Agenda Date: 4/23/25
Agenda Item: 8E

STATE OF NEW JERSEY

Board of Public Utilities
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Trenton, New Jersey 08625-0350
www.nj.gov/bpu/

CLEAN ENERGY

IN THE MATTER OF THE COMPETITIVE SOLAR INCENTIVE ("CSI") PROGRAM PURSUANT TO P.L. 2021, C. 169	)	PRICE CAP DETERMINATION FOR THE THIRD SOLICITATION OF THE CSI PROGRAM
	)	DOCKET NO. QO21101186

Party of Record:

Brian O. Lipman, Esq., Director, New Jersey Division of Rate Counsel

BY THE BOARD:

By Order dated December 7, 2022, the New Jersey Board of Public Utilities ("Board") established the Competitive Solar Incentive ("CSI") Program.[1] The CSI Program is open to qualifying grid supply solar facilities and non-residential net metered solar facilities with a capacity greater than five (5) megawatts ("MW"), as well as to eligible grid supply solar facilities in combination with storage. Through this Order, the Board sets the third solicitation of the CSI Program to open for pre-qualification on May 14, 2025, and close to bids on July 23, 2025, at 11:59:59 p.m. EST. The Board also establishes confidential price caps for each tranche in which projects will compete during the third solicitation, and details adjustments to the solicitation and registration processes, project maturity requirements, and tranches to promote participation and success in the third CSI solicitation.

BACKGROUND

On June 9, 2021, Governor Murphy signed into law the Solar Act of 2021 ("Solar Act" or "Act").[2] The Act directed the Board to establish a program to incent the development of 3,750 MW of new solar power generation by 2026, through the mechanism of Solar Renewable Energy Certificates ("SREC-IIs").[3] SREC-IIs represent the value of the environmental attributes of electricity

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[1] In re Competitive Solar Incentive ("CSI") Program Pursuant to P.L. 2021, c.169 - Order Launching the CSI Program, BPU Docket No. QO21101186, Order dated December 7, 2022 ("CSI Order").

[2] L. 2021, c. 169.

[3] This target reflects both New Jersey's 2019 Energy Master Plan and Governor Murphy's goal of achieving 100% clean energy by 2035. See 2019 New Jersey Energy Master Plan: Pathway to 2050, nj.gov, https://nj.gov/emp/docs/pdf/2020_NJBPU_EMP.pdf

produced by the solar electric power generation facility. The Act directed the Board to create both a solar facilities program for smaller projects, with administratively set incentive values, and a competitive solicitation process for awarding contracts to grid supply solar facilities and net metered solar facilities greater than five (5) MW.

By Order dated July 28, 2021, the Board launched the Successor Solar Incentive ("SuSI") Program.[4] The SuSI Program is divided into two (2) components: the Administratively Determined Incentive ("ADI") Program and the CSI Program.[5] Both the ADI and CSI Programs provide one (1) SREC-II for each megawatt-hour ("MWh") of solar electricity produced from a qualifying facility.

The ADI Program, opened to new registrants on August 28, 2021, offers a fixed SREC-II incentive for net metered residential facilities, net metered non-residential facilities of five (5) MW or less, and community solar facilities. Incentive values are set administratively, following comprehensive modeling of costs and multiple rounds of stakeholder involvement.

By the CSI Order, the Board established the CSI Program, to fulfill the statutory requirement for a competitive procurement program within the SuSI Program umbrella. Rules establishing the CSI Program and addressing accompanying siting criteria were approved by the Board on December 7, 2022, for publication in the New Jersey Register at 55 N.J.R. 127(a) on February 6, 2023, for a sixty (60)-day comment period. A notice of correction was issued on March 20, 2023, at 55 N.J.R. 523(a). The public comment period closed for the notice of proposal on April 7, 2023, and for the notice of correction on May 19, 2023. On November 17, 2023, the Board adopted the rule amendments with non-substantial changes, which were published in the New Jersey Register at 55 N.J.R. 2555(a) on December 18, 2023. At the same agenda meeting, the Board approved proposed substantial changes upon adoption to the SuSI Program rules. The proposed substantial changes were also published on December 18, 2023, for a sixty (60)-day comment period in the New Jersey Register at 55 N.J.R. 2461(a). The resulting Notice of Adoption of Proposed Substantial Changes was not filed before the eighteen (18)-month expiration date and the proposal expired on August 6, 2024. On September 4, 2024, the Board approved two (2) re-proposed amendments to the SuSI Program rules, including additions allowing for revisions to the confidential price cap based on an updated assessment of market conditions, Board discretion in awarding competitive bids above the confidential price caps, and the adjustment of megawatt targets allocated per tranche. The rule proposal was published in the New Jersey Register on October 7, 2024, at 56 N.J.R. 1951(a) for a sixty (60)-day comment period. On December 18, 2024, the Board adopted the rule amendments for publication in the New Jersey Register at 57 N.J.R. 200(b) on January 21, 2025.

[4] In re a Solar Successor Incentive Program Pursuant to P.L. 2018, c.17, BPU Docket No. QO20020184, Order dated July 28, 2021.

[5] Ibid.

The CSI Program covers qualifying grid supply solar facilities – those selling into the wholesale markets – and net metered non-residential facilities greater than five (5) MW in size. The CSI Program awards SREC-IIs through a competitive solicitation with five (5) separate market categories, or tranches:

Tranche 1: Basic Grid Supply
Tranche 2: Grid Supply on the Built Environment
Tranche 3: Grid Supply on Contaminated Sites and Landfills[6]
Tranche 4: Net Metered Non-residential Projects above five (5) MW
Tranche 5: Energy Storage Paired with Grid Supply Solar

The first solicitation of the CSI Program opened for pre-qualification on February 1, 2023, and closed to bid submissions on March 31, 2023. During the pre-qualification period, projects provided evidence that they met maturity requirements and specific tranche eligibility criteria; applications were administratively reviewed by the solicitation manager. Pre-qualified CSI projects then submitted a bid for an SREC-II award in their tranche, specified in dollars per MWh ("$/MWh") of solar electricity production; the solicitation manager subsequently evaluated projects exclusively on bid price.

The Solar Act provided the Board the ability to establish confidential, pre-determined price caps for any or all tranches prior to the solicitation to protect ratepayers against excessive bids.[7] By Board Order dated March 6, 2023, the Board established confidential price caps for each tranche for the first CSI Program solicitation.[8] Board Staff ("Staff") and consultant Daymark Energy Advisors ("Daymark") conducted incentive modeling to determine appropriate price caps, utilizing 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").

By Board Order dated July 12, 2023, the Board declined to make any awards in the first solicitation as all SREC-II bids exceeded the price caps.[9] In the same Order, the Board directed Staff to perform an in-depth analysis of the specific financial assumptions and external factors that were used to determine the price caps. The results of that analysis would inform any necessary price cap adjustments prior to the next solicitation. The Board directed the next solicitation to open on an expedited timeline.

The second solicitation opened for pre-qualification on November 27, 2023, and closed to bids on February 29, 2024. The total procurement target for the second solicitation was set at 300 MW of solar generation and 160 MWh of energy storage paired with solar generation; the MW procurement targets per tranche, listed below, were consistent with the first solicitation.

[6] A "contaminated site and landfill" means (1) any currently contaminated portion of a property on which industrial or commercial operations were conducted and a discharge occurred, and its associated disturbed areas, where "discharge" means the same as the term is defined in section 23 of P.L.1993, c.139 (C.58:10B-1); or (2) a properly closed sanitary landfill facility and its associated disturbed areas. N.J.S.A. 48:3-51.

[7] N.J.S.A. 48:3-117(d).

[8] In re Competitive Solar Incentive ("CSI") Program Pursuant to P.L. 2021, c. 169, Order Addressing Price Cap Determination, BPU Docket No. QO21101186, Order dated March 6, 2023.

[9] In re Competitive Solar Incentive ("CSI") Program Pursuant to P.L. 2021, c. 169, Order on the Outcome of the 2023 CSI Program Solicitation, BPU Docket No. QO21101186, Order dated July 12, 2023.

Tranche	Target (MW)
1. Basic Grid Supply	140
2. Grid Supply on the Built Environment	80
3. Grid Supply on Contaminated Sites & Landfills	40
4. Net Metered Non-residential above 5 MW	40
TOTAL	**300**
5. Energy Storage Paired with Grid Supply Solar	160 MWh

The Board received fourteen (14) submissions totaling 374.34 MW of solar generation capacity. Nine (9) projects totaling 339.96 MW were submitted in Tranche 1 (Basic Grid Supply), and five (5) projects totaling 34.38 MW were submitted in Tranche 3 (Contaminated Sites and Landfills). One (1) Tranche 1 project and one (1) Tranche 3 project also submitted bids for energy storage paired with solar electric generation in Tranche 5, totaling ninety-two (92) MWh.

The CSI Program rules at N.J.A.C. 14:8-11.10 lay out the selection process for successful bids. The awards are to be made through the last project that does not exceed the procurement target for the given tranche; however, the Board may exercise its discretion in deciding whether to exceed the target if, in the Board's judgment, the incremental project or projects will benefit New Jersey. Pursuant to N.J.S.A. 48:3-117(f)(3), the Board may also exercise its authority to adjust the number of MW awarded in a tranche in response to bid prices above or below any pre-determined price caps.

No bids were submitted in Tranche 2 (Grid Supply on the Built Environment) or Tranche 4 (Net Metered Projects >five (5) MW). By Order dated April 17, 2024, the Board reallocated 80 MW from Tranche 2 and 40 MW from Tranche 4 to Tranche 1.[10] The Board similarly reallocated the remaining 24.6 MW of unawarded capacity in Tranche 3 to Tranche 1, for a sum of 284.6 MW capacity in Tranche 1. The Board determined that these reallocations would further the solar generation goals of the State and enhance the success of the solicitation by increasing the amount of competitively priced solar to be developed at a lower cost to ratepayers. In addition, the Board determined to award a project in Tranche 1 that resulted in total procurement in excess of the solicitation target of 300 MW, because the relatively low cost of the additional MWs made the award in the best interest of the State and the ratepayers. In total, the Board awarded 310.2 MW of solar generation (294.83 MW in Tranche 1 and 15.388 MW in Tranche 3) and eighty (80) MWh of energy storage paired with solar generation in the second solicitation of the CSI Program.

By the April 17 Order, the Board also directed Staff to perform an evaluation of factors that contributed to low competition in Tranches 2 and 4, and to make any recommendations on tranche adjustments, including capacity allocation or the creation of new tranches, before the next solicitation in the CSI Program.

Staff and Daymark performed an analysis of potential obstacles to participation in the CSI Program with input from stakeholders through informal survey responses and a formal stakeholder session held on September 17, 2024, for which the public comment period closed on September 24, 2024. Staff received seven (7) comments from industry groups, developers, and the New Jersey Division of Rate Counsel; comments are summarized in Appendix A to this Order.

[10] In re the Competitive Solar Incentive ("CSI") Program Pursuant to P.L. 2021, c. 169 - Order on the Outcome of the Second Solicitation in the CSI Program, BPU Docket No. QO21101186, Order dated April 17, 2024 ("April 17 Order").

On December 2, 2024, Staff released an additional Notice of Request for Information ("RFI") prior to the third solicitation, seeking stakeholder input on specific adjustments to tranches and project timelines. Staff received two (2) comments, from a developer NJR Clean Energy Ventures III Corporation and the New Jersey Division of Rate Counsel; these comments are summarized in Appendix B to this Order.

Based on extensive stakeholder engagement on barriers to participation and an analysis of obstacles in the second solicitation of the CSI Program, Staff recommends the following changes to the CSI Program for the third solicitation. These changes are intended to promote participation of a diverse array of solar generation projects towards meeting New Jersey's ambitious renewable energy goals.

CSI Program Solicitation and Registration Processes

In responses to the informal survey and at the stakeholder meeting, Staff received several stakeholder comments requesting that the Board institute a consistent solicitation window and allow the solicitation administrator to provide guidance on applications during the solicitation window. Staff agrees with the commenters that a regular, annual solicitation and award schedule announced in advance would provide consistency to developers and allow them adequate time to prepare applications. Staff recommends that the Board establish and maintain a consistent pre-qualification window for all CSI solicitations, opening in mid-February and closing mid-April, with awards announced before the end of the energy year. Staff recommends that the pre-qualification window for the third solicitation open to bids on May 14, 2025 and close on July 23, 2025. Staff recommends that during the solicitation window, the solicitation administrator be available to meet with applicants who submit a pre-qualification application, to answer clarifying questions and ensure full understanding of the application components. In particular, Staff believes there is a need for clarity around understanding the energy storage adder calculation, as well as on the expected process for Tranche 3 projects following the receipt of an award.

Tranche-specific Considerations and Capacity Allocation

In the second CSI solicitation, no projects submitted a bid in either Tranche 2 (Grid Supply on the Built Environment) or Tranche 4 (Net Metered Non-Residential Projects greater than five (5) MW). Daymark's analysis and stakeholder feedback suggest several possible reasons why no bids were received in either tranche in the second solicitation.

Built Environment sites eligible for participation in Tranche 2 are defined at N.J.A.C. 14:8-1.2 as "the surface of one or more existing, serviceable structures or serviceable, improved and impervious roadways built for a substantial purpose other than to facilitate solar development." Stakeholder feedback suggested that the lack of interest in Tranche 2 was due to competition from the Community Solar Energy Program ("CSEP") for available sites on the built environment, such as rooftops, carports and canopies. The CSEP offers a higher effective subsidy for built environment projects without the interconnection delays experienced by grid supply projects navigating the PJM interconnection process. However, CSEP projects are restricted in both capacity [five (5) MW maximum] and siting type. Staff considers that expanding the siting types eligible for Tranche 2 may offer an avenue for projects that have comparable costs to Built Environment sites or that are not eligible in other Board programs. Three (3) site types in particular should be considered for inclusion in Tranche 2 beginning in the third CSI Program solicitation. First, Staff recommends that the Board include open land classified as "Industrial and Commercial Complexes" in the modified Anderson classification system, which is incorporated within the most recent Land Use/Land Cover Geographic Information System ("GIS") data layer

produced by the New Jersey Department of Environmental Protection ("NJDEP").[11] Staff considers that projects sited on this land-use type may have comparable installation costs to other Built Environment sites but would not be eligible for CSEP. Second, Staff recommends that the Board also include lands classified as "extractive mining" sites in the modified Anderson classification system, which includes stone quarries, gravel, sand and clay pits. These sites are characterized by disturbed ground, usually with depth, extractive machinery, buildings and roads for and with heavy equipment. While not considered part of the built environment, these sites do have disturbed or degraded areas where the installation of solar facilities would provide a positive environmental impact, at a cost greater than that of Tranche 1 projects. Such sites have also been proposed for inclusion in CSEP rule amendments.[12] Finally, Staff considers that floating solar generation projects, currently allowed to participate in Tranche 1 of the CSI Program as basic grid supply projects, would more appropriately compete on a cost basis with built environment sites.[13] Staff recommends that the Board expand Tranche 2 to allow open land in industrial and commercial complexes, extractive mining sites and floating solar projects to compete with sites that meet the definition of Built Environment.

Tranche 4 is open to large net metered non-residential projects with a capacity greater than five (5) MW. Staff considers that there may be a limited number of net metered projects of the appropriate size to compete in this tranche, as many net metered customers do not have the on-site load to support a system generating more than five (5) MW. Additionally, the financial uncertainty associated with the competitive bid structure of the CSI Program may be less attractive to developers when compared to other Board programs. The ADI Program, which provides fixed incentives to both residential and non-residential net metered projects up to five (5) MW, offers an annual capacity block of 200 MW for all non-residential projects. In this program, non-residential ground mount projects greater than one (1) MW and up to five (5) MW receive an SREC-II of $85/MWh, while projects greater than one (1) MW and up to five (5) MW sited on rooftops, carports, canopies or as floating solar receive at least $100/MWh. Finally, the ADI Program offers rolling registration that allows developers to participate as they are ready, rather than waiting for the next CSI solicitation cycle for a new project or to rebid. To enable a project to participate in this less risky incentive program, developers may decrease their net-metered project size to less than five (5) MW. Staff recommends that the Board decrease the capacity allotted to Tranche 4 in the upcoming solicitation to account for the likelihood that net metering projects will instead seek incentivization through the ADI Program.

[11] Land Use/Land Cover of New Jersey 2020, NJ Dept. of Environmental Protection Bureau of GIS, Published November 1, 2024; Updated December 3, 2024. https://njogis-newjersey.opendata.arcgis.com/datasets/2deaaa3cadd94166bdbff92a44ade284_13/explore

[12] 56 N.J.R. 1948(a).

[13] The Board defines water bodies eligible to host floating solar as "bodies of water that have little to no established floral and faunal resources . . ., such as water treatment reservoirs and dredge ponds." In re the Community Solar Energy Program, Order Launching the Community Solar Energy Program, BPU Docket No. QO22030153, Order dated August 16, 2023.

Staff considers that it is necessary to make the above adjustments to Tranches 2 and 4 for the third CSI Program solicitation to encourage participation and competition by recognizing the market context in which the CSI Program operates. Staff recommends that the capacity target for the solicitation remains at 300 MW, but that for the reasons discussed above the allocation of capacity per tranche be modified as follows:

Tranche	**Target (MW)**
1. Basic Grid Supply	150
2. Grid Supply on the Built Environment	80
3. Grid Supply on Contaminated Sites & Landfills	55
4. Net Metered Non-residential above 5 MW	15
TOTAL	**300**
5. Energy Storage Paired with Grid Supply Solar	160 MWh

The Board has a longstanding policy prioritizing solar generation sited on land uses that are not optimal for other development, such as warehouse rooftops or remediated contaminated sites, and away from New Jersey's important open spaces. Staff recommends that in allocating capacity for the third solicitation, the Board demonstrate the continued prioritization of these siting types by maintaining eighty (80) MW of capacity in Tranche 2 (Grid Supply on the Built Environment) and adding fifteen (15) MW to Tranche 3 (Grid Supply on Contaminated Sites and Landfills) as compared to the previous solicitations.

Staff recommends no changes to the Tranche 5 allocation for energy storage paired with a grid supply generation project in Tranche 1, 2 or 3; storage bids will continue to be considered normalized to four (4) hours of energy storage capacity.

Project Maturity Requirements

The CSI Program requires that projects must provide evidence of sufficient maturity to pre-qualify for bid submission. In the second CSI Program solicitation, participants provided a completed Feasibility Study from PJM Interconnection, LLC ("PJM") as evidence of project maturity, demonstrating the ability to meet the commercial operation date ("COD") within 36 months of receiving an award, with one six (6)-month extension available.[14] In June 2022, PJM began a public filing with the Federal Energy Regulatory Commission ("FERC") at FERC Docket No. ER22-2110 to reform its interconnection process.[15] PJM interconnection reform includes a transition from a first-come, first served serial study process, in which the Feasibility Study was the first stage, to a first-ready, first-studied project cluster approach that begins with a Phase 1 System Impact Study ("SIS"). PJM's reform has also divided projects seeking interconnection into three groups: those qualified for an Expedited Process, Transition Cycle 1 ("TC1") projects, and Transition Cycle 2 ("TC2") projects. [16] Projects in the Expedited Process, which were evaluated under the serial study process, are expected to complete the interconnection process in early 2025. Projects seeking to participate in TC2 submitted applications including evidence of

[14] N.J.A.C. 14:8-11.5(i).

[15] PJM Interconnection, LLC, 181 FERC ¶ 61,162 (2022), order denying reh'g, 182 FERC ¶ 62,055 (2023).

[16] No New Jersey solar projects were identified in the TC1 group. https://www.pjm.com/planning/service-requests/serial-service-request-status

site control and both Study and Readiness deposits by December 17, 2024.[17] In the PJM timeline, Phase 1 SIS evaluation for accepted TC2 project applications begins in early 2025; during the Phase 1 evaluation and up until Decision Point 1, ninety percent (90%) of the Study deposit and fifty (50%) of the Readiness deposit are refundable.[18] TC2 projects are not expected to receive interconnection approval until November 2026. This timeline for TC2 projects may present a significant hurdle to reaching COD before the thirty-six (36)-month deadline of the CSI Program.

In response to Staff questions asked at the September 17 stakeholder session about PJM interconnection barriers and maturity requirements for CSI projects, stakeholders commented that delays in the PJM interconnection timeline and associated interconnection costs pose significant barriers to participation and project completion. The industry groups New Jersey Solar Energy Coalition ("NJSEC") and Solar Energy Industries Association ("SEIA") suggested that the thirty-six (36)-month COD should start when a project received an interconnection agreement, rather than from the time of registration. CS Energy and NJSEC/SEIA were in favor of a security deposit or escrow payment that demonstrates financial commitment to a project as an alternative to the PJM queue position.

Staff also received stakeholder feedback to a December 2, 2024, RFI that requested stakeholder feedback on whether TC2 projects may be permitted to participate in the third solicitation and what accommodations, if any, these projects may need in order to reach commercial operation. The two commenters who responded both opposed allowing TC2 projects to participate. NJR Clean Energy Ventures suggested that this allowance would risk displacing more advanced projects and New Jersey Division of Rate Counsel objected to weakening maturity requirements, stating that a PJM queue position represented a neutral, objective and independent way to evaluate project maturity.

Staff considers that aspects of the reformed interconnection process do not align with the project maturity requirements used in previous CSI solicitations. Staff recommends that a completed Phase 1 System Impact Study replace the completed Feasibility Study as the accepted maturity marker from PJM; projects evaluated using a Feasibility Study, such as those projects in the Expedited Process, may still use it as a maturity marker. This would maintain the neutral evaluation of project maturity from PJM.

Staff and Daymark evaluated the capacity of solar and solar + storage projects in the three categories of the PJM queue: Expedited Process, TC1, and TC2. Staff recognizes that offering the opportunity for increased competition by including TC2 projects in the third solicitation may result in SREC-II awards that represent a lower cost for ratepayers. However, awarding less mature projects shifts the risk assumed in a competitive solicitation from the project developer onto the ratepayer, and Staff agrees with the commenters that displacing more mature projects from the competition would not serve the State's energy goals. In addition, Staff believes that the refundable nature of both the Readiness and Study deposits required for projects to participate in the PJM queue means that these monetary commitments do not serve as an appropriate proxy for project maturity. However, Staff considers that a completed Phase I System Impact Study would serve as a similar maturity marker to the Feasibility Study. As noted above, the interconnection timeline for TC2 projects may pose an obstacle to project completion within the CSI Program timeline, but this obstacle will not definitively bar these projects from timely

[17] PJM Manual 14H, Effective Date 7/26/2023. The required Study Deposit ranges from $75,000 to $400,000, depending on the size of the solar project, and the Readiness Deposit #1 is set at $4,000/MW.

[18] PJM Manual 14H, Effective Date 07/26/2023: 76.

completion. Thus, Staff recommends that the Board authorize TC2 projects that have completed the Phase I SIS to participate in the third solicitation of the CSI Program.

Incentive Modeling and Price Caps

The competitive solicitation structure of the CSI Program aims to ensure that projects are awarded at the lowest cost to New Jersey ratepayers, with incentive values reflective of current market conditions and suitable to provide a long-term, guaranteed incentive for developer investment. Price caps based on current market conditions serve as a protective mechanism against non-competitive or excessive bids and would generally be set at a level that exceeds expected competitive bids.

To inform the third CSI Program solicitation, Daymark used NREL's SAM software to model incentives for each tranche using updated technical and financial assumptions including interest rates and rates of return, capacity and energy revenue expectations, and installation costs.

Daymark reported the following principal assumptions:

- Installation and system component cost data for solar generation and solar generation projects with energy storage reflecting decreasing costs nationwide through 2024.
- High variability in capacity market prices in the PJM Base Residual Auction.
- Current federal tax credit value for clean energy investments is thirty percent (30%).
- Updated DC/AC ratio and interest rates.
- Feedback from stakeholders on uncertainties in interconnection costs and timelines.

Staff recommends that for the third CSI Program solicitation, the Board use its authority pursuant to N.J.S.A. 48:3-117(d) and rules adopted at N.J.A.C. 14:8-11.10(j) to establish confidential, pre-determined price caps for all tranches, based on an assessment of the market conditions listed above. Staff continues to recommend that the price caps set be confidential, in keeping with the competitive structure of the solicitation and the statutory mandate to develop a transparent, fair and competitive process. Staff considers that disclosure of price caps would reduce the likelihood of competitive pricing and threaten the State's interest in keeping the cost of solar as low as possible for ratepayers.

Staff further recommends that as in previous solicitations, the price caps differentiate among and be specific to the five (5) tranches in the CSI Program. Staff recognizes that the different project types per tranche carry different costs and revenue expectations and seeks to balance these with ratepayer protections. First, the Tranche 2 price cap must account for the recommendations in this Order that projects sited on additional land types may participate in Tranche 2. Staff considered increased leasing costs for built environment sites and the cost differentials reported for floating solar project installation, and recommends that the Board set the price cap for these projects thirty-five (35%) higher than Tranche 1 projects.[19] Second, Staff acknowledges that projects sited on Contaminated Sites and Landfills that are eligible to participate in Tranche 3 face additional costs to prepare a site for solar development compared to Tranche 1 projects. These costs may include site remediation measures, proper landfill closure, post-closure maintenance and/or permitting. On September 4, 2024, Governor Murphy signed legislation to support the

[19] Ramasamy, Vignesh and Robert Margolis. 2021. Floating Photovoltaic System Cost Benchmark: Q1 2021 Installations on Artificial Water Bodies. Golden, CO: National Renewable Energy Laboratory. NREL/TP-7A40-80695. https://www.nrel.gov/docs/fy22osti/80695.pdf.

closure of landfills for solar development through a tax credit available to eligible projects.[20] This program, administered through the New Jersey Economic Development Authority, represents a new tool towards the effective use of otherwise marginalized lands as sites for energy infrastructure. This support will not yet be available at the time of the third CSI Program solicitation; thus, Staff recommends that the Board continue to prioritize its long-standing siting preference for Tranche 3-eligible sites and set the price cap for these projects fifty-five percent (55%) higher than Tranche 1 projects.

As in previous CSI Program solicitations, Staff recommends that the price cap for public entity projects participating in Tranche 4 be set $20 higher than the price cap for other projects in this tranche, in line with the Public Entity adder offered to participants in the ADI Program. Consistent with the ADI Program, Public Entity is defined as a customer that is a State entity, school district, county, county agency, county authority, municipality, municipal agency, municipal authority, New Jersey public college, or New Jersey public university.[21]

In considering the price cap for Tranche 5, energy storage paired with grid supply solar generation, Staff's recommendation was informed by the critical assumption that as of December 2024, the cost of purchasing and installing energy storage systems had been decreasing. Compared to the second solicitation, costs of lithium-ion batteries, which are most commonly used for standalone energy storage systems or photovoltaic (PV) energy storage systems, have decreased.[22,23] As of mid-January 2025, it was unclear whether this trend would continue. The nascence of the large-scale energy storage industry offers significant opportunities for innovation and continued scalability; the Board's price caps are reflective of these opportunities and also external factors that impact the competitive market for both solar and energy storage systems.

Staff's price cap recommendations were also based on critical assumptions around the federal Investment Tax Credit ("ITC") for clean energy projects. The ITC value used for the calculation of price caps for this solicitation was thirty percent (30%) to reflect the current federal tax credit value. Projects installed after December 31, 2024 will no longer be eligible for the ITC; however, they will instead be eligible for the Clean Electricity Investment Credit which also offers a thirty percent (30%) tax credit for facilities that meet prevailing wage and registered apprenticeship requirements.[24] Staff recommends that the Board evaluate the Clean Electricity Investment Credit value, amongst other parameters, at end of this solicitation window and incorporate changes into the updated assessment of parameters that inform whether the price cap values have remained reflective of a competitive market.

Participants in the CSI Program are required to pay a $1,000/MW bid participation fee designed to protect against speculative projects. Following the first solicitation in which no awards were made, the Board waived the bid fee for developers who submitted a substantially similar project

[20] P.L. 2024, c.61.

[21] In re Solar Successor Incentive Program Pursuant to P.L. 2018, c.17, BPU Docket No. QO20020184, Order dated July 28, 2021.

[22] Cole, Wesley and Akash Karmakar. 2023. Cost Projections for Utility-Scale Battery Storage: 2023 Update. Golden, CO: National Renewable Energy Laboratory. NREL/TP-6A40-85332. https://www.nrel.gov/docs/fy23osti/85332.pdf

[23] Seel, Joachim, et al. "Utility-Scale Solar, 2024 Edition: Empirical Trends in Deployment, Technology, Cost, Performance, PPA Pricing, and Value in the United States." (2024). https://doi.org/10.2172/2467433

[24] Clean Electricity Investment Credit | Internal Revenue Service

to the second solicitation. A project was considered substantially similar if its footprint overlapped the first project's footprint. As the Board made awards in the second CSI Program solicitation and filled the target capacity, Staff does not consider that the waiver of the bid participation fee payment should be extended into the third solicitation.

Finally, Staff notes that amendments to the CSI Rules approved for publication by the Board on December 18, 2024, and published to the New Jersey Register on January 21, 2025 at 57 N.J.R. 200(b) allow the Board the discretion to do the following: revise confidential price caps by Board Order, based on an updated assessment of relevant parameters including cost of capital, revenue expectations, and net installation and operational costs as specified in the Board Order establishing the caps; elect to award bids that do not exceed the price caps by more than ten percent (10%); adjust the number of MWs awarded in any tranche, if bid prices are above or below any confidential price caps established for the solicitation; and/or reject bids above the confidential price caps, where the Board determines that the bid prices are not competitive and/or are not fiscally responsible, regardless of whether the targeted number of MW in that tranche or tranches have been met. While Staff has utilized the best available data to inform the confidential price caps proposed for the third solicitation of the CSI Program, the market is currently experiencing more-than-usual volatility. Therefore, Staff recommends that the Board utilize its discretion to evaluate and, if warranted, make adjustments to any confidential price caps before the close of the solicitation window, so that bid evaluation may proceed supported by the most up-to-date economic data.

DISCUSSION AND FINDINGS

In the second solicitation of the CSI Program, the Board received a robust response from bidders and awarded 310.21 MW of solar generation capacity and eighty (80) MWh of energy storage paired with solar generation to eight (8) projects that competed in Tranches 1, 3 and 5. However, Tranches 2 and 4 received insufficient bids to reach the number of MWs allocated in either tranche; the Board directed Staff to evaluate factors that may have contributed to low competition in these tranches and make any recommendations adjusting tranches before the next CSI Program solicitation. As detailed above, Staff conducted outreach to stakeholders and worked with Daymark to analyze the relevant data. The Board **FINDS** that in developing the recommendations for tranche adjustments in the upcoming third solicitation, Staff has satisfied the requirement for evaluation and has provided stakeholders with the opportunity to comment.

After reviewing the record and Staff's recommendation, the Board **FINDS** that a consistent solicitation schedule would provide developers with the best opportunity to prepare competitive projects in a timely manner. The Board **DIRECTS** the pre-qualification window for all future CSI Program solicitations to open in mid-February and close to bids in mid-April, with specific dates determined in the solicitation year. The Board also **DIRECTS** that the third solicitation in the CSI Program open to pre-qualification applications on May 14, 2025, and close to bids on July 23, 2025. For those applicants who submit a pre-qualification application, the Board **FINDS** that the CSI Program solicitation administrator should be available to meet with these applicants to ensure a full understanding of the application components.

Staff has recommended capacity allocations that reflect the prioritization of solar development sited on land that is not optimal for other development, including rooftops in Tranche 2 and remediated contaminated sites or properly closed sanitary landfills in Tranche 3. The Board **APPROVES** the capacity allocations recommended by Staff to these tranches. However, the Board is aware that participation in Tranche 2 has not occurred to date. The Board recognizes that the costs associated with leasing and interconnecting sites that qualify as the Built

Environment constitute a significant obstacle to participation in Tranche 2, and that developers may choose to enter the Board's CSEP as a means to avoid delays associated with the PJM interconnection process and to obtain a fixed incentive. Tranche 2 may be more attractive for large-scale solar development on siting types that may not otherwise be eligible in other Board programs, that have cost profiles that better match the CSI incentives, or both. The Board **FINDS** that expanding Tranche 2 to include such additional siting types will provide opportunities for such projects while simultaneously increasing the likelihood of competition in this tranche. The Board **ORDERS** that Tranche 2 be opened to projects sited on open land classified as "Industrial and Commercial Complexes" or "Extractive Mining" as defined in the modified Anderson classification system and incorporated into the NJDEP's most recent Land Use/Land Cover GIS data. In addition, the Board **FINDS** that floating solar projects, which are currently able to compete in Tranche 1 as basic grid supply, are more comparable in cost to projects sited on the built environment. The Board **ORDERS** that floating solar projects be eligible to compete in Tranche 2 in future CSI Program solicitations, beginning with the third solicitation.

Similarly, there has been low participation in Tranche 4. The Board recognizes that statewide, there are a small number of competitive net metered non-residential projects greater than five (5) MW available to compete in this tranche, while that net metered non-residential projects less than five (5) MW have ample opportunity to participate in the ADI Program. The Board **FINDS** that a decrease in the allocated Tranche 4 capacity from forty (40) MW to fifteen (15) MW maintains sufficient capacity for large net metered projects to participate in this tranche, while also allowing for increased capacity in other tranches that are more likely to receive bids for this capacity.

The Board **APPROVES** the total solicitation target of 300 MW solar generation and 160 MWh of energy storage paired with grid supply solar generation.

The Board acknowledges that the interconnection process for grid supply projects through PJM continues to present a significant obstacle to CSI Program participants, both in terms of cost and time to commercial operation. Recent reforms to the interconnection process have begun to provide an avenue forward for many solar and solar + storage projects in New Jersey. The Board **FINDS** that changing the CSI Program prequalification requirement to allow for a completed "Phase 1 System Impact Study" to be used as an alternative to a completed "Feasibility Study" as the accepted maturity marker from PJM aligns the CSI Program with the ongoing reform efforts. Taking into consideration the stakeholder input received following the second solicitation that suggests maintaining consistent maturity requirements for projects, the Board **FINDS** that TC2 projects without a completed Phase 1 SIS have not demonstrated suitable maturity to participate in the third CSI Program solicitation. The Board **FURTHER FINDS** that TC2 projects that have a completed Phase I SIS have achieved the suitable maturity and may participate.

The Board anticipates that, just as the second CSI Program solicitation received more competitive bids than the first solicitation, competition among solar development projects will continue to arise organically and SREC-II prices will reflect this competition without over-incentivizing the solar market as a whole. However, the Board considers that tranche-specific price caps remain an important protection for ratepayers against excessive bid prices. The Board **FINDS** that a lack of competition in one (1) or more tranches may produce excessively high bids. Therefore, the Board **FINDS** that the establishment of tranche-specific price caps in the third CSI Program solicitation remains necessary to protect ratepayers against excessive bid prices.

In accordance with the Solar Act of 2021, the Board seeks to use tranche-specific price caps to "promote fiscal responsibility for the State and the likelihood of successful bids." N.J.S.A. 48:3-117(d). The Board **FINDS** that the conclusions in the report prepared by Daymark are reasonable

and demonstrate consideration of market forces impacting solar project planning and potential bids. The Board **HEREBY APPROVES** the confidential price caps recommended by Staff and **ORDERS** these confidential price caps to be applied in the third CSI Solicitation. The Board **FINDS** that the caps must be confidential in order to fulfill their function of keeping the cost of the solicitation as low as practical. In full consideration of short-term market changes that may occur over the course of the third solicitation, the Board **ORDERS** that Staff perform an updated evaluation of price caps before the close of the third CSI solicitation window. If the results of this evaluation indicate that one (1) or more of the confidential price caps set here should be revised, the Board will act in accordance with the CSI Program rules at N.J.A.C. 14:8-11.10(j). Finally, the Board **FINDS** that the $1,000/MW bid participation fee shall be reinstated for all participants in the third CSI Program solicitation regardless of prior participation in a solicitation.

The effective date of this Order is April 30, 2025.

DATED: April 23, 2025

BOARD OF PUBLIC UTILITIES
BY:

CHRISTINE GUHL-SADOVY
PRESIDENT

MARIAN ABDOU
COMMISSIONER

MICHAEL BANGE
COMMISSIONER

ATTEST:

SHERRI L. LEWIS
BOARD SECRETARY

I HEREBY CERTIFY that the within document is a true copy of the original in the files of the Board of Public Utilities.

FINAL VOTE ON AGENDA ITEM 8E, APRIL 23, 2025

Commissioner Christodoulou		No
Commissioner Bange	Yes	
Commissioner Abdou	Yes	
President Guhl-Sadovy	Yes	

IN THE MATTER OF THE COMPETITIVE SOLAR INCENTIVE ("CSI") PROGRAM PURSUANT TO P.L. 2021, C. 169 – PRICE CAP DETERMINATION FOR THE THIRD SOLICITATION OF THE CSI PROGRAM

DOCKET NO. QO21101186

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