



State of New Jersey
DIVISION OF RATE COUNSEL
140 EAST FRONT STREET, 4TH FL
P.O. BOX 003
TRENTON, NEW JERSEY 08625

PHIL MURPHY
Governor

SHEILA OLIVER
Lt. Governor

STEFANIE A. BRAND
Director

November 2, 2018

VIA ELECTRONIC MAIL (rule.comments@bpu.nj.gov)
AND HAND-DELIVERY

Honorable Aida Camacho-Welch, Secretary
New Jersey Board of Public Utilities
44 S. Clinton Avenue, 3rd Floor, Suite 314
Trenton, New Jersey 08625-0350

Re: New Jersey's Solar Market Transition

Dear Secretary Camacho-Welch:

Enclosed please find the original and then copies of the comments of New Jersey Division of Rate Counsel ("Rate Counsel") in connection with the above-captioned matter.

We are enclosing one additional copy of the comments. Please stamp and date the extra copy as "filed" and return it in our self-addressed stamped envelope. Thank you for your consideration and assistance.

Respectfully submitted,

STEFANIE A. BRAND
Director, Division of Rate Counsel

By:

Sarah H. Steindel, Esq.
Assistant Deputy Rate Counsel

c: OCE@bpu.state.nj.us
Rule.Comments@bpu.nj.gov
Kenneth Sheehan, BPU
Sherri Jones, BPU
Scott Hunter, BPU
Noreen Giblin, Esq., BPU
Rachel Boylan, Esq., BPU
Caroline Vachier, DAG

STATE OF NEW JERSEY
BEFORE THE BOARD OF PUBLIC UTILITIES

In re: New Jersey's Solar Market Transition)
)
)

COMMENTS OF THE
NEW JERSEY DIVISION OF RATE COUNSEL
ON NEW JERSEY'S SOLAR MARKET TRANSITION

November 2, 2018

INTRODUCTION

The Division of Rate Counsel (“Rate Counsel”) would like to thank the Board of Public Utilities (“Board” or “BPU”) for the opportunity to provide comments on the issues surrounding the development and transition of the New Jersey Solar Renewable Energy Certificate (“SREC”) Program.

The recently signed Clean Energy Act (P.L.2018, c.17) (“Act”) directs the BPU to transition the solar market away from SRECS and into a new methodology. Specifically, the Act requires the Board to adopt rules and regulations to close the SREC program to new applicants once solar generation reaches 5.1 percent of total retail sales upon the attainment, and no later than June 1, 2021. On October 5, 2018, Staff issued a notice seeking stakeholder input and scheduling a stakeholder meeting on October 17, 2018. Staff’s notice and request for comments outlined 11 questions for discussion. Rate Counsel’s comments in response to these questions are offered below.

PROPOSED STAFF SREC TRANSITION QUESTIONS

- (1) How should the BPU identify, determine, and calculate the “attainment of 5.1 percent of the kilowatt-hours sold in the State by each electric power supplier and each basic generation provider from solar electric power generators connected to the distribution system”?**

Comment:

Identification of the attainment of 5.1 percent for the solar carve-out of the New Jersey RPS very much depends on how the Board decides to close the SREC program. Please see Rate Counsel’s comments to Question 2 below.

- (2) **Would closing the SREC program to new applications before there is an oversupply cause SREC prices to reach or exceed the Class I renewables cost cap (per the Clean Energy Act)? Would closing the SREC program to new applications after there is an oversupply cause SREC prices to drop significantly? Please explain your analysis.**

Comment:

The Clean Energy Act states that the Board must adopt rules to close the SREC program to new applicants upon the attainment of 5.1 percent of retail sales, and no later than June 1, 2021. While this requirement closes new entry into the SREC program, existing eligible projects will continue to receive SRECs for the remainder of their 15-year SREC eligibility period. The Act also established a new cost cap to protect ratepayers from incurring excessive RPS compliance costs. The cap is set at nine percent of the cost of electric sales for Energy Years (“EY”) 2019, 2020 and 2021 and falls to seven percent for each year thereafter. This translates to a cost cap of about \$900 million for the first three years and \$700 million for each year after.¹

At current retail sales levels and SREC prices, the funds needed to cover the cost of SRECs generated through the current program will meet, or even exceed the cost cap. Assuming a retail sales level of 75 million MWh and SREC prices at \$212 per MWh, the total dollar amount needed to fund the SREC program at 5.1 percent would be over \$800 million, or 90 percent of the cap for EY19 through EY21. This leaves very little, if any, funds remaining for new programs and even exceeds the cost cap of \$700 million for EY22 and beyond.

Current SREC Program Estimated Cost		
Total Retail Sales (MWh)	(a)	75,000,000
Solar RPS (%)	(b)	5.1%
Solar RPS (MWh)	(c) = (a)*(b)	3,825,000
Current SREC Price (\$/MWh)	(d)	\$ 212.00
Total SREC Cost (million \$)	(e) = (c)*(d)	810.9

¹ Assuming total retail sales of 75 million MWh and an average retail rate of \$0.134 per KWh.

The Act's new cost cap effectively creates a budget for the cost of all Class I renewable energy credits ("RECs") going forward. And, at current prices, the SREC program will consume, if not exceed the entirety of that budget. Thus, the Board must decide in closing the SREC program, what SREC price shall these existing, or "legacy" projects receive going forward? The Board can choose to either (a) leave the SREC market to determine price as it has since its inception; or (b) identify a sustainable SREC price that will allow legacy projects to continue to cover their investment but not devour all of the funds under the new cost cap.

Rate Counsel supports the intent of the Clean Energy Act to close the SREC program as part of the State's strategy for meeting its overall clean energy goals. While the SREC program has been successful in encouraging over two gigawatts of solar development throughout New Jersey, it has also cost ratepayers over \$2.2 billion.² In order to meet the State's clean energy goals with the available resources, it will be necessary to reduce the costs of solar development. Rate Counsel believes that closure of the current SREC program is past due, and it is time for New Jersey to move toward a new, more competitively based, solar development program.

Initially, it will be important for the Board to implement a program to meet the reasonable expectations of the owners of legacy projects while leaving room under the cost cap for new Class I initiatives. Rate Counsel recommends that the Board identify a sustainable SREC price level and set an administratively-determined schedule to compensate legacy projects for the remainder of their SREC eligibility. Much like the current SREC and SACP, these prices

² This figure represents the total cost of SRECs and SACP from EY2005 through EY2017. See NJ RPS Compliance History, available at: http://www.njcleanenergy.com/files/file/rps/EY17/NJ%20RPS%20Compliance%20EY%202017%20Final%20Results%2011_2_17.pdf.

would be set on a unit basis (\$/MWh), and at a consistently declining rate. More details and specific price recommendations are outlined in Rate Counsel's response to Question 4.

In addition, the Board has two alternatives in deciding when to close the current SREC program. It can: (a) close the program once anticipated generation from total installations have reached 5.1 percent of total retail sales; or (b) use the historic completion rate from the solar installation pipeline and close the program just short of reaching the 5.1 percent target. Rate Counsel notes that the solar installation pipeline has been used repeatedly in the past to reliably project solar installations and should be used here to allow the Board to close the program just short of reaching the 5.1 percent solar RPS target. This will still guarantee enough capacity to meet solar RPS goals, but also save sufficient funds so that other, new and more efficient programs can be initiated while still meeting the cost cap. The cost associated with this methodology is provided in response to question 5 below. If the Board chooses to wait until generation from all installations reaches 5.1 percent of total retail sales, it will likely over-shoot that target, resulting in more and unnecessary funds being spent on legacy projects.

- (3) Explain your understanding of what constitutes an “orderly and transparent mechanism that will result in the closing of the existing SREC program on a date certain but no later than June 1, 2021.” How much notice is needed, and what specific information should be published?**

Comment:

The guiding principles for moving forward with the solar transition are clearly articulated in the Clean Energy Act which calls upon the Board to establish mechanisms that will be “efficient” and “orderly” and that will rely upon “competitive processes” and “competitive procurement.”³ It is important to recognize that the transition called for in the Act is not an indictment of the competitive process, or the fact that market-based mechanisms have been used

³ P.L.2018, c.17, at 7.

to promote solar energy in the past. If anything, the Act is calling upon the Board to use its regulatory powers to inject more, not less, competition into New Jersey's solar energy markets so that the benefits of solar energy development are attained at the least cost possible. The Act is clear in calling on the Board to "continually reduce, where feasible, the cost of achieving" the state's solar energy goals.⁴ Rate Counsel encourages the Board to continue to pursue actions that lead to an aggressive reduction in solar energy development costs for ratepayers. This should be the primary goal of the transition process as envisioned, and explicitly noted, in the Act.

Rate Counsel also cautions the Board not to accept any arguments that suggest this solar transition process should be used as a means to reduce competitive pressures, maintain the status quo, or go beyond what is articulated in the Clean Energy Act. The transition process should not be one that compensates solar developers for bad business decisions and bad prior market outcomes. The Clean Energy Act is not a form of bail-out legislation for the solar industry. The Act does not call for the Board to develop new, financial support mechanisms to support solar investors for past business decisions. This transition should not digress into a discussion of "sustaining" certain elements of the solar industry that have been compensated too much for too long.

The solar transition process should not be one that provides solar developers with some form of guaranteed return, particularly one that is inconsistent with what is needed to develop solar installations. Consider that currently, a 10 kW residential system with an installed cost of \$3.50 per watt, needs an SREC of less than \$100 to yield a reasonable 8 percent internal rate of return ("IRR") on the investment. Yet, today, SREC prices are over \$200, which is double what is needed to incent solar development, even for small and usually more expensive solar installations. This overpayment is exaggerated for larger systems that have even lower unit

⁴ *Ibid.*

development costs. The fact that current SREC prices are higher than needed to bring solar to the market means that someone, developer or installation customer, is being rewarded far too much for their efforts. This is part of the reason why the financial support being provided by ratepayers continues to be high and why New Jersey's solar market is usually "long" on capacity development relative to its legislatively required targets.

Rate Counsel does believe, however, that a certain degree of fairness and transparency should be imparted into the process, even though these are not principles explicitly outlined in the Clean Energy Act. The spirit of fairness and transparency can be attained by defining transition mechanisms that are clearly articulated and maintained over a sustained period of time. Rate Counsel believes this is consistent with what the Act calls as an "orderly" process. Rate Counsel also notes that being fair and transparent does not have to come at the expense of, or is in any way at odds with, encouraging competition in solar development. Transparency and fairness means that the rules of the road are (a) clearly articulated; and (b) not altered repeatedly. Wild, speculative movements in SREC prices will not constitute an "orderly" transition. Creating numerous set-asides, grandfathering provisions, and unnecessarily segmenting the market into various components for transitioning purposes will not constitute a "transparent" process since it only confounds the process and will likely result in confusing, mixed and potentially contradictory market signals. The Board can pursue both a fair and transparent process that "continually reduces" the ratepayer cost of supporting solar development.

The key to this SREC transition is to clearly decide and define what will happen to legacy SREC-eligible projects. Creating incentives for future Class I REC capacity is less problematic since there are a variety of ways in which incentives can be established, recognizing some will be more efficient and cost-effective than others. Rate Counsel recommends the Board define a

date to close the current SREC program using the historic completion rate from the solar installation pipeline; and set a schedule of administratively-determined prices for those legacy projects. This will provide a clear, informative path for developers and owners of solar installation programs going forward.

- (4) **How can the Board ensure SREC prices are sufficient to support an orderly and transparent closure of the SREC program, while providing enough money under the cost cap to fund new solar incentive programs and other Class I renewables to meet the 50% RPS requirement by 2030?**

Comment:

As noted previously, the biggest challenge for the Board is how to deal with SREC prices and payments to legacy projects installed under the current SREC program. Rate Counsel recommends that the Board close the program by relying on the historic completion rate from the solar installation pipeline and set an administratively-determined price (on a \$ per MWh basis) for legacy projects for the remainder of their SREC eligibility. Rate Counsel estimates that a starting price of about \$100, which is 40 percent of the current SACP, would allow legacy projects to cover their installation costs and leave room under the cost cap for new Class I REC initiatives. This rate would decline at the same rate of decline as the current SACP.

Setting prices in this fashion would assure investors of legacy projects that their expectations on SREC prices will be honored. And, all retired SRECs at these fixed prices would be used to meet the solar RPS obligation. Table 1 below shows that these fixed-price payments, would leave sufficient room under the cost cap for new Class I REC initiatives.

Table 1. SREC Program Options under the Cost Cap

Energy Year	Solar RPS (%)	NJ Retail Sales (MWh)	SRECs Required (MWh)	NJ Total Retail Sales (million \$)	Class I REC Cost Cap (million \$)	Scenario 1: SREC Prices at Current Rates			Scenario 2: SREC Prices at 40% of SACP		
						Fixed SREC Price (\$/MWh)	Total SREC Cost (million \$)	Remaining Class I REC Cost Cap (million \$)	Fixed SREC Price (\$/MWh)	Total SREC Cost (million \$)	Remaining Class I REC Cost Cap (million \$)
2020	4.90%	75,031,955	3,676,566	\$ 10,052	\$ 904.7	\$ 212	\$ 779	\$ 125.3	\$ 103	\$ 379	\$ 525
2021	5.10%	75,031,955	3,826,630	\$ 10,052	\$ 904.7	\$ 206	\$ 787	\$ 117.8	\$ 99	\$ 380	\$ 525
2022	5.10%	75,031,955	3,826,630	\$ 10,052	\$ 703.6	\$ 199	\$ 763	<i>over cap!</i>	\$ 95	\$ 364	\$ 339
2023	5.10%	75,031,955	3,826,630	\$ 10,052	\$ 703.6	\$ 193	\$ 740	<i>over cap!</i>	\$ 91	\$ 349	\$ 355
2024	4.90%	75,031,955	3,676,566	\$ 10,052	\$ 703.6	\$ 188	\$ 690	\$ 13.6	\$ 87	\$ 321	\$ 383
2025	4.80%	75,031,955	3,601,534	\$ 10,052	\$ 703.6	\$ 182	\$ 656	\$ 48.0	\$ 83	\$ 300	\$ 404
2026	4.50%	75,031,955	3,376,438	\$ 10,052	\$ 703.6	\$ 177	\$ 596	\$ 107.4	\$ 79	\$ 267	\$ 436
2027	4.32%	75,031,955	3,241,380	\$ 10,052	\$ 703.6	\$ 171	\$ 555	\$ 148.4	\$ 75	\$ 244	\$ 460
2028	3.74%	75,031,955	2,806,195	\$ 10,052	\$ 703.6	\$ 166	\$ 466	\$ 237.4	\$ 71	\$ 200	\$ 504
2029	3.07%	75,031,955	2,303,481	\$ 10,052	\$ 703.6	\$ 161	\$ 371	\$ 332.4	\$ 67	\$ 155	\$ 549
2030	2.21%	75,031,955	1,658,206	\$ 10,052	\$ 703.6	\$ 156	\$ 259	\$ 444.4	\$ 63	\$ 105	\$ 599

- (5) What alternative approaches should be considered to allow for adequate compensation of existing solar projects while preserving enough money under the cost cap to support continued growth in solar and other Class I renewables?

Comment:

Please see response to (4) above.

- (6) Consistent with the guidelines in the law, how can the BPU ensure continuity between the closure of the SREC program to new applications and the establishment of a new or modified set of solar programs?

Comment:

The BPU can ensure continuity with the current market structure if it ties new initiatives with elements of current market design. The advantage of Rate Counsel's proposed transition identified in the response to Question 4 is that it ties the retirement of legacy SRECs to the current market design and sets payments based upon actual historic prices. As such, the transition will reduce any deviations between the current transition and the prior expectations of those holding legacy SRECs. The proposed model is based upon an average of prior market

experiences and tied to the SACP which has been in place since the origin of the solar set-aside within the New Jersey RPS.

(7) Are there approaches or concepts the Board should consider for early implementation as it explores new or modified solar incentive programs?

Comment:

Rate Counsel recognizes there may be a need for an interim program to sustain solar market development while new and more permanent competitively-based program ideas are studied and explored. Rate Counsel recommends that the Board consider an interim program, of no longer than two years, that is modeled after the SREC-Based Financing Programs conducted by Jersey Central Power and Light (“JCP&L”), Atlantic City Electric (“ACE”) and Rockland Electric Company (“RECO”). These programs were first initiated in 2009 and provided for long-term contracts for SRECs that the utilities purchased from solar projects selected through a competitive bidding process in their service territories.

Similar to the previous SREC-Based Financing Program, utilities would periodically issue RFPs to select competitively-bid solar projects with which to enter into fixed-price, long-term contracts. The total solicitation amount on an annual basis would have to be set at a dollar value such that the cost of the interim program and that of legacy projects does not exceed the cost cap. A Solicitation Manager would oversee the program and the auction process. Given that New Jersey stakeholders, (i.e., the Board, Staff, Rate Counsel, utilities and solar developers) all have experience with this program over the past decade, it should be a relatively straightforward and transparent process to implement. And importantly, this competitively-bid auction format conforms to the standards of “competitive processes,” “competitive procurement” and “encourage[s] and facilitate[s] market-based cost recovery through long-term contracts” as required by the Act.

- (8) As the Board begins to consider the structure of new or modified solar incentive programs, what goals or approaches are most important to assuring the long-term growth of a sustainable solar industry?**

Comment:

As required by legislation, the Board needs to ensure an orderly and transparent transition. As part of that process, the Board should refer back to the guiding principles of the Act and rely upon competitive processes to ensure the most cost-efficient procurement of solar and other Class I REC resources. The transition and any efforts moving forward should come at minimal ratepayer expense. The fact that the Legislature, and now the Board, finds that a change in the current solar market design is necessary indicates that the prior design has been inadequate, and the cost of this inadequacy has been paid for by ratepayers. This is simply not an equitable outcome. Creating additional and new preferences for solar developers, at the expense of ratepayers or even the development of other Class 1 renewables, should be avoided.

- (9) The Clean Energy Act requires the Board, when conducting a study on how to modify or replace the current SREC program, to ensure that the program will continually reduce, where feasible, the cost of achieving the solar energy goals set forth in the act. How can the Board best ensure that the new program will continually reduce the cost of the achieving the State's solar energy goals?**

Comment:

The Board needs to recognize two important economic facts. First, the cost of this transition will be determined by how the Board decides to close the current SREC program and define SRECs for the remainder of legacy projects' SREC-eligibility. Second, SREC holders, that can include but are clearly not limited to those owning or physically supporting a solar installation, have an incentive to get the most significant return they can get on their SRECs regardless of whether or not this return is "reasonable." Thus, the Board will likely have to "hard-wire" some kind of "cost reduction" outcome into its new market design.

Going forward, the most important concept in ensuring that new programs continually reduce the cost of achieving the State's solar energy goals is to incorporate competition. To the extent that new programs are needed, Rate Counsel supports using competitive bidding and other forms of market-based mechanisms for stimulating new solar development. Rate Counsel recognizes that the Clean Energy Act identifies some market segmentation of new programs to the extent these programs are needed. Rate Counsel cautions the Board to not overly segment the market and to set reasonable targets for segmentation that are consistent with prior experience. The Board has not been successful in the past in defining market segmentation goals, particularly with the long-term solar contracting program and utility-based programs. Setting unreasonable segment targets could lead to a shortfall in reaching the Clean Energy Act's solar energy goals.

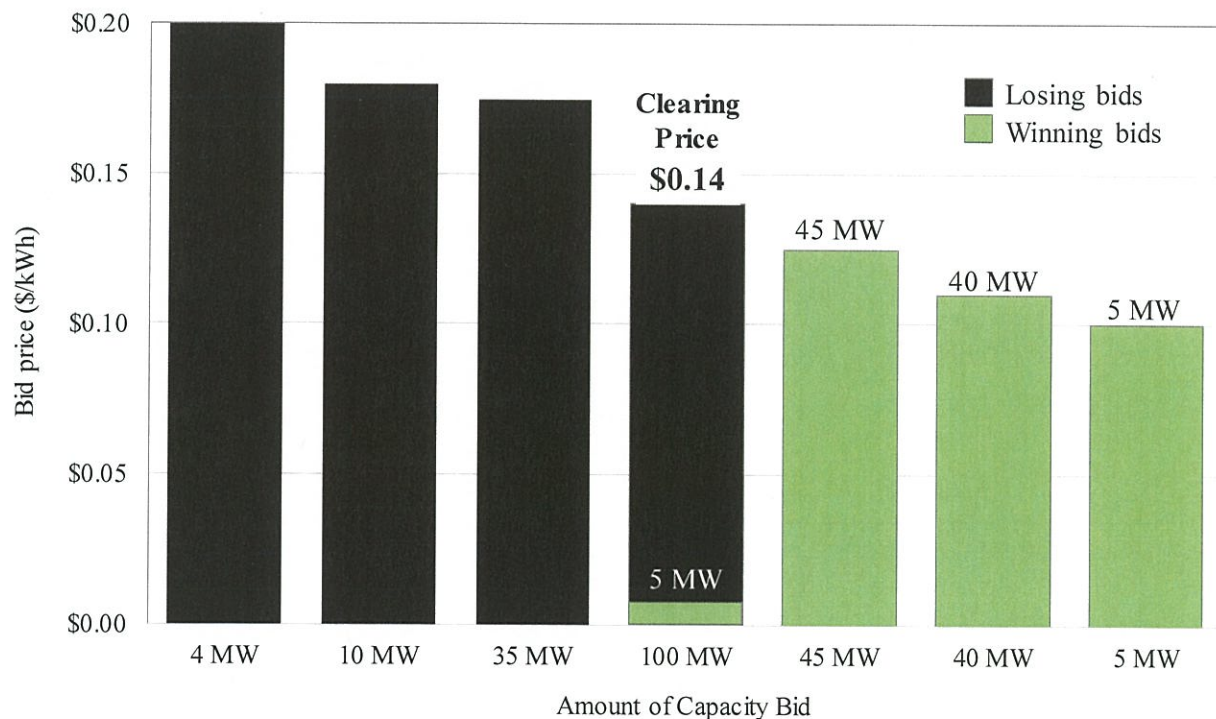
(10) What alternate models in other states or localities should the Board evaluate as it considers the structure of a new or modified solar program?

Comment:

Again, Rate Counsel reiterates the guiding principles of the Act and the notion of competitive processes, competitive procurement and the continual reduction of the cost of achieving solar energy goals. Rate Counsel recommends the Board study competitive procurement programs initiated in other states. One example is the Solar Massachusetts Renewable Target ("SMART") Program. Massachusetts launched the SMART Program in November 2017 as an incentive program designed to procure solar generating capacity based on long-term fixed-price contracts for projects less than 5 MW. The program is structured as an auction and had an initial request for proposal ("RFP") for projects larger than one MW and a total auction capacity of 100 MW. A price cap of \$0.15 per kWh was set for projects of 1-2 MW

and \$0.14 per kWh for projects of 2-5 MW.⁵ The competitively bid projects set the compensation rates for the program.

The figure below provides an example to show how projects with the lowest bids would be awarded contracts, at the clearing price of the last, or highest bid project up to 100 MW. In this example, contracts were awarded to projects bid at the lowest price of \$0.10 per kWh totaling 5 MW (on the right side of the graph). After that, projects bid at \$0.11 per kWh totaling 40 MW were awarded contracts, as well as projects bid at \$0.125 per kWh totaling 45 MW and projects bid at \$0.14 per kWh totaling 5 MW. All of these projects will receive the clearing price of \$0.14 per kWh.



The clearing price set by the large projects (greater than 1 MW) in the auction is also used to determine prices for smaller projects. The clearing price, or base rate is multiplied by a

⁵ SMART Competitive Procurement, available at: <https://www.mass.gov/service-details/smart-competitive-procurement>; and SMART Informational Webinar Q&A, available at: <https://www.mass.gov/files/documents/2017/05/zu/3-24-17-solar-massachusetts-renewable-target-q-and-a.pdf>.

compensation factor for projects depending on size. For instance, projects between 500 kW and 1,000 kW receive a rate that is 110 percent of the \$0.14 per kWh base rate, or \$0.154 per kWh. Similarly, small projects of less than 25 kW receive a rate that is double the base rate, or \$0.28 per kWh. Compensation adders are also established for other attributes such as location, community shared units, low income properties, public entities and storage.

- (11) Please provide general comments on any issues not specifically addressed in the questions above. Please do not reiterate previously made comments, and kindly keep these comments succinct.**

Comment:

Rate Counsel has nothing additional to add at this time but may supplement and/or expand upon these comments as it continues to collect information, conduct its own independent research, and reviews and evaluates the comments provided by other parties.