



Agenda Date: 3/6/23
Agenda Item: 8C

STATE OF NEW JERSEY
Board of Public Utilities
44 South Clinton Avenue, 1st Floor
Trenton, New Jersey 08625-0350
www.nj.gov/bpu/

CLEAN ENERGY

IN THE MATTER OF A SUCCESSOR SOLAR
INCENTIVE PROGRAM PURSUANT TO P.L. 2021,
C.169

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ORDER REGARDING THE
ONE YEAR REVIEW OF THE
ADMINISTRATIVELY
DETERMINED INCENTIVE
PROGRAM

DOCKET NO. QO20020184

Party of Record:

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

BY THE BOARD:

By this Order, the New Jersey Board of Public Utilities (“Board”) considers Board Staff’s (“Staff’s”) recommendations to adjust incentive levels for eligible solar generation resources seeking to participate in the Administratively Determined Incentive (“ADI”) Program in order to better meet the State’s solar goals.

BACKGROUND

On May 23, 2018, the Clean Energy Act, L. 2018, c.17 (“Clean Energy Act”) was signed into law. Among other mandates, the Clean Energy Act directed the Board to adopt rules and regulations to close the Solar Renewable Energy Certificate (“SREC”) Registration Program to new registrations once 5.1% of the kilowatt-hours sold in the State are generated by solar electric power connected to the distribution system (known as the 5.1% Milestone), and to develop a new solar incentive program.

On July 9, 2021, Governor Murphy signed the Solar Act of 2021, L. 2021, c. 169 (“Solar Act”). The Solar Act directed the Board to establish a program to incent the development of at least 3,750 megawatts (“MW”)¹ of new solar by 2026 through the mechanism of Solar Renewable Energy Certificates (“SREC-IIs”), representing the value of the environmental attributes produced by the solar electric power generation facility. The Solar Act directs the Board to create a small solar facilities program with administratively set incentive values, and a solicitation process for awarding contracts for grid supply solar facilities and net metered solar facilities greater than five (5) MW.

On July 28, 2021, following an extensive stakeholder process, the Board approved the creation of the Solar Successor Incentive (“SuSI”) Program, consisting of the ADI Program and the Competitive Solar Incentive (“CSI”) Program.² The ADI Program opened on August 28, 2021 to residential projects, net metered non-residential projects equal to or less than five (5) MW, community solar projects and for an interim period that has now ended, projects previously eligible to seek conditional certification from the Board under the subsection (t) program. Upon the opening of the ADI Program, the Board closed the Transition Incentive (“TI”) Program to new entrants, which had been opened as a bridge between the legacy SREC Registration Program and the SuSI Program.

The SuSI Program Order provided that the incentive value would be reset via a public proceeding every three (3) years, with the reset proceeding to be conducted at least nine (9) months prior to the start of the next three-year incentive period. By providing a regularly scheduled incentive reset with full public input, the Board sought to ensure that the market received a clear line of sight to future incentive levels and to prevent boom-and-bust cycles that might occur if incentives were changed more often. In response to extensive feedback from stakeholders, however, Staff also recommended that after the first 12 months of the ADI Program, the Board direct Staff to conduct a “one-year check-up” on incentive levels. The Board adopted this recommendation and directed Staff to conduct a review after one (1) year on incentive levels after the first 12 months of experience with the new program (“One Year Review”).

The One Year Review was intended to provide an opportunity to examine whether the ADI Program is reasonably on track to meet the targets established by the Board or whether adjustments should be made. The Board contemplated that the One Year Review 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. The process for the One Year Review provides for stakeholder input as well as modeling by the Board’s consultant.

The Board adopted rules for the ADI Program, N.J.A.C. 14:8-11.1 to -11.9 (“ADI Rules”), on the January 26, 2022 agenda, which became effective as of February 22, 2022. The rules provide that the Board may adjust the market segments or create new market segments through a Board order to reflect changes in the solar market. N.J.A.C. 14:8-11.7(c). In considering an adjustment, the Board shall include consideration of whether increased or decreased differentiation between market segments is necessary in light of the costs and revenues of different project types, administrative complexity, or the emergence of new technologies.

¹ All MW figures in this order are in direct current or “dc” unless indicated otherwise.

² In re Solar Successor Incentive Program Pursuant to P.L. 2018, C. 17, 2021 N.J. PUC LEXIS 300 (July 28, 2021) (“SuSI Program Order”).

Pursuant to the ADI Rules at N.J.A.C. 14:8-11.7, the Board makes an annual allocation of capacity to each market segment established in the ADI Program. The Board made the annual allocation of capacity to market segments for Energy Year 2023 (“EY23”) by Order dated May 18, 2022. The Board allocated the EY23 residential net metered market segment 150 MW of capacity and carried over unused capacity from the EY22 non-residential net metered market segment to the EY23 non-residential net metered market segment for a total of 287.836 MW of capacity.

On November 21, 2022, the Board Secretary issued notice of a public stakeholder meeting to be held on Friday December 2, 2022 as part of the One Year Review of the ADI Program. In the notice, Staff sought stakeholder input on a number of questions regarding the market’s adjustment to the SuSI Program from the TI Program and seeking comment on the following questions:

- Whether specific ADI Market Segments are under-performing or over-performing, such that an adjustment in incentive levels (either up or down) may be necessary to ensure a healthy solar industry?
- Whether inflationary or supply chain pressures warrant revisiting ADI Program incentive levels to ensure that New Jersey continues to meet its solar targets?
- Whether any incentive level changes should be applied to all ADI Program incentive registrants, regardless of when they registered into the program, to maintain stability and predictability for the solar industry and to avoid discouraging entities from submitting new ADI Program registrations?
- Whether recent changes to federal tax policy, including the passage of the Inflation Reduction Act, warrant changes to the program?
- Whether any incentive levels or level changes should be applied on a temporary basis, given the potentially transitory nature of several of the items addressed above?

As stated in the Stakeholder Notice, “[b]ased on its analysis of these and other factors, Staff may recommend changes to the incentive levels, block sizes or other program rules. The purpose of this stakeholder notice is to establish a process for hearing from the stakeholders on these items and others that stakeholders believe should be taken into account.” Questions were posed to stakeholders on the ADI Program incentive levels that were set in the SuSI Program Order and were anticipated to remain in place until the end of the Program’s first three-year period (May 31, 2024). Comments were due by December 9, 2022.

Staff engaged the Rutgers Center for Green Building (“RU CGB”) to perform the New Jersey Solar Market Potential Study under the Board’s contract for evaluation services in New Jersey’s Clean Energy Program. RU CGB subcontracted with Cadmus to perform economic modeling as part of this study. The financial model used to develop recommendations for the initial incentive levels in ADI, the System Advisor Model (“SAM”),³ will also be used in the estimation of the potential size of various solar market segments in New Jersey. The first step in refreshing the economic model of representative project types was an update to the installation costs reported by solar developers for projects registered in the TI and ADI Programs.

³ National Renewable Energy Laboratory’s (“NREL”) System Advisor Model (SAM). <https://sam.nrel.gov/>.

On December 2, 2022, Staff held a public stakeholder meeting and presented the plan to conduct the One Year Review. Approximately 100 stakeholders participated in the webinar and 15 provided comments. Staff provided a report on program performance by market segment and advised stakeholders that the review of incentive levels will incorporate the market's response to current incentive levels as well as changes in the market. Cadmus provided an overview of the incentive modeling approach to be used, key financial inputs under review and anticipated adjustments to the SAM models proposed for informing the need for any incentive level changes. Stakeholders had the opportunity to provide comments during the meeting.

By Order dated December 7, 2022, in response to the impending oversubscription of the residential market segment, the Board reallocated capacity among market segments in the ADI Program. The Board reallocated a portion of the unsubscribed capacity from the non-residential market segment (30.19 MW) as well as the all the unsubscribed capacity in the interim subsection (t) market segment (69.81 MW) to the residential market segment. In a separate agenda item at the same meeting, the Board approved the CSI Program which enabled closure of the interim subsection (t) market segment in ADI.

Written comments were accepted until December 9, 2022 and 12 responses to the November 21 request for comment were received: Ad Energy, the Coalition of Community Solar Access, Dimension Renewable Energy, Greenskies Clean Energy LLC, Mid-Atlantic Solar and Storage Industries Association, New Jersey Division of Rate Counsel, NJR Clean Energy Ventures, NJ Solar Energy Coalition, NJ Solar Power, PSE&G, Solar Energy Industries Association, and Trinity Solar submitted comments, which are summarized in Appendix A of this Order.

Considerations for Setting Incentive Levels

Staff considered several factors in developing the recommendation for changes to the ADI incentives:

1. Program performance, including whether individual market segments were meeting the statutory goals;
2. Economic modeling with updated inputs, including updated tax rules associated with the Inflation Reduction Act; and
3. Stakeholder input

Each will be discussed in turn.

1. Program Performance

Residential Market Segment:

At the time of the December 7 agenda meeting, the residential market segment in the ADI Program was on pace to receive registrations for capacity that exceeded the 150 MW allocated for EY23 prior to its conclusion on May 31, 2023. From June 1 to December 7, 2022, registrations had been submitted to the ADI portal at an average of 4.9 MW per week. Staff estimated that the residential market segment would be fully subscribed with initial registrations in 4 to 7 weeks if the capacity reallocation had not occurred.

In order to avoid impending oversubscription in the residential market segment, the Board allocated an additional 100 MW of capacity. Basing a capacity allocation on the pace of applications at the current incentive levels would require a MW block of approximately 250 MW. The ADI registration processing team have estimated that approximately 28% of the registered projects in the TI Program failed to complete the development process. Accounting for project scrub, at current incentive levels the residential market segment would require 180 MW of capacity; 20% more than the Board's target.

Non-Residential Market Segment:

The non-residential market segment during this same time period had 62 MW of applications submitted on a weekly pace of 2.3 MW. In May 2022, the Board established an allocation for EY23 of 287.8 MW of capacity in the nonresidential market segment. This allocation added 137 MW of unused capacity from EY22 to a base of 150 MW, a number the Board reduced slightly to 257,836 kW, by re-allocating 30.19 MW of capacity to the residential segment. As of February 16, 2023, 94.28 MW of the non-residential segment had been subscribed, leaving 163.56 MW available. Since December 7, 2022, the pace of new applications has picked up slightly to 2.6 MW per week. At this pace, at current incentive levels, and assuming a 28% scrub rate, the non-residential market segment would result in installation of 98 MW over a one year period.

2. Economic Modeling Updates for Core Market Segments

Cadmus updated the economic models used to develop incentive levels for the ADI Program in 2021. There are currently five (5) core market segments with unique incentive levels established:

- i. residential,
- ii. small non-residential rooftop, carport, canopy and floating solar,
- iii. small non-residential ground mount solar,
- iv. large non-residential rooftop, carport, canopy and floating solar, and
- v. large ground mount solar.

Input values were updated for each modeled project variant to reflect recent changes to the New Jersey solar photovoltaics ("PV") market, including federal investment tax credits ("ITC"), solar PV capital costs, operation and maintenance costs, and interest rates. Performance-based incentive needs (\$/MWh) were estimated for each project variant to reach an internal rate of return ("IRR") target of 12.5% for commercial direct-owned projects and 9.7% for commercial third-party-owned projects. The incentive term for commercial projects was assumed to be 15 years. For residential projects, the economic target was assumed to be a payback period rather than an IRR, and the payback period was set at 10 years.

Incentive levels for these five (5) market segments were established based on the modeling results of 10 “project variants.” Each market segment has a direct owned project variant and a third-party owned project variant, which were combined into one incentive category. The Board approved market segments and MW blocks took into consideration stakeholder comments advocating for both greater differentiation and lesser differentiation among market segments. With respect to the requests for establishing market segments for both direct owned and third-party owned projects, Staff was unconvinced that the added complexity of establishing separate incentives for different business models is warranted, and that ratepayers should pay more for solar that is constructed within a certain ownership structure. In addition, over differentiation through a high level of market segmentation was anticipated to lead to greater likelihood of higher or lower than necessary incentive levels, oversubscription or undersubscription, and greater administrative burden.

The residential market segment has one (1) incentive level for rooftop, ground mount, direct owned and third-party owned solar. The modeled results for the two (2) project variants in the residential segment ranged from \$75 for the direct owned variant to \$105 for the third-party owned variant.⁴

The small projects (less than 1 MW) non-residential rooftop, carport, canopy and floating solar market segment results ranged from \$105 for the direct owned variant to \$170 for the third-party owned variant.

For the small non-residential ground mount market segment, it was assumed that third-party ownership was rare and the modeled result for this single project variant was \$90.

The large (projects 1 MW to 5 MW) non-residential rooftop, carport, canopy and floating solar market segment results ranged from \$100 for the direct owned variant to \$155 for the third-party owned variant.

The large (projects 1 MW to 5 MW) non-residential ground mount solar market segment results ranged from \$80 for the direct owned variant to \$110 for the third-party owned variant.

3. Stakeholder input

The majority of the solar companies and trade groups submitting comments support keeping residential incentives at current levels and increasing non-residential incentives by varying amounts, ranging from \$96/MWh for large ground-mount installations to \$165/MWh for all market segments. One (1) trade association and one (1) solar developer believe that the modeling and the market trends support a modest decrease in the residential incentive levels to \$85/MWh.

Two (2) commenters support using a separate supply chain adjustment based on industry data, with one (1) proposing an increase of 7-14% and the other recommending a 15-20% adjustment. One commenter supports a specific adjustment for the carport/canopy market segment because of a reported commodity steel cost increase of over 50%.

The New Jersey Division of Rate Counsel (“Rate Counsel”) opposed any change to incentive levels in the absence of a procedure that comports with its recommendations for due process but

⁴ Incentive values and modeling results are reported in dollars per megawatt-hour. An SREC-II is issued for each megawatt-hour generated by an eligible ADI project.

believes the likelihood of early subscription suggests that the incentive level is higher than necessary. Rate Counsel asserted that if any change is being considered for the residential market segment, it should be a decrease.

More detailed summaries of and responses to the stakeholders' comments are found in Appendix A.

Implementation of Incentive Level Changes

In the SuSI Program Order's discussion of the one-year review, Staff recommended that the Board generally state that any changes to incentive values would not affect projects already successfully registered in the ADI Program, so long as the registration remains in good standing. Changes would be prospective only, affecting the incentive value offered to projects registering in the ADI Program subsequent to the Board's establishment of new incentive values. When incentive level changes have been implemented in the past, solar developers have objected to immediate implementation, since they are currently in the process of closing deals which quote current incentive levels. When notice is given by announcing an impending incentive reduction, however, Staff has seen a surge of new registrations attempting to qualify under higher rates prior to the change.

An incentive level increase, on the other hand, may result in a significant amount of registered projects withdrawing from the pipeline and re-registering if the increase is not applied to all projects that have active registrations. Since the market response to an incentive adjustment is likely to differ based on whether the incentive is increased or decreased, Staff attempts to design the manner in which the incentive level adjustment is implemented to balance minimizing market disruption with pursuing the solar goals at the least cost to ratepayers.

STAFF RECOMMENDATIONS

Staff provides the following recommendations for adjustments to incentive levels in the five (5) core market segments of the ADI Program. These recommendations are based on an analysis of market performance under current incentive levels, an update to the financial modeling of the market segments, and the stakeholder input solicited in this proceeding.

Staff recommends a modest decrease in the net metered residential market segment and a moderate increase in each of the four (4) net metered non-residential market segments as represented in the table below.

Market Segments	System Size MW (dc)	Current Incentive Values (\$/SREC-II)	Staff Recommendation (\$/SREC-II)
Net-Metered Residential	All Sizes	\$90	\$85
Small Net-Metered Non-Residential located on Rooftop, Carport, Canopy and Floating Solar	Projects smaller than 1 MW (dc)	\$100	\$110
Small Net Metered Non-Residential Ground Mount	Projects smaller than 1 MW (dc)	\$85	\$90
Large Net Metered Non-Residential located on Rooftop, Carport, Canopy and Floating Solar	Projects 1 MW to 5 MW (dc)	\$90	\$100
Large Net Metered Non-Residential Ground Mount	Projects 1 MW to 5 MW (dc)	\$80	\$85

Staff recommends that at this time the \$20 adder for projects benefiting public entities remain unchanged.

While several of the modeling results could have supported different levels, Staff believes that its recommendations of a modest boost to non-residential market segments, and a modest decrease to the residential incentive, represents a reasonable balance between the need to accelerate solar deployment in New Jersey, and the need to keep costs manageable for ratepayers. Staff particularly notes that the difference between direct owned and third-party owned systems has widened over the past 18 months, but continues to believe that incentives should be set at the level necessary to support the business model with the lower cost. Further, Staff continues to disagree with commenters that support higher levels of incentives for parking lot “canopy” systems, which have seen the largest jump in prices due to price increases in the steel necessary to support such systems. The higher costs of investing in a canopy solar system are accompanied by additional benefits to the host in the form of shade and protection from weather to the users of the parking area beneath as well as providing marketing appeal to the associated building owner, which should justify the investment.

Staff recommends that the Board direct Staff to implement the incentive level changes in the manner least disruptive to the solar market and to the efficient administration of the registration process. For the residential market segment, the incentive level reduction should apply to project registrations that are submitted on or after the effective date of this Order. Applying the

adjustment to projects that have already been registered or providing developers more than one (1) week to register projects under the current higher incentive value is likely to disrupt the efficient administration of the registration program.

For the non-residential market segments, the incentive level increase should apply to all projects that have registered but have yet to receive Permission to Operate (“PTO”) from their electric distribution company (“EDC”). By permitting active registrations to receive the higher incentive levels, the program is likely to avoid a scenario where a significant number of registered projects withdraw from the pipeline and re-register.

Finally, Staff recommends that the Board direct Staff to post the performance-based incentive modeling memorandum, prepared by Cadmus, on the Board’s website.

DISCUSSION AND FINDINGS

Staff’s recommendation to adjust incentive levels in the ADI Program results from the One Year Review of the program directed by the Board in the SuSI Program Order. The review, in advance of the first triennial review, is intended to draw on the lessons learned from the first year of operational experience. With the benefit of that experience, the Board uses the One Year Review to determine whether the program is reasonably on track to meet the targets established by the Board or whether incentives should be adjusted. The Board **FINDS** that Staff conducted an expedited public stakeholder proceeding to inform the One Year Review of the ADI Program in accordance with a directives of the Board in the SuSI Program Order. The Board **FURTHER FINDS** that this public stakeholder proceeding provided participants with notice and the opportunity to be heard.

After thorough review of the Staff Notice, the consultant’s modeling, and the stakeholder comments, the Board **FINDS** that, without action, the ADI Program is likely to fail to meet the targets established by the Solar Act of 2021, particularly in the non-residential market segment. As noted by Staff, the non-residential market segment is tracking at approximately two-thirds of the Board’s target. Based on its review of the modeling data compiled by Staff, with the assistance of the Board’s consultant, the Board sees clear evidence that the inflationary and supply chain pressures of 2021 and 2022 have depressed participation in the non-residential market segments of the ADI Program. In part, the Board attributes this falloff to the fact that reported costs for installed solar facilities have increased significantly over the past 18 months since the Board established the ADI Program, largely driven by the record high levels of inflation.

The Board notes that there are two (2) main solar ownership models that are used in New Jersey: the third-party owned and direct owned models. As Staff’s modeling shows, the estimated incentive values between these two (2) models has diverged significantly since the Board first established the ADI Program. The Board continues to find, as it did during the establishment of the initial ADI Program, that incentives should generally be set at the lower of the two (2) business models, and the Board agrees with Staff’s recommendations on this topic. Further, the Board likewise agrees with Staff that establishing higher incentive levels for canopy solar systems is not a prudent investment of ratepayer dollars.

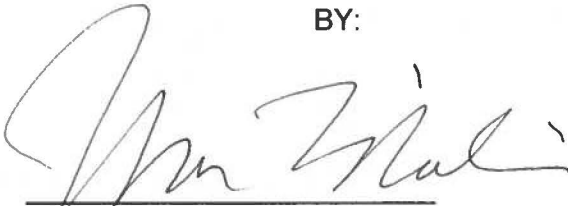
While the Board appreciates Rate Counsel’s concern that solar incentive costs must remain affordable for all customers, the Board disagrees that the process afforded parties participating in the One Year Review was infirm. The Board clearly established the parameters of the proceeding, provided all parties adequate notice, and engaged in extensive modeling efforts with its consultants.

The Board **DIRECTS** Staff to reduce the incentive level for the residential market segment by \$5/MWh for all registrations received on or after the effective date of this Order. The Board **DIRECTS** Staff to increase the incentive levels for large and small net metered non-residential rooftop, carport, canopy and floating solar market segments by \$10/MWh for all registrations that have yet to obtain PTO from the local EDC. The Board **DIRECTS** Staff to increase the incentive levels for the large and small net metered non-residential ground mount market segments by \$5/MWh for all registrations that have yet to obtain PTO from the local EDC. The Board **DIRECTS** Staff to post Cadmus's performance based incentive modeling report on the Board's website.

The effective date of this Order is March 13, 2023.

DATED: March 6, 2023

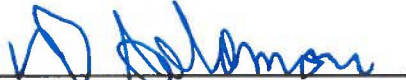
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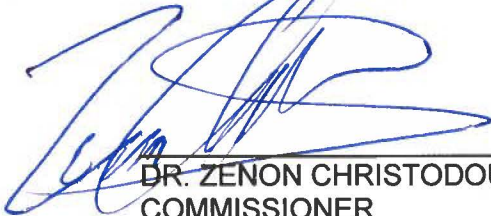
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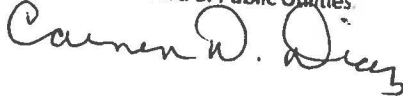
DR. ZENON CHRISTODOULOU
COMMISSIONER

ATTEST:



CARMEN D. DIAZ
ACTING SECRETARY

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



IN THE MATTER OF A SUCCESSOR SOLAR INCENTIVE PROGRAM PURSUANT TO P.L. 2021, C.169

DOCKET NO. QO20020184

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STAKEHOLDER COMMENTS AND RESPONSES

The Board received a total of 12 written comments on the Staff Stakeholder Notice on the One Year Review of the ADI Program, published on November 17, 2022, Docket No. QO20020184.

Comments were received from:

1. New Jersey Division of Rate Counsel (“Rate Counsel”)

Electrical Distribution Companies

2. Public Service Electric & Gas Company (“PSE&G”)

Solar Developers / Industry:

3. Dimension Renewable Energy (“Dimension”)
4. Greenskies Clean Energy LLC (“Greenskies”)
5. NJR Clean Energy Ventures Corporation (“NJRCEV”)
6. Ad Energy
7. NJ Solar Power (“Solar Power”)
8. Trinity Solar (“Trinity”)

Trade Organizations / Coalitions

9. Coalition for Community Solar Access (“CCCA”)
10. Mid-Atlantic Solar and Storage Industries Association (“MSSIA”)
11. New Jersey Solar Energy Coalition (“NJSEC”)
12. Solar Energy Industries Association (“SEIA”)

Stakeholder comments are grouped by the numbered questions in the Stakeholder Notice. Staff has attempted to include the substance of many of the relevant comments into the summaries below as a courtesy to commenters. Comments raised in multiple sections are addressed once.

Prior to addressing the questions set out in the Notice, Rate Counsel expressed serious concerns about the process for the One-Year Review, stating that it does not comport with the requirements of due process as articulated in In re Provision of Basic Generation Service for the Period Beginning June 1, 2008, 205 N.J. 339 (2011) (“BGS Ruling”). Noting that once initial oral and written stakeholder comment has been received, Cadmus will develop modeling changes and Staff will make a recommendation to the Board without further opportunity for stakeholder input, Rate Counsel asserted that this process does not provide the clear notice and opportunity for meaningful comment required by the BGS Ruling. Since Staff has not specified the modeling adjustment or proposed any specific changes in ADI incentive levels, Rate Counsel believes that the process forces stakeholders to effectively comment on potential ADI Program changes without knowing or being allowed to opine on how input and assumption changes will impact ADI incentive levels and capacity blocks. In Rate Counsel’s opinion, the scope of one or more changes might influence whether a party supports or opposes these changes.

In addition, Rate Counsel cited its previously-raised concerns about what it believes are the flaws inherent in administratively determined incentives. According to Rate Counsel, even if incentives are set following proper procedure, the burden of regulatory error is placed on ratepayers. Noting that the original process for setting the ADI incentives included multiple opportunities for

comments, Rate Counsel states that the One Year Review process would effectively undo the previous ADI process and magnify the burden on the State's utility ratepayers.

Rate Counsel proposed the following steps to provide what it would consider adequate process:

- Identify modeling changes offered by stakeholders and accepted by Staff to make ADI Program revisions, including a justification and rationale for these changes and an identification of the underlying data sources.
- Conduct sensitivity analyses and provide stakeholders with an understanding of the relative impact that the changes identified above have on the final incentives or capacity blocks for each of the ADI market segments.
- Allow stakeholders to comment on the Board Staff/Cadmus analysis and any proposed changes in the ADI Program.
- Prepare a final One-Year Review recommendation to the Board, to be included in any Board Order, including detailed explanations of the reasons for Staff's adoption or rejection of stakeholder proposals and comments, and supporting analysis for the recommended ADI incentives and capacity blocks.

If such a process is not feasible within the available time constraints, Rate Counsel recommended that either no changes be made to existing ADI Program incentive levels and market segment capacity blocks or, alternatively, that the deadlines in the SuSI Program Order be adjusted.

RESPONSE: Rate Counsel's claims notwithstanding, the process followed in the One Year Review comports with the requirements of due process. As noted above, this proceeding and its function – considering and potentially recommending changes to incentive levels - were provided for in the SuSI Program Order. More specifically, Rate Counsel and all other stakeholders were provided with notice of the hearing at which Cadmus' modeling and initial assumptions were shared. The stakeholder notice specified that its purpose was to provide a process for hearing from stakeholders, that Staff might recommend incentive changes based on stakeholder input and other relevant factors, such as market response and the rate of registrations into the program. Thus, Rate Counsel and the other stakeholders had notice of this review proceeding, a meaningful opportunity to be heard both at the public stakeholder meeting and through written comments. That is the essence of due process. See, e.g., Doe v. Poritz, 142 N.J. 1, 106 (“due process requires an opportunity to be heard at a meaningful time and in a meaningful manner.”). The SuSI Program Order envisioned the One Year Review in order to ensure that the new SuSI Program was operating consistent with the Board's statutory mandate and the underlying policy goals of the SuSI Program Order. Adopting Rate Counsel's proposed procedure for reviewing the SuSI program would not only frustrate the purpose of the instant review, but would unnecessarily inhibit the Board's continued monitoring of the SuSI program in subsequent cycles.

From Rate Counsel's comments, in addition to the procedures employed by the Board in the instant proceeding, Rate Counsel argued that Staff should identify any changes offered by stakeholders which it has accepted, conduct a sensitivity analysis to “provide stakeholders with an understanding of the relative impact of changes” accepted by Staff on the final incentives or capacity blocks, permit another round of stakeholder comments, and then prepare a final recommendation to the Board. None of these proceedings are necessary to provide due process in the instant proceeding. Here, the Board issued a Notice that clearly identified the issues and the nature of the action proposed. All parties had an opportunity to comment upon that action and did so. The specific incentive changes adopted in this Order fall squarely within the parameters identified in the Notice and commented upon by the stakeholders. Rate Counsel's proposed procedures would tend to require an endless series of re-notice and re-proposal

proceedings where Staff makes some change to modeling assumptions based on input from the regulated public, a result rejected by the Administrative Procedure Act. See In re Provision of Basic Generation Service, 205 N.J. 339, 358 (2011) (“When an agency requests comments on a proposal, if the agency then alters its course in response to the comments it receives, little purpose would be served by a second round of comment, unless the change is so substantial as to render valueless the original notice.”) (internal citations and quotations omitted).

Contrary to Rate Counsel’s claims, the fact that Staff did not propose specific changes prior to the meeting, did not hinder the stakeholders from providing meaningful input. Indeed, the majority of the commenters set forth their own proposals for incentive changes and their supporting rationales. Contrary to Rate Counsel’s arguments, this process in no way resembles that rejected by the Supreme Court in the In re Provision of BGS ruling. In that case, the Board increased the cost of solar alternative compliance payments (“SACP”) in one proceeding about the price of solar alternative compliance payments; in a separate proceeding to review its BGS auction, the Board ruled, without providing notice of the specific rate mechanism or an opportunity for specific comment, that the increased costs of SACP’s in upcoming auctions would be passed along to ratepayers. In re Provision of BGS, 205 N.J. at 345-46. Here, not only were the parties on notice for a year of possible changes to ADI incentive levels and capacity block allocations following the one (1) year review, but Staff also sought comment on specific economic modeling assumptions which might change based on stakeholder comment. This was not a case, as in In re Provision of BGS, where the issue was raised in a party’s comment in a different docket; the notice in this case clearly identified the issues and nature of the Board’s proposed action. The Board’s action in this order falls entirely within the parameters of proposed changes contained in the initial notice.

Moreover, administrative agencies enjoy a great deal of flexibility in selecting the proceedings most appropriate to enable the agency to implement legislative policy. See In re Public Service Elec. And Gas Company’s Rate Unbundling, Stranded Costs and Restructuring Filings, 330 N.J. Super. 65, 106 (App, Div. 2000). The statute does not require this review; the Board afforded it to the stakeholders in the exercise of its administrative discretion. As such, the Board has flexibility in determining how to conduct the One Year Review, including not only the schedule, but the amount of stakeholder input to be sought. The schedule provided for one set of models to be presented rather than the sensitivities proposed by Rate Counsel and one round of comments rather than the two (2) Rate Counsel would like; but that does not render the notice and opportunity for comment afforded inadequate.

Nor does the One Year Review operate to “effectively undo” the lengthier process through which incentive levels were initially set, as alleged by Rate Counsel. Pursuant to the SuSI Program Order, incentive values are to be reset via a public proceeding every three (3) years. The reset proceeding is to be conducted at least nine months prior to the start of the next three-year incentive period to provide for full public input. The Board added the One Year Review in response to extensive stakeholder feedback. This additional shorter-term review, rather than “undoing” the results of the lengthier, regularly scheduled process, affords an opportunity to more precisely align the administratively set incentives with the realities of the marketplace and the industry. Without this process, the incentives would remain at the levels initially set until the first triennial review and while Rate Counsel opines that this outcome would be preferable, the Board disagrees, as do the majority of the stakeholders.

As to the alleged defects of administratively set incentives, the Board entertained those comments at the time the ADI Program was being established. As stated at that time, not only would a competitive process impose a heavy administrative burden for small projects, but the Solar Act of 2021 clearly requires the Board to establish both administrative and competitive program components. The current proceeding is not the appropriate forum for revisiting these issues.

Questions for Stakeholders

- 1. Cadmus proposes to adjust Operational Expenses by annual inflation rates, and to adjust current Capital Expenses by inflation rates and other cost escalators researched from industry data.**
 - a. Please comment on the proposal to use Bureau of Labor Standards Consumer Price Index for All Urban Consumers (“CPI-U”) data to escalate operational and capital expenses.**

Greenskies, a large developer of net metered non-residential projects, believes that the Bureau of Labor Statistics CPI-U rates understate the actual price increases in both operational and capital costs. Greenskies cites module price increases of over 15%, balance of system increases of over 10%, and operational costs that include a 25% increase in casualty insurance in the last two (2) years.

MSSIA and SEIA, solar and storage industry groups for New Jersey, Pennsylvania, and Maryland and nationwide, respectively, have no objection to the use of the CPI-U rates, with MSSIA saying that it is not aware of any comprehensive industry data for solar-industry specific cost escalators.

Rate Counsel does not support making any inflation adjustment at the current time because despite the significant recent inflation, Rate Counsel believes that price levels are starting to moderate and that raising these ADI incentive values now will result in over-incentivizing solar projects as inflation starts to wane due to a slow-down in economic activity. To the extent Staff and Cadmus move forward with making an inflation adjustment, Rate Counsel recommended that the Board utilize the Gross Domestic Product Price Index (“GDP-PI”) as a more appropriate measure of inflation rather than the CPI-U. According to Rate Counsel, the CPI-U is a survey-based instrument and data series designed to measure changes in household consumer-oriented expenditures that can include such items as toothpaste, cosmetics, medicines, food, and other items that have little to nothing to do with the installation and operation of a solar energy project.

RESPONSE: Staff took commenters suggestions into consideration in updating the SAM models used to develop the initial incentive levels. Cadmus adjusted project capital expenditures and operating expenses by market segment. An inflation adjustment was applied to commercial project capital expenditures since costs in this segment were trending up. However, no adjustment for inflation of residential capital expenditures was made since residential costs were trending in opposite directions, depending on the ownership type.

A one-time inflation adjustment was made to the assumed operating expenses used as inputs in developing the 2021 incentive recommendations. The inflation adjustment was derived from the GDP-PI, which measures inflation impacts similar to the CPI-U, but also measures price changes for goods and services purchased by businesses, governments, and foreigners but not importers. The operating expense category includes project management costs, property tax and payment in lieu of property taxes (PILOTs), site leases for third-party-owned systems, as well as a capacity-based operations and maintenance fee, and insurance costs.

b. Please comment on the proposal to utilize industry data to apply a separate supply chain adjustment, and if so, what data range should be used?

Greenskies supported using a separate supply chain adjustment based on industry data, which Greenskies believes would support a 15-20% adjustment.

Stating that supply chain price increases, federal tariffs on PV modules and customs seizures of certain deliveries are all significant factors, MSSIA reported that its members are seeing very significant increases in the cost of PV modules, other solar equipment, and common electrical equipment. MSSIA stated that it has used estimates from its members in its cost estimates for modeling and suggests that a New Jersey industry survey might yield more comprehensive information.

SEIA stated that it is appropriate to apply a cost increase as a result of supply chain complications for capex between 7-14% as referenced by industry reports.

Rate Counsel does not support the use of private or commercial information to support adjustments to ADI incentive levels because it believes that there is no way this information, in contrast to that from government agency sources, can be reasonably and independently audited or verified by any stakeholder in this process, particularly given the time allotted for this review. Additionally, Rate Counsel does not support any adjustments to ADI incentive levels for supply chain constraints in the 7 to 14 percent range that were developed from third-party sources of information such as Wood Mackenzie and/or Bloomberg New Energy Finance. In Rate Counsel's opinion, in the absence of information on where or how this range was developed, the specific source(s) from which these ranges originate, or the relative weighting of information between sources in developing this range, stakeholders are simply left to speculate whether the contemplated adjustment is reasonable. Rate Counsel also asserted that it is unclear whether the possible adjustments are based on an historic range or a projected range, whether the sources relied upon by Staff considered the inherently transitory nature of supply chain constraints, or whether those sources provided any cautions or sensitivities. Rate Counsel fears that the use of privately sourced industry data could very likely result in rates that are not fair, just, and reasonable.

RESPONSE: Staff found no publicly available and independently verified source of data on supply chain costs to inform further adjustments to capital or operating expenditures. Therefore, no additional adjustments were made to capital or operating expenses to account for inflation in modeling incentive values.

c. Are there market segment-specific considerations when making cost adjustments?

Greenskies supported a specific adjustment for the carport/canopy market segment because Greenskies reports an increase in commodity steel costs of over 50%.

MSSIA stated that the residential sector in particular can have different escalation than the non-residential sectors.

SEIA stated that Cadmus' price adjustments for all large-scale ground mounted segments are smaller than those for other segments. Stating that module prices have increased dramatically over the last year, indicating that module pricing for 2023 systems will be considerably higher than is currently presented in its own most recent report. Thus, SEIA recommended that Cadmus

assume module pricing increases for large-scale ground mount systems similar to those in the other non-residential segments.

Rate Counsel stated that no market segment-specific adjustments should be made without clearly identifying these adjustments, providing all support and documentation for such adjustments, and giving parties an opportunity to review and comment on such adjustments.

RESPONSE: As described above, project capital expenditures and operating expenses utilized in the initial incentive models were adjusted by market segment. An inflation adjustment was applied to commercial project capital expenditures since costs in this segment were trending up. However, no adjustment for inflation of residential capital expenditures was made since residential costs were trending in opposite directions, depending on the ownership type.

d. Are there additional or alternative data sources that should inform cost adjustments?

Greenskies points to the updated NREL cost benchmarks, which it says show an increase in costs of 12.8% to 13.4% for non-residential installations from the first quarter of 2021 to the first quarter of 2022.

SEIA alleged that its most recent U.S. Solar Market Insights report suggested that prices for microinverter and single-phase inverters had increased by 4-5% compared to Q2 2021 while its forthcoming Solar Market Insights report, according to SEIA, will confirm that manufacturers continue to raise prices almost every quarter due to inflationary pressures. SEIA also asserted that as aluminum index continues to rise in 2022 residential and commercial rooftop racking costs have increased by 14% and 12% year-over-year, respectively. Finally, SEIA stated its members report that interconnection costs will be increasing over time recommends that Cadmus Modeling account for the interconnection cost increases.

MSSIA suggested that a New Jersey industry survey might yield more comprehensive information on cost adjustments.

Rate Counsel did not have any specific recommendations but suggested that any alternative data that may be used come from credible, publicly-available sources. In addition, Rate Counsel stated that stakeholders should have access to any additional information and should have an opportunity to opine on the data and how incentives or capacity levels are changed given this information.

RESPONSE: The Board's consultant reviewed cost reports from the NREL, Wood Mackenzie, SEIA, and Lawrence Berkeley National Laboratory ("LBNL") to verify the updated modeling assumptions. The findings nationally and regionally on inflationary impacts including those from the supply chain crisis appear to have been captured in the recent costs collected from the TI and ADI solar registration data.

- 2. Interest rates have increased in 2022. In addition to cost and tax credit assumptions, Cadmus can adjust the cost of financing from the previous model runs. The cost of financing had been set at between 5.5% and 6.5%, depending on the project type, in the previous Cadmus Capstone report. Should increased interest rates be accounted for in modeling incentive requirements using the NREL's System Advisor Model? If so, are there suggested data sources for this adjustment?**

Noting that increased interest rates directly impact project costs and also increase investor return expectations, Greenskies recommended updating the interest rate assumption to a minimum of 6.5% and believes 7% to 7.5% would be more accurate.

MSSIA noted its continuing objection to Cadmus' use of leveraged rate of return as its measure of incentive adequacy. According to MSSIA, there are many different ways in which solar project ownership is structured in the industry and within each of the basic ways of structuring ownership, there are many variations for financing. These complexities, in MSSIA's opinion, cannot be captured in SAM. In addition, MSSIA argues that choosing one structure to input amid the variety used in the market cannot produce a complete result. MSSIA recommended setting up SAM to produce unlevered, after-tax IRR as a result (before accounting for owner-side soft costs) and using it as a target. At the same time, MSSIA noted that there are various factors influencing the cost of capital, including an increase in interest rates, investors' general confidence in the New Jersey program, and the degree of competition among finance-owner-operator entities for projects.

SEIA generally supported an updated annual interest rate of 8.5-9.5% adjustment, which it says was demonstrated at the December 2 BPU stakeholder meeting.

Rate Counsel does not support an interest rate adjustment, stating that current economic data suggest that high relative interest rates are likely to dissipate quickly over the next 12 months. In support of this position, Rate Counsel cited business press reports on the presence of substantially inverted yield curves, when interest rates on short-term government securities rise above long-term rates, indicating that markets expect rates to fall over time, and that a recession, or significant economic slowdown may be forthcoming. Rate Counsel suggested Staff continue to monitor this situation in future ADI evaluation periods to see if current interest rate expectations change.

RESPONSE: Cadmus used a stakeholder survey to obtain estimates of market interest rates used to finance solar PV projects to develop the 2021 modeling inputs. Various respondents said that market interest rates were based on a referenced market index with an adjustment. Cadmus revisited the current levels of the referenced indices to revise its interest rate assumption. For the 2023 incentive models, Cadmus used the 9.0% interest rate as the base rate and, consistent with the 2021 Capstone Report, made adjustments for the residential project variants. Cadmus assumed that Residential Roof – Direct-Owned solar projects have an interest rate 0.5 % lower than the base assumption, and Residential Roof – Third-Party–Owned projects have an interest rate 0.5% higher than the base assumption. Cadmus assumed that all commercial projects, both third-party–owned and direct-owned, had the base interest rate.

With respect to the use of levered rates of return in the SAM models, the consultant's sensitivity runs conducted during the 2021 incentive development process incorporated various amounts of debt into the assumptions. The use of debt on average resulted in incentive levels, which were \$17/MWh higher than scenarios with no debt. For commercial projects, debt was assumed to be 52.5% of project costs (equity 47.5%) and for residential projects debt was assumed to be 47.5% (equity 52.5%).

3. Cadmus proposes to adjust investment tax credits for all market segments according to the Inflation Reduction Act, increasing tax credits to 30%. How should the changes in federal tax incentives from the Inflation Reduction Act be accounted for in modeling incentive requirements using the NREL's System Advisor Model?

a. When adjusting tax credits, are there any considerations for specific market segments?

Stating that there are still too many uncertainties to make definitive recommendations for the Year Two ADI Program, Greenskies recommended keeping the ITC at 30% for all market segments. MSSIA and SEIA see no need for specific market segment considerations. Rate Counsel thinks there might be cause to differentiate depreciation allowances for commercial installations relative to residential installations that do not receive these benefits.

b. How should the wage and apprenticeship requirements be considered for tax credit adjustments?

Greenskies believes that the apprenticeship requirements will increase incremental costs and estimates that the IRA's requirement of prevailing wage for ongoing operation and maintenance will increase operational costs by approximately 10%-15%.

MSSIA and Rate Counsel believe that these requirements will have little effect in New Jersey, since the state already has similar rules in place.

SEIA agreed with the Cadmus assumption that the wage and apprenticeship standards will be met for the full 30% ITC.

RESPONSE: In updating the SAM models to inform the One-Year Review, Cadmus adjusted the inputs for all market segments to reflect the 2022 Inflation Reduction Act which raised the federal investment tax credit from 22% to 30%.

4. Does potential funding from the Infrastructure Investment Act require adjustment to any inputs in modeling incentive requirements using the NREL's System Advisor Model?

Greenskies stated that it sees no direct near-term impact from the potential funding from the Infrastructure Investment Act and does not believe this funding should be reflected in the modeling inputs.

MSSIA, noting that the Funding Opportunity Announcements ("FOAs") released by United States Department of Energy ("USDOE") are limited to very specific topics and will draw nationwide responses, states that it would be very difficult to make any general adjustments to the modeling that would meaningfully take the possibility of grants into account. Noting that NREL released a SAM update on November 21, 2022 that did not incorporate potential funding from the

Infrastructure Investment Act, SEIA does not recommend further adjustments to account for that possibility.

Rate Counsel stated that it is not aware of any provisions that allow for a “stacking” of new tax incentives on clean hydrogen and other similar projects with other renewable energy credits like an investment tax credit. Rate Counsel recommended that Staff continue to monitor and review projects in case future adjustments are necessary.

RESPONSE: No adjustments were made to the models to account for the potential that projects may receive funding through or otherwise benefit from the 2022 Infrastructure Investment Act.

5. Does the pace of registration submission into the residential market segment since inception and the likelihood of early subscription of the full 150 MW market segment allocation before the close of Energy Year 2022 support a change in incentive level from the initial value of \$90 per MWh? Should the change in incentive level occur regardless of the modeling results?

MSSIA, NJSEC, SEIA, NJRCEV, Ad Energy, and Trinity believe that apparent increases in the pace of registration in the residential sector have more to do with a catch-up in processing a backlog in applications than a real increase in activity. NJSEC believes that some projects were abandoned because of the backlog. Stating that it has analyzed the program data in order to assess the scrub rate, MSSIA stated that this analysis indicates that when the estimated scrub rates that are calculated from the data are applied, the residential market appears likely to end up roughly meeting the 150 MW yearly target. NJSEC agreed, stating that if a 60-day business cycle is assumed, the 24.07 MW of registrations received in June 2022 resulted in 15.07 MW of installations in September; the 27.05 MW of July 2022 registrations produced 10.66 MW of installations, and the 26.55 MW of August 2022 registrations produced only 5.74 MW of installations in October. SEIA and Ad Energy stated that registrations in September and October regressed back to approximately 15 MW per month and that when a 20% attrition rate is applied this level suggests a rate of 140-150 MW installations in a year. NJRCEV noted that the three, six, and twelve-month run rates on installations are stable at approximately 13MW per month. NJRCEV stated that this is a better rate for planning purposes than the slightly higher new pipeline run rate of 16-19MW per month. NJSEC also asserted that the residential market segment has not exceeded the targeted build out of 150 MWs in the past six (6) years and that it has created the greatest number of clean energy jobs, jobs that NJSEC believes would be put at risk by a reduction in incentive level.

SEIA and Ad Energy asserted that the residential sector has a sales pipeline that can be severely harmed by gaps in capacity availability and should have an “always on” incentive program. In SEIA’s opinion, the 150 MW allocation is ‘arbitrary’ and SEIA proposes responding to any likelihood of early subscription by making a larger capacity allocation or by exempting the residential sector from the annual capacity allocation. Trinity concurred with SEIA and Ad Energy. According to SEIA, the activity in the market as well as the Cadmus modeling means that the ADI incentive is financially viable for residential customers. Reducing the incentive level significantly below Cadmus’ modeling results, SEIA believes, risks making that market segment financially inviable. SEIA pointed to the non-residential market segment as an example of such an outcome.

Ad Energy stated that its analysis of residential market performance suggests that the residential market is not currently running high, although it believes that the increase in the IRA will create modest upward pressure on volumes. The commenter believes that finance costs will moderate and that overall, the net effect of market factors will be small but positive for residential volumes.

Rate Counsel reiterated that incentive levels should not be changed in the absence of a procedure that comports with its recommendations concerning due process but that if Staff is considering a change, the likelihood of early subscription suggests that the incentive level is higher than necessary.

RESPONSE: In discussing activity in the ADI program market segments, it is first important to differentiate between registrations received and registrations accepted. The count and capacity of registrations received are reported on the ADI program portal at <https://njadi.programprocessing.com/>. This activity is recorded based solely on the registrations submitted in the portal. The pace of registrations received is not influenced by the work of the REC registration processing team. The pace of registrations accepted is an inaccurate metric for judging activity in a market segment since it is a function of the ability of the REC registration processing team to review registrations for eligibility prior to acceptance.

The goal of reviewing activity in a market segment is to ensure that the capacity allocated to a market segment is not exceeded by the amount of capacity installed in an Energy Year. For example, on December 5, 2022 the pace of residential registrations averaged nearly 5 MW per week in Energy Year 2023 (“EY23”) and had increased to more than 7 MW. At that time, 135 MW of registrations had been received but only 111 MW was in the pipeline, with a portion having been accepted in EY22. At a 5 MW per week pace, 260 MW of registrations could be expected in EY23. The REC Registration processing team reports that 72 percent of registered projects in the Transition Incentive program successfully completed the process. If 28% of residential ADI registrations failed to complete the process, the residential market segment would require 187 MW of capacity. On December 7, the Board added 100 MW of capacity to the 150 MW residential MW block for EY23 to ensure a sufficient allocation of capacity.

As expressed in the SuSI Program Order of July 2021, the Board has established the system of megawatt block allocation of capacity with associated incentive levels assigned by market segment in order to ensure that a diversity of market segments participate in achieving the goals established in the 2019 Energy Master Plan and the Solar Act of 2021.

6. Does the relatively slow uptake in registration submission in the non-residential market segments and the existence of excess capacity in this allocation for Energy Year 2022 support a change in incentive levels from the initial values?

Greenskies, MSSIA, NJSEC, and NJRCEV believe that the relatively slow uptake in the non-residential net metering market segment is a direct indication that current incentive levels need to be increased, particularly in light of rising costs, which MSSIA says have partially offset the increased ITC. Greenskies stated that number of their customers have put projects on hold because the savings/returns do not meet their expectations and MSSIA asserts that the incentive level for ground mounts for the last three (3) years has caused that market segment to virtually disappear, adding that this segment has value to businesses, schools, municipalities, and non-profits. MSSIA added that those entities have historically located ground-mount systems on spots maintained as ‘grassy areas’ which according to MSSIA continue to be maintained as grassy areas after solar is installed. NJRCEV stated that landfill project incentives of \$100/MWh were also well below the levels needed to encourage project development. In addition, noting that Cadmus’ initial recommendation for third-party owned commercial projects was \$140/MWh rather than the \$90-100/MWh recommended by Staff and approved by the Board, NJRCEV asserted that the lower incentive is the reason that the market segment has installed only 1 MW in the last 12-18 months with a pipeline of only approximately 46MW.

Rate Counsel reiterated that incentive levels should not be changed in the absence of a procedure that comports with due process. Rate Counsel further noted that while the relatively slow pace of non-residential project seeking incentives under the ADI Program might appear to suggest that incentives are too low, this is not the only relevant factor. Rate Counsel suggested that the relatively slow pace of the non-residential participation could be, at least in part, the result of “demand pull” resulting from the significantly higher incentives offered in the Board’s TI Program, noting that the Board has recently denied requests for extensions of the deadline to achieve commercial operation under the TI Program and that many of these projects may choose to participate in the ADI Program.

RESPONSE: The market segments within the non-residential megawatt block have received registrations on a significantly slower pace than the residential market segment. On December 5, 2022 through the first six (6) months of EY23, roughly 62 MW of registrations had been received at a pace of 2.3 MW per week. As of February 9, the total capacity registered was 94 MW with the weekly pace increasing slightly to 2.6 MW. This market segment is not registering projects at a pace capable of exceeding its revised capacity allocation for EY23 of 257.6 MW.

The Board’s consultant analyzed the all-in costs for solar projects installed during 2020 through 2022 and in the program pipeline. In the non-residential market segments, costs were found to have increased from 7% to 35%. The revised incentive modeling demonstrated that cost increases together with increased interest rates were found to more than offset the benefits from the increase in the federal investment tax credit from 22 to 30%. The slow uptake in the non-residential market segments together with the modeling results lead staff to recommend a modest increase in the incentive levels for market segments within the non-residential MW block.

7. Assuming the answer to question 5 is yes and the modeling supports a change in the residential market segment incentive value, how and when should modified incentive values in the residential market segment be implemented?

MSSIA and Ad Energy believe that both the modeling and the market trends support a modest decrease in the residential incentive levels to \$85. SEIA stated that both equipment and labor costs have risen and opposes a change to the current incentive level. Trinity concurred with SEIA. If any change is made to the residential market segment incentive, SEIA recommended that it be implemented on a prospective basis after the BPU decides to make a change. NJSEC stated that installation costs are now 10% higher and that the cost of capital and other costs have also increased and believes that the incentive should remain the same. If incentive reductions are made, NJSEC asked that they be phased in. NJRCEV agreed with Cadmus modeling assumptions and the resulting \$95/MWH residential incentive need. To ensure continued success in this market segment, NJRCEV urged the Board to maintain the Year 1 incentive level.

In Rate Counsel’s opinion, the Board should not try to determine whether the ADI incentives for commercial projects are inadequate until a program offering higher incentives is no longer an alternative. Rate Counsel opposed any change to incentive levels in the absence of a procedure that comports with its recommendations for due process but believes the likelihood of early subscription suggests that the incentive level is higher than necessary. If any change is being considered for the residential market segment, Rate Counsel believes it should be a decrease.

RESPONSE: Staff believes that the least disruptive means by which to implement an incentive level decrease is prospectively, e.g. with all residential registrations received on or after the effective date of the Board Order. Applying the decrease retrospectively will likely lead to project registrations being abandoned. Staff does not support a phased in reduction in incentives, which

enables using the reduction as a sales tool and tends to produce a surge in registration activity, increased rates of registration errors, and increased processing backlogs.

8. Assuming the answer to question 6 is yes and the modeling supports an increase in the non-residential market segment incentive values, how and when should the altered incentive values be implemented?

Greenskies believes that rates for rooftop installations should be increased by a minimum of \$20/MWh and that an increase of \$25-\$30/MWh would be more appropriate, while a \$30/MWh adder is needed for carport projects. Greenskies thinks that these increases should be implemented as soon as possible, before the next program year if possible. SEIA stated that if Cadmus modeled additional costs for carports and ground mounted solar due to steel price increases, the modeling would likely justify an increased incentive or location-based adder for canopies and carports similar to the \$20/MWh adder for public entities. SEIA recommended making these changes prospectively only.

MSSIA stated that its modeling supports a \$10 increase for large rooftop systems, a \$15 increase for small rooftop systems, a \$15 increase for large ground-mount systems and a \$20 increase for small ground-mounts systems.

NJRCEV recommended that Staff follow the Cadmus analysis and increase incentives for commercial net metered projects and other market segments to \$165/MWh as Cadmus has recommended for third-party owned commercial projects.

Rate Counsel believes that incentive levels should not be changed in the absence of a procedure that comports with due process and that it would be premature to change incentives when a program offering higher incentives is still available.

RESPONSE: Staff believes that the least disruptive means in which to implement an incentive level increase is to apply the new incentive level to projects in the registration pipeline that have yet to receive PTO, registrations received that have yet to be accepted, and new registrations received. Applying the increase in an incentive level prospectively will likely lead to project registrations being cancelled and resubmitted.

9. What other issues should be considered in the One-Year Program Review?

Greenskies strongly recommended keeping the public entity adder because they believe it directly benefits all State residents and the competitive bid requirement means that the additional incentive benefits the public entity rather than the developer.

RESPONSE: Staff agrees with the commenter that public entities should continue to receive the adder established in the SuSI Program Order. The importance of government "leading by example" in clean energy cannot be overstated. Should the forthcoming Treasury guidance enabling this tax benefit to now be useful to public entities prove to be attractive the Board may revisit this issue.

MSSIA recommended that BPU take the likely scrub rate into account in predicting the potential for full subscription this year, pointing to its own analysis of the residential market and to the comments of MSSIA Board member Andy Wall. In addition, MSSIA believes that any adjustment of the allocations for residential versus non-residential incentives to make up the difference be re-examined at the end of the year with scrub taken into account. MSSIA also recommended that

BPU conduct another review and refresh of the ADI in one (1) year. The commenter based this recommendation on its belief that cost, interest rates, and other factors may improve over the coming year and that after Treasury guidance is issued on the IRA provisions regarding transferability of the ITC and the ability of governmental and non-profit entities to take advantage of this, new practices and market structures will develop.

RESPONSE: As noted above, Staff taken into account the scrub rate reported by the REC registration processing team and that scrub rate of approximately 28% has been factored into the discussion of likely subscribed capacity. As to the commenter's request for a re-examination of capacity allocation adjustments at the end of the year, the Board is not proposing any adjustment of market segment allocations at this time. With respect to conducting another one year review, the Board notes that the first triennial review of the ADI incentive and allocation rates is scheduled to occur at the end of May 2024, a little over one year from the present. A second one year review would therefore be redundant.

MSSIA and SEIA recommended adjustments to the Cadmus modeling. MSSIA expresses dismay that the modeling assumptions and methodologies underlying the TI and ADI programs have not been greatly changed for the modeling shared with stakeholders for the one-year review. MSSIA advises that it will be providing its results from using the SAM model but asserts that its own model is a transparent and easy to check solar industry model used in actual business transactions – apparently recommending that the Board adopt MSSIA's modeling. With respect to the assumptions used, MSSIA stated that it has changed the target IRR (using one that is unlevered, after-tax, and does not include owner-side soft costs) for large net metered non-residential projects by ten basis points for both rooftop and ground-mount systems and has made "modest" increases to labor and equipment costs.

RESPONSE: As noted above, Staff took commenters suggestions into consideration in updating the SAM models used to develop the initial incentive levels. The SAM model is a publicly available model created by a neutral third party and is more likely than an industry model to produce a result fair to the ratepayer as well as to the solar developer. Staff continues to believe that setting the IRR to produce an unlevered, after-tax result exclusive of owner soft costs would produce an overly rich incentive.

SEIA agrees that assuming a 3% increased cost of project debt is reasonable but states that it should result in at least a corresponding 3% increase in IRR. In addition, SEIA noted that the general US commercial credit outlook is negative for the foreseeable future and thus believes that the true cost of financing will be much higher for most of the non-residential segment. SEIA also objected to using a 15% discount estimate for customers to derive the power purchase agreement ("PPA") rate, stating that residential discounts should be modeled between 20% to 25% and non-residential discounts at 25%.

RESPONSE: Staff does not agree that a 3% increased cost of debt translates directly to a 3% increase in IRR. The future cost of financing is an overly speculative factor to introduce into determining incentives that will be paid for by the ratepayer. The 15% discount used to derive the PPA rate is consistent with past practice and the data reviewed by Staff's consultant.

SEIA noted that 2021 was the first year that solar system prices increased consistently year-over-year and quarter-over-quarter, stating that module pricing is at its highest level since 2016 because of supply chain challenges, trade policies, and high polysilicon prices. SEIA anticipates that 2022 module imports will be 65% of the amount seen in 2021, decreasing module supply and raising module prices across all segments. As a result, SEIA reported that the residential and

commercial segments, with shorter procurement cycles, saw an immediate spike in module prices.

RESPONSE: As previously noted, Cadmus adjusted project capital expenditures and operating expenses by market segment and, specifically, applied an inflation adjustment to commercial project capital expenditures in recognition of the fact that costs in this segment were trending up. While Staff acknowledges that module supply may be constrained in the coming months, Staff continues to believe that further increasing the incentive at this time would be irresponsible.

CCCA, a national trade organization, and Dimension, a community solar developer, note that Cadmus' presentation did not specifically address community solar but state that Cadmus' finding that inflation and the rising cost of debt are negatively impacting solar development holds true for CCCA's member companies and for Dimension. Both also pointed to supply chain delays and assert that the cost of customer acquisition and income verification are greater for community solar developers. In addition, Dimension claims that community solar developers in New Jersey make significant investments in the community and that these investments are costly. While acknowledging that the IRA's 30% tax credit and the additional up to 20% credit available to projects serving low and moderate income ("LMI") households may provide a significant incremental benefit in the future, CCCA and Dimension urge the Board not to reduce the incentive for community solar projects until those benefits have been proven.

PSE&G stated that EDC participation in the Community Solar Program could benefit underserved communities and says it remains available to participate in the Community Solar Program.

RESPONSE: The pilot year programs for community solar are now closed. Staff encourages the commenters to participate in the ongoing process of developing the permanent community solar program. Up to the present, the competitive market has responded robustly to the community solar program, so that Staff does not see the need to ask ratepayers to further subsidize this market segment.

PSE&G suggested that the Board should focus its primary efforts on incentivizing larger-scale, grid-connected projects. Noting that only 5.7 MW of the 100 MW allocated to the interim "Subsection t" segment of the ADI Program were used, PSE&G suggested that incentives for private developers may be insufficient to spur solar development on such land and notes that it has developed approximately 35% of all landfill/contaminated site solar capacity in the State. PSE&G recommended that the State bring the EDCs into the market to grow the grid-connected solar sector, and especially solar developed on landfill, brownfield, or areas of historic fill. Stating that there is no provision in the SuSI Program for EDC participation, PSE&G asserted that it is particularly well suited to address such development and points to solar generating facilities it has developed on landfill and contaminated sites through its Solar4All® program.

RESPONSE: Staff agrees that the Interim Subsection (t) portion of the ADI Program underperformed and notes that "demand pull" from the closed TI Program was probably responsible at least in part for the slow start in the non-residential market segments. Staff believes that the CSI Program, which is anticipated to keep down ratepayer costs as well as promote investment in this market sector, is the most appropriate response. In addition, Staff notes that the Solar4All program substitutes ratepayer capital for private investment and allows utilities to earn on that capital; thus, it has historically been one of the more costly programs for ratepayers. Ratepayers already subsidize the solar market, including this segment; Staff does not recommend promoting further ratepayer funding of solar projects at this time.

NJ Solar Power argued that the two (2) main problems for the residential market segment and for potential residential solar customers are the underuse of the direct ownership model and the allocation of too many MW to the Community Solar program. According to NJ Solar Power, all third-party ownership models take most of the benefits of solar and are 20-40% more costly to the ratepayers due to the overhead of supporting their business models. In addition, NJ Solar Power asserted that ratepayers often sign leases without any idea of what they've signed, which it states leads to 30-40% cancellation rates. The commenter added that the current incentive program has no way of determining if the project is moving forward and the slots are filled for one year.

NJ Solar Power claimed that the same holds true for Community Solar as a type of leasing program. Moreover, NJ Solar Power believes that Community Solar causes other problems for the residential market by marketing to the same customers as other solar developers and accelerating the "shutdown" of grid areas, thus preventing thousands of individual ratepayers from purchasing a system. NJ Solar Power also asserted that LMI Customers are required to have similar credit scores to those needed for direct purchases and that direct purchase is the best way for these LMI Customers to participate in the solar market.

NJ Solar Power recommended re-allocating between these segments to give the residential segment 225 MW and Community Solar 75 MW. In addition, NJ Solar Power proposed dividing the residential sector to allocate 90 MW (40%) to direct ownership and 135 MW (60%) to third-party owned systems.

RESPONSE: Staff does not dispute that third-party ownership tends to provide a lesser financial benefit to the host customers than direct ownership. Staff notes, however, that some residential customers choose the lesser benefit in order to avoid the additional responsibilities of ownership. Moreover, direct ownership is already on the rise in New Jersey without the need for further subdividing the residential sector. As to the Community Solar program, Staff does not concur with the commenter that the majority of customers served by this program would be able to take advantage of the projects sold by other developers. The powerful equity argument that drove the creation of this program continues to support its further development and expansion.