



**Docket No. QO21101186, IN THE MATTER OF COMPETITIVE SOLAR INCENTIVE (“CSI”) PROGRAM
PURSUANT TO P.L. 2021, C. 169**

The Joint Solar and Storage Parties Comments

June 20, 2022

I. Executive Summary

The Solar Energy Industries Association (SEIA), New Jersey Solar Energy Coalition (NJSEC), and Mid-Atlantic Renewable Energy Coalition Action (MAREC Action) (hereafter, the Joint Solar and Storage Parties) appreciate the opportunity to offer input to the New Jersey Board of Public Utilities (BPU or Board) regarding the Staff Straw Proposal for the design of the Competitive Solar Incentive (“CSI”) Program pursuant to the Solar Act of 2021 (L. 2021, c. 169, or “Act”).

We appreciate the hard work and leadership from BPU Staff and Daymark in developing this straw proposal. We further appreciate the open dialogue with staff and Daymark throughout this process and share the goal of working together to design a CSI Program that constructs at least 1,500 megawatts (MW) of large-scale solar facilities by the end of the decade and puts New Jersey on path to achieve Governor Murphy’s broader energy master plan goal of 12.2 Gigawatts (GW) of solar by 2030, and 17.2 GW by 2035.

Our comments are organized with an opening narrative section explaining our position on the preliminary recommendations and options for the design and implementation of the CSI program, including areas where the Straw Proposal can be improved, followed by specific answers to the questions posed by the BPU. These answers are designated using **blue text**. Unless otherwise specified, failure to comment on any specific question should be interpreted to mean that our organizations do not take a position on the matter at this time.

Our organizations generally support the Straw Proposal and appreciate that it reflects many of our previous comments on CSI program design, including consideration of indexed RECs, the inclusion of an energy storage adder, and the proposed structuring of the CSI program with separate tranches to ensure that a range of competitive solar project types can participate, despite, in some cases, potentially different project cost profiles.

Specifically, the Joint Solar and Storage Parties support many elements of the Staff Straw proposal, such as:

- The recommendation of 140 MW per year of basic grid supply solar, as well as dedicated separate solicitation tranches for grid supply solar on the built environment, grid supply on contaminated land and landfills, net metered non-residential projects above 5 MW, and storage paired with solar.
- The recommendation to offer competitively set incentives to solar projects paired with energy storage through a two-part bid that includes a proposed storage adder price.
- The recommendation to adopt a pay-as bid auction price with strong project maturity requirements that strike a balance between reducing speculative bids from developers and recognizing that competitive solicitations are inherently riskier to developers since not all projects will be awarded incentives.
- The recommendation of a bid fee of \$1,000 per MW, which is at the low end of the bid fees imposed in other states.
- The recommendation of a commercial operation date (COD) deadline of 3 years, with the opportunity for extensions.
- The consideration of indexed RECs, and extensive analysis that demonstrates that offering indexed RECs can be a REC-only solution that allows the BPU to partner with developers to manage wholesale market fluctuations and the limitations of unbundled contracts in a way that reduces aggregate ratepayer's costs.

At the same time, the Joint Solar and Storage Parties believe that the Straw Proposal can be improved upon in material ways that will give clarity to the industry to confidently develop and build under the CSI program, while simultaneously giving the BPU the tools necessary to get the needed quantity of solar resources deployed—and deployed at the best price to ratepayers—as quickly as possible.

Specifically, the Joint Solar and Storage Parties recommend the following:

- While we appreciate the challenging position BPU is in with respect to how ongoing reforms at PJM can materially impact the design of the CSI program and its pre-qualification requirements, the Joint Solar and Storage parties recommend that BPU adopt the proposed base case pre-qualification requirement option that PJM Queue position is a pre-qualification requirement and that the specific pre-qualification requirement be having commenced a System Impact Study from PJM or the equivalent of an Impact study analysis under PJM's queue reform, with the exception of projects bidding into tranche 3 (i.e. Grid Supply on Contaminated Sites and Landfills). This would provide the greatest assurance to the BPU that a project will be able to reach COD within the BPU's proposed three-year timeframe following the solicitation award.
- The 160 MWh storage paired with solar tranche should be eligible for any tranche within the CSI program. As designed, the straw unnecessarily excludes the ability for storage paired with net metered non-residential projects larger than 5 MW and we recommend all tranches within the CSI program have the opportunity to bid for storage adders. The BPU must also match appropriate project maturity requirements for these projects that ensure material modification is not triggered for the interconnection if the energy storage system is removed from the project.

- If price caps are used, it is critical that the BPU be transparent about its calculation and decision-making process in order to ensure industry’s ongoing participation.
- The BPU should adopt a streamlined process for pursuing completion deadline extensions for projects and clarify that these projects have the opportunity for two six-month extensions.
- The BPU should reconsider providing SREC-IIs through administrative rules developed pursuant to statute, not through contracts, particularly if BPU adopts the option for indexed RECs. This is consistent with how other states, such as New York and Illinois conduct their successful competitive solicitations.
- The BPU should consider a three-year full-scale review of the CSI program. Similar to the ADI program’s one-year “quick review” and subsequent three-year full-scale reviews, a three-year review of the CSI program will enable the BPU to recommend adjustments based on unforeseen factors, such as unanticipated changes at PJM, how siting rules are impacting development, new federal policy, or significant market underperformance.

Finally, a workable siting process is imperative for the solar industry to achieve the CSI Program goal of constructing at least 1,500 megawatts of large-scale solar facilities by the end of the decade, as well as Governor Murphy’s broader energy master plan goal of 12.2 GW of solar by 2030, and 17.2 GW by 2035. While the BPU has elected to address siting rules applicable to all projects eligible to participate in the Competitive Solar Incentive (CSI) program through a separate stakeholder process, additional clarity around siting constraints, waivers, and project registrations, including how or when a project reserves their spot in counting towards the statewide or county development limit for prime agricultural soils/soils of statewide importance or otherwise restricted categories, is critical to establishing an appropriately sized market for large-scale solar projects in New Jersey.

II. Response to BPU Staff Questions:

Bid Tranches

1. Please comment on the proposed definitions of the different tranches. Do they clearly indicate what types of projects will be eligible, especially for the Grid Supply on the Built Environment tranche and the Grid Supply on Contaminated Sites and Landfills tranche? Are any clarifications needed?

The Joint Solar and Storage Parties support the definition of basic grid supply projects as including all grid supply solar projects that do not qualify for Tranches 2 (Grid Supply on the Built Environment) or 3 (Grid Supply on Contaminated Sites and Landfills) and are connected to the distribution or transmission system owned or operated by a New Jersey public utility or local government unit.

The Joint Solar and Storage Parties also support the definition of Grid Supply on the Built Environment, which refers to all grid supply solar projects for which 100% of the photovoltaic

panels are installed on rooftops, raised carports over parking lots or parking decks, or similar installations on the built environment.

The Joint Solar and Storage Parties further support the definition of contaminated site or landfill meaning (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), which means an intentional or unintentional action or omission resulting in the releasing, spilling, leaking, pumping, pouring, emitting, emptying, or dumping of a contaminant onto the land or into the waters of the State; or (2) a properly closed sanitary landfill and its associated disturbed areas.

However, floating solar, on storm water retention ponds in industrial plants, irrigation reservoirs, canals, mines, quarries, and storage ponds of pumped hydro facilities that in many cases do not have alternative public use and do not compromise the State's commitment to preserving and protecting open space and farmland should not be considered a basic grid supply project that competes in Tranche 1. This technology is new and cutting edge; however, its cost profile does not easily fit into the tranche's provided in the straw. We would, therefore, recommend that the tranche's be expanded, taking 20 MWs of capacity from the 80 MWs proposed for the built environment, at least on a temporary basis, to allow this nascent technology to compete fairly against other like projects. Absent expanding the number of tranches to make this important accommodation, it is unlikely that this technology will be developed in New Jersey and the state will never come to understand its significant potential.

Finally, we support the definition that net metered non-residential projects above 5 MW must meet the requirements of their New Jersey utility to qualify as net metered projects serving non-residential customers.

2. Are the types of projects included in each tranche appropriate to compete against each other? Why or why not?

The Joint Solar and Storage Parties support the structuring of the CSI program with separate categories, or tranches, to ensure that a range of competitive solar project types are able to participate, despite, in some cases, potentially different project cost profiles. We also support the straw's proposed order of evaluation for tranches beginning with an initial competition of all grid supply projects, (i.e. Basic, projects sited in the built Environment, and projects sited on contaminated sites and landfills), up to the projected annual SREC-II MW target for Tranche 1, followed by targeted competitions for remaining projects up to the projected annual SREC-II MW target for Tranche 2 (Built Environment) and Tranche 3 (contaminated sites and landfills), and a separate solicitation for Tranche 4 (NEM > 5 MW). This approach balances allowing like projects to compete against like projects with the BPU's stated preference for solar projects that make use of the built environment and that minimize impacts on open space.

3. Is a maximum land area of 10% “Associated disturbed areas” for Grid Supply on Contaminated Sites and Landfills appropriate? Why or why not?

In order to maximize ratepayer value, the land area associated with “associated disturbed areas” for grid supply on contaminated sites in landfills should not be constrained at all.

4. What reforms would be most helpful to enabling public entities to participate in the CSI Program? Would bid process support or formalized bidding assistance be of use to public entities?

Public entities interested in participating in the CSI program should be permitted to use an RFQ process in the selection of their development team. This would permit price and other factors to be evaluated by the public entity who will make the final selection so that they would not be constrained solely to the level of discounting offered to their residents. Additionally, we support exempting public entities from the proposed bid fee of \$1,000 per MW and recommend that the BPU consider additional extensions to the proposed 3-year COD requirement for projects serving public entities.

5. The Straw Proposal does not currently envision differentiating between net metered projects based on location (that is, no special consideration for net metered projects on contaminated land, for example, or for rooftop as opposed to ground-mounted net metered projects). Please comment.

Based upon the structure of the tranches as currently proposed, we would see no need for special consideration of net metered projects based upon location.

Storage

6. Please comment on the proposed structure of the storage bid and incentive.

The Joint Solar and Storage Parties support the Straw’s proposal of a storage adder to solar projects that qualify for SREC-II in competition with other solar projects that also offer a storage component. We agree with the proposal of a two-part bid, where bidders indicate the amount of MWh of storage they are proposing and the overall MW size of their solar project, as well as a specific bid for the solar portion of the project (i.e. what a prospective developer would require per MWh of solar production to support their solar project, independent of support for the storage component), as well as a specific bid for the storage portion of the project (i.e. the SREC-II storage adder).

We agree that this bid should be expressed in \$ per MWh of solar production and should specify the number of MWh of energy storage capacity offered. Additionally, we strongly support the straw proposal’s approach to allow developers to decide whether the storage element of their project is separable. We greatly appreciate the additional flexibility of allowing CSI applicants to make their solar bids contingent on the project’s storage bid also being awarded.

Additionally, while we understand that the current state of energy storage technologies inform the BPU’s rationale for structuring the SREC-II adders as a \$ per MWh of solar production,

divided by the percentage of the solar facility capacity that is paired with 4-hours of storage, the BPU should reconsider whether a solar project may be fully paired with more than 4 hours of eligible storage in the future and consider subsequent revisions to the CSI program rules that enable different durations of storage to be proposed and considered.

One important element to consider when developing the energy storage tranche maturity requirements is the interconnection rules regarding adding or removing energy storage from a solar interconnection application. A developer who bids in an application with advanced interconnection would not be able to remove the energy storage portion of the application without triggering material modification which would require reapplying for interconnection.

Therefore, if the BPU proceeds with high project maturity requirements, it is with the understanding that the energy storage component of the project cannot be removed. Finally, if price caps are used, the Joint Solar and Storage Parties respectfully request transparency into how any price caps are calculated. Developers are naturally discouraged from participating in solicitations in which evaluation metrics are not transparent. A lack of transparency in critical areas could reduce future competition, increasing costs to ratepayers.

7. Will the proposed storage adder tranche opportunity change bidding behavior? If so, how?
The opportunity to have a storage adder will likely impact the overall indexed REC bid price a project developer provides. While the inclusion of energy storage would increase the overall cost to the system, it would also create greater value for the resource in the capacity market since it has a better ELCC. The greater forecasted revenues from the capacity market will enable the project developer to bid in a more aggressive strike price for the indexed REC, and therefore will reduce the implied REC price ratepayers will be paying.

The inclusion of energy storage in the bid will also impact decision making for the developer when it comes to interconnection. The PJM interconnection rules would trigger a material modification if energy storage were removed from the application once it is in System Impact Study, so the developer would not be able to modify a project if the storage bid was not selected.

8. Net metered projects are currently not recommended to be able to compete for a storage adder. Please comment.
The Joint Solar and Storage Parties strongly recommend that any CSI-eligible project, including net metered projects, also be able to compete for a storage adder.
9. Do you anticipate that within the next five years, adding storage to a project will reduce the overall SREC-II support needed, rather than increase it?
The costs associated with adding storage to a project are highly associated with supply chain fluctuations in the energy storage industry. The development costs and possible utility upgrade costs for large-scale grid-supply BESS+PV projects are high enough that an incentive is a crucial

part of projects reaching the contracting stage. However, while development costs and interconnection may be higher by including energy storage, the overall value of the system to the wholesale market, and by extension the capacity revenue the project will receive, will make the implied REC payment to the project borne by ratepayers lower over time compared to a solar-only project.

Project Qualification and Maturity

10. Please comment on PJM queue position as a pre-qualification requirement and the implications of PJM queue reform. If PJM queue position were not a requirement, what alternatives should the Board consider?

The Joint Solar and Storage Parties recommend PJM Queue position as a pre-qualification requirement and specifically recommend that the pre-qualification requirement be having commenced a System Impact Study from PJM or the equivalent of an Impact study analysis under PJM's queue reform. While in the early years this may limit applications to projects already in the PJM queue and eligible net metered projects, high maturity requirements will reduce speculative bids, reduce project attrition rates, and ensure that developers are making meaningful project commitments, such as acquiring site control, prior to be awarded an SREC-II price.

However, as we noted in our previous comments on the design of the CSI Program, maturity requirements should be different for Tranche 1 (Basic Grid Supply) and Tranche 3 (Grid Supply on Contaminated Sites and Landfills). These projects typically require additional agency approvals and the amount of investment required to control, test, and evaluate contaminated sites and landfills will deter developers from additional investment in the PJM interconnection process prior to knowing whether or not the proposed project has a path to SREC-IIs. For this reason, we propose that our general suggestion of a pre-qualification requirement of having commenced a Systems Impact Study from PJM or the equivalent of an Impact study analysis under PJM's queue reform be waived for projects in Tranche 3.

11. Under the proposed Base Case pre-qualification requirements, and given PJM's proposed queue reforms, the first CSI solicitation would be limited to projects already in the PJM queue. Staff requests input on how to interpret available information about the number and overall MW capacity of solar projects in the PJM queue. Is there any reason to expect higher or lower levels of attrition than were seen in the 2013-2019 period?

Historically, the interconnection success rate at PJM has been approximately 15%. However, given the interconnection reforms and likely increases in costs for developers to participate in the interconnection process, the attrition rate may increase as fewer developers will have the financial wherewithal to submit an application.

12. At what stage in the PJM queue process do projects typically secure project funding?

The timeline for securing funding depends on the project type and the program the project will participate in. There are no clear generalizable timelines for securing funding.

13. Do PJM's proposed changes to the interconnection process change the relevant considerations around project queue position? If so, how?

No. PJM readiness, and specifically having commenced a System Impact Study from PJM or the equivalent of an Impact study analysis under PJM's queue reform, still provides the greatest assurance to the BPU that a project will be able to reach COD within the proposed three-year timeframe.

14. Do developers expect to use state-jurisdictional interconnection processes or distribution-level interconnections to avoid the PJM queue? How should maturity requirements be developed for such projects? Are there other factors that the Board should consider?

Until the PJM reform process concludes, we anticipate a number of development projects may seek distribution level interconnection. However, this may require additional modifications to New Jersey's EDC-level interconnection rules.

For projects not interconnecting via the PJM interconnection process, it is appropriate to provide evidence of having filed an interconnection application with the applicable distribution utility and having received conditional approval for their request. We further recommend that such projects have a completed interconnection study from the relevant EDC as well, subject to the condition that all deposits be fully refundable should the project not be selected in the bid process.

15. Please comment on the proposed pre-qualification requirements other than interconnection queue position.

The Joint Solar and Storage Parties underscore the importance of developing the CSI Program with maturity requirements that strike a balance between reducing speculative bids from developers and recognizing that competitive solicitations are inherently riskier to developers since not all projects will be awarded incentives.

In addition to requiring an interconnection application, we support the recommendation of a bid fee of \$1,000 per MW, which is at the low end of the bid fees imposed in other states. However, we recommend that in addition to exempting projects serving public entities from this bid fee, projects in Tranche 3 (Contaminated/Landfills) should also be exempt.

The Joint Solar and Storage Parties also recommend that developers also demonstrate experience developing similar projects to their proposal and document their level of community engagement thus far.

We recommend against a cap on the maximum power capacity per acre. First, the policy may run counter to competing goals to restrict the number of acres of land converted for solar generation, as developers using efficient panels or closely aligned rows would require more land to reach the appropriate capacity. Furthermore, the rated capacity of solar panels has risen

significantly over the last decade. While the bulk of panel efficiency gains have been realized, it is safe to assume developers will be able to exceed 300 kW per acre on technology innovation over the next several years

Finally, a workable siting process is imperative for the solar industry to achieve the CSI Program goal of constructing at least 1,500 megawatts of large-scale solar facilities by the end of the decade. While the BPU has elected to address siting rules applicable to all projects eligible to participate in the Competitive Solar Incentive (CSI) program through a separate stakeholder process, additional clarity around siting constraints, waivers, and project registrations, including how or when a project reserves their spot in counting towards the statewide or county development limit for prime agricultural soils/soils of statewide importance, is critical to establishing an appropriately sized market for large-scale solar projects in New Jersey.

It is our understanding that BPU Staff is proposing that approximately one month before any solicitation, projects will be required to pre-register and indicate an intent to bid a project that is sited on land in restricted categories, such as farmland. While the CSI straw proposal clarifies that projects intending to construct on restricted categories will only achieve pre-qualification, and thus be able to bid in a solicitation (if there is room under a given threshold), lack of clarity around how and when a project reserves their spot within the registration system for projects subject to caps is concerning—especially given the BPU’s stated intent to enforce the 2.5% statewide threshold and 5% county development limit independently.

We strongly recommend that the BPU provide more details on the pre-qualification process so that developers have clarity on how or when a project reserves their spot in counting towards the statewide or county development limit for prime agricultural soils/soils of statewide importance within a county ADA. For stakeholders to confidently develop and build under the CSI program, they need to know when and where the siting constraint cap calculator will be posted with up-to-date values, whether there is adequate land available, and that a project they are willing to invest considerable sums of money in reasonably won’t exceed a cap on the use of lands.

16. The ADI Program requires that projects submit a Post Construction Certification Package prior to their registration expiration. Is this practice appropriate for the CSI Program?

Yes, if it is designed specifically for the CSI program as much of the current certification package elements would not be necessary.

17. Please comment on the proposed bid application fee. Should Staff consider capping this fee, or including provisions for returning the fee? Why or why not?

The Joint Solar and Storage Parties support a \$1,000 per MW bid fee, which is at the low end of the bid fees imposed in other states. However, we recommend that in addition to exempting projects serving public entities from this bid fee, projects in Tranche 3 (Contaminated/Landfills) should also be exempt.

18. Currently, Staff is not recommending per bidder award limits or project size limits. Should such limits be included? Why or why not?

The Joint Solar and Storage Parties do not recommend bidder award limits or project size limits.

19. What is the approximate size range of projects likely to be bid?

The approximate size range of projects will likely vary, with smaller projects in the earlier years of the CSI program due to efforts to avoid the PJM queue. However, the approximate size range of projects likely to be bid will also be highly contingent on the final siting guidelines, including whether the BPU proceeds with its intent to enforce a 2.5% statewide threshold and 5% county development limit for projects sited on Prime Agricultural Soils/Soils of Statewide Importance that are in ADAs statewide independently.

20. Would developers bid multiple projects on the same land? Should the Board allow developers to submit multiple mutually exclusive bids?

The Joint Solar and Storage Parties have no comment at this time.

Auction Procedure

21. Please comment on the proposal to conduct solicitations for all tranches in a single procurement.

The Joint Solar and Storage Parties support the proposal to conduct solicitations for all tranches in a single procurement. We also support the straw's proposed order of evaluation for tranches beginning with an initial competition of all projects from Tranche 1, 2, and 3 (i.e., Basic, Built Environment, and Contaminated/Landfills), where projects selected could no longer compete in Tranche 2 or 3, followed by targeted competitions for remaining projects in Tranches 2 and 3 (Built Environment and Contaminated/Landfills) and a separate solicitation for Tranche 4 (NEM > 5 MW).

22. Are the proposed MW capacity targets for solar development appropriate for each tranche? Why or why not?

The Joint Solar and Storage Parties strongly support the proposed 140 MW of capacity for Basic Grid Supply Solar.

While we think it is unlikely that Tranche 2 (Built Environment) or Tranche 3 projects (Contaminated site and Landfills) will be awarded much, if any, of the proposed 140 MW of capacity for Basic Grid Supply under those proposed provisions for allowing such projects to compete in multiple tranches, we support the proposed procurement target of 80 MW for grid supply projects on the built environment and 40 MW or grid supply projects on contaminated sites and landfills.

However, we recommend that the tranche's be expanded, taking 20 MWs of capacity from the 80 MWs proposed for the built environment, at least on a temporary basis, to create a floating solar tranche.

Additionally, while we have been consistent that a competitive solicitation for net-metered projects is not likely to be successful, we should not foreclose the opportunity to participate in a competitive solicitation for large net metered non-residential projects and think a goal of 40 MW of net metered non-residential projects above 5 MW is an appropriate aspiration.

Finally, if there are insufficient bids in any tranche in any annual solicitation and that tranche's budget is not fully exhausted, we recommend that the BPU transfer and re-allocate that budget to select additional projects from the other tranches for which there are competitive bids.

23. Is the storage tranche appropriately sized in the proposal? Why or why not?

The Joint Solar and Storage Parties support an initial storage tranche target of 160 MWh of storage paired with solar.

24. The proposed tranche evaluation order (see Discussion: The order of tranche evaluation and provisions for projects to compete in multiple tranches on page 37) is preferential towards the procurement tranches for Grid Supply on the Built Environment and Grid Supply on Contaminated Sites and Landfills, even if procurement in these categories is above the initial targets. Please comment on this approach.

While we think it is unlikely that projects in the built environment or on contaminated sites and landfills will be lower-priced than other basic grid supply projects on preferred sites, the Joint Solar and Storage Parties support the proposed tranche evaluation order that allows all grid supply projects to compete, with the lowest-priced projects gaining awards, up to the projected annual SREC-II MW target for the Basic Grid Supply tranche. While hypothetically this may lead to procurement in these preferred categories above the initial targets, the realities of higher cost development in these categories makes such a scenario unlikely. We feel that it is more likely that such projects will be awarded SREC-IIs in the subsequent targeted competition for remaining projects sited on the built environment or on contaminated sites and landfills that were not awarded in the initial grid supply projects evaluation.

This approach balances the statutory requirement to evaluate bids based on price with allowing like projects to compete against like projects and the BPU's stated preference for solar projects that make use of the built environment and that minimize impacts on open space.

Auction price result

25. Please comment on the proposed adoption of a pay-as-bid auction price.

The Joint Solar and Storage Parties support the proposed adoption of a pay-as-bid auction price. A pay-as-bid system coupled with strong project maturity requirements for bidders should avoid overpayment to bidders, avoid windfall projects, and minimize project attrition, ensuring that projects reach completion.

SREC-II Payment Structure

26. Please comment on the relative advantages and disadvantages of Indexed SREC-II versus Fixed SREC-II.

The Joint Solar and Storage Parties strongly support the option for indexed SREC-IIs. Grid-scale projects that are not supported by any underlying economics such as net metering or community solar require price certainty from the REC itself. Fixed-Price SREC-II Contracts for grid-supply projects with no additional certainty on revenue streams are likely to lead to more expensive projects since the fixed-price REC will have to support the economics of the project. Both Daymark's analysis and previous analysis from the New York State Energy Research and Development Authority (NYSERDA) demonstrate that Fixed-Price RECs for grid-supply projects are likely to lead to more expensive projects.

The downside of a fixed-REC price is the "fixed" nature of the price. Given the absence of any certainty or hedge over the alternative revenue pathways, the fixed price covers most of the costs of the project. For a fixed-price REC, that means that if higher wholesale market revenues flow to the developer, that revenue does not flow directly to ratepayers in the form of a reduced REC price.

Conversely, an indexed REC approach offers a REC-only solution for the BPU that partners with developers to manage wholesale market fluctuations and the limitations of unbundled contracts and is expected to drive down the price of the implicit REC over the contract period. The biggest benefit of indexed RECs is that the state basically de-risks the revenue for the developer/independent power producer. It acts as insurance, which allows the REC bids to be much more competitive. By shoring up the revenue, they can bring more debt to the project, which is far cheaper and means the project will require less total support from the REC. Based on any normal range of energy and capacity forecasts, the "implied" REC values should be much lower than fixed-price REC only bids. Indeed, this is also backed up by Appendix 2 in the straw, where Daymark's analysis of hypothetical 300 MW procurements found that in the majority of cases, estimated total Indexed REC payments were lower than estimated Fixed REC payments.

The main disadvantages of indexed SREC-IIs are that they are complicated to administer; however, NYSERDA in New York and the Illinois Power Agency in Illinois have demonstrated the viability of this model.

27. Please comment on the risk to ratepayers for Indexed RECs related to longer term price volatility in the Energy and Capacity markets.

In an indexed REC scenario, the developer bids a strike price, and the REC payment level is adjusted such that this price is met. The indexed REC structure reduces market risk for developers, but production and basis risk remain. While Daymark's analysis notes that with indexed RECs, any risk not borne by developers is borne by ratepayers, risk is not the same as cost or aggregate cost and risk can be mitigated by structuring the indexed REC such that SREC-II payments rise and fall inversely to reference energy and capacity revenues but never exceed the "strike price."

Additionally, because estimated total Indexed REC payments were lower than estimated Fixed REC payments, Daymark's analysis noted that "ratepayers were better off more than 75 percent of the time in the Indexed REC case." This analysis reinforces that Fixed-SREC-II payments are likely to lead to more expensive project bids in the CSI program, as well as the NYSERDA analysis we previously shared with BPU staff,¹ which suggested that an indexed REC structure provides significant cost-effectiveness benefits compared to a fixed-REC structure. As a result, if the goal of the BPU is to provide maximum benefit to ratepayers at the lowest cost, and indexed RECs could result in millions of dollars of savings annually, the BPU should offer the option for indexed RECs.

28. Please Comment on the risk to ratepayers for indexed RECs related to market structure evolution in the Energy and Capacity markets.

Given that the PJM market is transitioning towards an Effective Load Carrying Capability (ELCC) approach to quantify a project's capacity contribution and payment, the Board may want to incorporate the ELCC approach into its calculation of the capacity reference price. By incorporating the ELCC into the reference price, solar co-located with energy storage will be able to provide a competitive implicit REC price given the higher capacity price the systems will yield, resulting in ratepayer savings. At the same time, the potential for changes in the ELCC values as renewable energy and energy storage penetration increases in the PJM footprint must be balanced with the need for ratepayer security. We look forward to working with the BPU to find the right balance in the capacity reference price calculation that provides the greatest benefit to ratepayers and incentivizes the most cost-effective projects.

29. Please comment on the proposed qualification life of fifteen years.

The qualification life should be increased from 15 years to 20 years to make prices more competitive. The shorter the tenure of the financial hedge, the more risk is involved, and therefore, the higher the price. This is particularly important if the BPU does not embrace the option for indexed SREC-IIs.

¹ Case 15-E-0302 NYSERDA Comments on the AWEA/ACE-NY Petition Regarding Integration of an Index REC Procurement Structure into Tier 1 REC Procurements Under the Clean Energy Standard, Submitted by the New York State Energy Research and Development Authority October 2, 2019

However, if the Board were to decide to take an approach that does embrace the option for indexed SREC-IIs, which would offer greater certainty to developers, a 15-year qualification life is acceptable.

Procurement frequency

30. Please comment on the proposed annual procurement.

The Joint Solar and Storage Parties agree with the proposal that solicitation rounds be held annually, but that this annual schedule be subject to review and revision in light of changes to the PJM interconnection process. Furthermore, the BPU should consider a three-year full-scale review of the CSI program. Similar to the ADI program's one-year "quick review" and subsequent three-year full-scale reviews, a three-year review of the CSI program will enable the BPU to recommend adjustments based on unforeseen factors, such as unanticipated changes at PJM, how siting rules are impacting development, new federal policy, and significant market underperformance. This will help evaluate the appropriateness of the tranches, capacity targets, and maturity requirements to ensure program success.

31. How much time should there be between the Board authorizing the CSI program, and the first procurement?

The Joint Solar and Storage Parties underscore the need for clear rules and guidelines in order to participate in the CSI program. As such, the Board should move expeditiously to launch the first RFP once an order is issued.

32. How many months between notification of the results of one year's procurement and the due date for bid pre-qualification for the next procurement would be optimal?

Three to six months.

33. Would it be beneficial to "time" the procurement with regard to the PJM queue? If yes, how?

Developers are best equipped to manage development risk and timelines, so long as the Board provides clarity on when the procurements will take place, when decisions will be announced, and what the requirements are for participation.

34. How much time should there be between the Board authorizing the CSI program, and the first procurement?

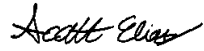
See answer to question 31.

III. Conclusion

The Joint Solar and Storage Parties appreciate the hard work by BPU Staff and Daymark in putting together preliminary suggestions for the design of the CSI Program. Collectively, these recommendations will help ensure that New Jersey facilitates an appropriately sized market for large-scale solar projects in New Jersey, maintains its place as a national leader in solar, and achieves the state's aggressive clean energy goals.

Thank you for considering these recommendations.

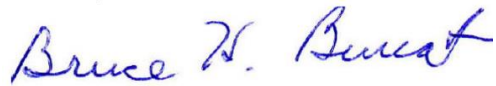
Sincerely,



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