solar 4 All Program***

Support for PSE&G’s Solar 4 All program was raised by several commenters, but was not discussed by Staff in the Straw Proposal, nor was it a topic in the stakeholder meetings.

**Comments:** PSE&G urges the Board to consider the Solar 4 All program as a model for utilities developing, owning, and operating large grid supply projects. PSE&G claims that the program has been critical to installing solar on underdeveloped lands throughout New Jersey, and that adopting a similar model as part of the Successor Program would encourage productive use of otherwise unproductive lands like landfills and brownfields.

Several townships and municipalities commented solely to express support for the adoption of a program similar to the Solar 4 All program or an expansion of the existing program. They cite a need for expanded solar in the State and credit the Solar 4 All program for expanding townships’ solar development. The municipalities were: Caldwell, Deptford, Edison, Highland Park, Pennsauken, and Trenton.

Developers such as ALM Electric, Also Energy, Kinsley Landfill, Lighton Industries, Power Edison, and New Jersey Energy Coalition also support the Solar 4 All program.

NGOs Alliance For Action, Hackensack Riverkeeper, and NJ Environmental Lobby also express support for the Solar 4 All program, stating that it provides an alternative for sites which would otherwise sit undeveloped and impose an ecological burden on communities.

Other companies which voiced their support for the Solar 4 All program are: Riggs Distler Company, Spooky Brook Landscaping, and Vineland Construction.

**Response:** Staff appreciates the comments. While agreeing that all avenues to expand access should be explored, Staff notes that the Solar4All program has historically been one of the more costly and riskiest programs for ratepayers, because it involves substituting ratepayer

capital for private investment and allowing utilities to earn on the capital. Further, there does not appear to be any lack of private capital investing in the solar market, which was, in part, the basis for allowing the original Solar4All program. Therefore, Staff has recommended not allowing ratepayer-funded solar projects at this time.

***Bonus Question on Naming the new Incentives***

This topic was covered by question 42 in the Straw Proposal.

*Question 42. Staff is seeking feedback on its proposal to call the Successor Renewable Energy Certificate a “UREC” to differentiate it from the Solar Renewable Energy Certificate (SREC) and the Transition Renewable Energy Certificate (TREC). In the alternative, please provide additional acronyms or program names for consideration.*

**Comments:** ACE and Tattleaux Solar asked for an explanation of the “U” and whether it would create confusion.

Solar Landscape stated that the Board should designate the incentive as UREC, for “Ultimate”.

CCSA suggested the names “Value-based REC” or VREC, “Next REC” or NREC, and SREC2 / SRECI.

Joint SEIA – NJSEC suggested SREC II or JREC (for Jersey REC).

The NJ Utility Scale Solar Association suggested “SREC-II,” which is the name used in recently enacted solar legislation.

**Response:** Staff thanks all commenters for their helpful suggestions and, pursuant to the designation used in the Solar Act of 2021, recommends that the new incentive be named “SREC-II.” Staff also recommends that the new programs be named the Successor Solar Incentive (“SuSI”) Program, which will include the Administratively-Determined Incentive (“ADI”) Program and the Competitive Solar Incentive (“CSI”) Program.

**APPENDIX B: Summary of Initial Incentive Levels and Megawatt Blocks**

<b>Market Segment</b>	<b>Size</b> (Measured in MW)	<b>Recommended Incentive Value</b> (\$/SREC-II)	<b>Recommended Incentive Value for Public Entities</b> (\$/SREC-II)	<b>Recommended MW Blocks EY 2022</b>
Net Metered Residential	All types and sizes	\$90	N/A	150 MW
Small Net Metered Non-Residential, Rooftop, Carport, Canopy and Floating Solar	All projects smaller than 1 MW	\$100	\$120	150 MW (4 segments)
Large Net Metered Non-Residential, Rooftop, Carport, Canopy and Floating Solar	Projects 1 MW to 5 MW	\$90	\$110	
Small Ground Mount Net Metered Non-Residential	Projects smaller than 1 MW	\$85	\$105	
Large Ground Mount Net Metered Non-Residential	Projects 1 MW to 5 MW	\$80	\$100	
Community Solar Non-LMI	Up to the 5 MW statutory limit	\$70	N/A	150 MW (2 segments)
Community Solar LMI	Up to the 5 MW statutory limit	\$90	N/A	
Interim -subsection (t)	All types and sizes	\$100	N/A	75 MW

**APPENDIX C: Estimates of Cost Cap and Applicable Incentive Costs EY 2019 – 2022**

Note: This calculation represents a conservative estimate. However, since the Cost Cap is not projected to force Board action even under this conservative scenario, any modifications to the calculations increasing the head room would not have any impact on the implementation of the ADI Program.

Energy Year	Numerator Costs				Numerator Benefits			Numerator: Total Net Costs	Denominator
	SRECs (\$) <sup>1</sup>	TRECs (\$) <sup>2</sup>	Non-Solar Class I RECs (\$)	SREC- IIs (\$) <sup>3</sup>	Energy DRIPE (\$)	Capacity DRIPE (\$)	CO <sub>2</sub> Emissions Reduction Benefits <sup>4</sup> (\$)	(costs minus benefits) (\$)	(includes adjustments) (\$)
2019	597,056,015	0	79,254,419	0	2,039,429	75,106,798	269,083,759	330,080,448	10,126,800,000
2020	718,628,584	500,883	89,997,891	0	2,270,128	83,602,841	254,173,521	469,080,868	9,686,600,000
2021 (estimate)	806,533,890	6,803,976	144,606,487	0	2,467,666	90,877,643	287,663,019	576,936,025	10,151,700,000
2022 (forecast)	815,970,829	52,977,815	137,123,069	0	2,779,944	102,378,013	289,101,334	611,812,421	10,040,472,000

Energy Year	Annual Cost Cap Calculation (%)	Annual Cost Cap Limit		Annual Head Room available EY19 – EY24	Annual Head Room with Carry Over (EY19 – EY24)
	((Numerator / Denominator) * 100) (%)	% of total paid for electricity	Cost cap limit (\$)	(cost cap limit minus annual total net costs) (\$)	(\$)
2019	3.26%	9%	911,412,000	581,331,552	581,331,552
2020	4.84%	9%	871,794,000	402,713,132	984,044,684
2021 (estimate)	5.68%	9%	913,653,000	336,716,975	1,320,761,659
2022 (forecast)	6.09%	7%	702,833,000	91,020,579	1,411,782,238

Notes:

1. Actual SREC and NJ Class I REC costs in gray are actuals from the NJCEP RPS compliance reports.
2. All TREC costs are currently estimates based on scheduled rate recovery from the EDCs.

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3. NJ SREC-II costs are for the ADI Program only. The costs of the first program year (EY22) will be recovered from ratepayers in EY23, and therefore does not appear as a cost to ratepayers in EY22.
4. Assumes \$53/ton CO<sub>2</sub>.