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March 21, 2014

Public Service Commission
861 Silver Lake Boulevard
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Dover, Delaware 19904

RE: Application of Delmarva Power and Light for Approval of the 2014 Program for the Procurement of Solar Renewable Energy Credits, PSC Docket No. 14-14
Petition of DNREC for Leave to Intervene

To Whom It May Concern:

I have enclosed the original and ten copies of DNREC's Petition to Intervene and Comments for filing with the Commission in the above matter.

Thank you.

Sincerely,

Devera B. Scott
Deputy Attorney General

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Enclosures
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BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF DELAWARE

IN THE MATTER OF THE APPLICATION OF DELMARVA POWER AND LIGHT COMPANY FOR APPROVAL OF THE 2014 PROGRAM FOR THE PROCUREMENT OF SOLAR RENEWABLE ENERGY CREDITS (FILED JANUARY 27, 2014)	)	PSC DOCKET NO. 14-41

COMMENTS OF ROBERT UNDERWOOD, ENERGY PROGRAM ADMINISTRATOR FOR THE DNREC DIVISION OF ENERGY & CLIMATE, ON DELMARVA POWER AND LIGHT'S APPLICATION FOR THE APPROVAL OF THE 2014 PROGRAM FOR THE PROCUREMENT OF SOLAR RENEWABLE ENERGY CREDITS

Dated: March 21, 2014

The Department of Natural Resources and Environmental Control ("DNREC") strongly supports Delmarva Power and Light's ("DPL") Application for the Procurement of Solar Renewable Energy Credits ("2014 Program"), and recommends its prompt approval. In DNREC's view, the 2014 Program is designed to maximize price discipline through competitive bidding while meeting the requirements of the Renewable Energy Portfolio Standards Act ("REPSA").

The 2014 Program is the result of two years of policy discussions among DNREC, DPL, PSC Staff, the Public Advocate and other stakeholders. Since the Pilot Program for the Procurement of Solar Renewable Energy Credits ("Pilot Program") was approved and implemented two years ago, DNREC has worked with DPL and the Taskforce to establish a steady demand for SRECs over several years using all competitive bidding. The 2014 Program is based on the template established last year, and is thus designed to maintain a stable, competitive market for the next several years.

The overall size of the auction has not changed, which will help to maintain a stable SREC market. Owners of existing systems will again be able to bid into the auction as a question of fairness and allowing a larger pool of sellers to compete. The 2014 Program does feature some incremental refinements from the 2013 Program, including reducing the effective number of tiers to ensure robust competition among small and mid-sized systems.

Approval of the 2014 Program will create a fair and competitive SREC market that will give all systems owners the opportunity to compete for long-term contracts and take advantage of the current oversupply of SRECs to continue to exert downward pressure on compliance costs.

BACKGROUND AND HISTORY

The Renewable Energy Taskforce ("Taskforce") was established by REPSA. As Energy Program Administrator for the DNREC Division of Energy & Climate, I serve as acting chair of the Taskforce. REPSA requires retail electric suppliers operating in Delaware to purchase energy from Eligible Energy Resources to meet a portion of their retail load. REPSA establishes a minimum requirement for the deployment of solar energy in Delaware, starting at 0.20 percent in compliance year 2011-12 and increasing to 3.5 percent by 2025.

The Taskforce's responsibilities under 26 *Del. C.* § 360 (d) (1) of REPSA include balancing a number of policy considerations:

a. Establishing balanced markets mechanisms for REC and SREC trading;

b. Establishing REC and SREC aggregation mechanisms and other devices to encourage the deployment of renewable, distributed renewable, and solar energy technologies in Delaware with the least impact on retail electricity suppliers, municipal electric companies and rural electric cooperatives;

c. After an analysis by the Taskforce, the annual progress towards achieving the minimum cumulative percentages for all renewable energy resources including, but not limited to, solar and other eligible energy resources and making appropriate recommendations based upon deliberate and factual analysis and study;

d. Minimizing the cost for complying with any portion of this subchapter based upon deliberate and factual analysis and study;

e. Establishing revenue certainty for appropriate investment in renewable energy technologies, including, but not limited to, consideration of long-term contracts and auction mechanisms;

f. Establishing mechanisms to maximize in-state renewable energy generation and local manufacturing; and

g. Ensuring that residential, commercial, and utility scale photovoltaic and solar thermal systems of various sizes are financially viable and cost-effective investments in Delaware.

In 2011, the Taskforce proposed the Pilot Program, which was considered and approved by the Commission in PSC Docket No. 11-339. Delmarva Power and Light conducted the Pilot Program auction in April of 2012.

The Taskforce reconvened after the auction to design a new procurement plan using the lessons learned from the Pilot Program and considering policy questions raised by DNREC, PSC Staff, the Public Advocate and other stakeholders. The 2013 Program, which was is the result of these deliberations, was approved by the Taskforce in August of 2012, was approved by the Commission on January of 2013 and went to market in April of 2013. The 2013 Program, which used competitive bidding in all tiers, resulted in significant cost savings from the Pilot Program.

The 2013 Program featured a balanced portfolio approach with competitive bidding by tiers for new systems (4,000 SRECs), existing systems (3,000 SRECs), and spot auction purchases (roughly 1,000 SRECs):

Category	Tier	System size	SRECs
New	Tier N-1	> 0 to 30 kW	1,200
New	Tier N-2	> 30 kW to 200 kW	1,400
New	Tier N-3	> 200 kW to 2 MW	1,400
Existing	Tier E-1	> 0 to 30 kW	1,500
Existing	Tier E-2	> 30 to 2 MW	1,500

Successful bidders were awarded contracts for 20 years with the first 7 years at competitively bid price, and the last 13 years at $50/SREC. DPL also procured a portion of its requirement through a spot auction, consistent with a portfolio approach of short-term and long-term purchases, and giving DPL some needed flexibility in meeting its annual SREC requirements.

The 2013 Program resulted in significantly lower SREC prices, including low bids of $0 in four of the five tiers:

Tier	Low bid	Weighted average	High bid
Tier N-1	$0.00	$46.48	$62.87
Tier N-2	$0.00	$86.60	$140.00
Tier N-3	$49.00	$51.13	$63.90
Tier E-1	$0.00	$34.59	$50.00
Tier E-2	$0.00	$39.29	$50.00

The spot auction conducted in May of 2013 produced a weighted average price of $33.94/SREC, similar to the results of Tiers E-1 and E-2.

The PSC consultant's report, "Evaluation of the 2013 Delaware SREC Procurement Program" ("Evaluation") highlighted the benefits of increased competition in the auction:

> The re-design of the program from the 2012 pilot program, including (a) the reliance on competitive bidding rather than a combination of competitive bidding for large projects and administratively-set pricing for small projects and (b) the inclusion of owners of existing projects as eligible bidders contributed to much lower costs, which is beneficial from the ratepayers' standpoint, and an increase in perceived fairness in the program from a project owner's perspective. At the same time, the statutory-based incentives for Delaware workforce and manufacturing provided the projects that planned to use them a competitive advantage, as they were designed to do, without driving the results of the process in a manner that undercut the benefits of competitive bidding from a ratepayer perspective. (Evaluation, p. 51)

The Taskforce met five times after the 2013 auction to review the results of the 2013 Program and design the next auction. The 2014 Program, which is the result of those deliberations, is built on the template created by the 2013 Program, with several notable changes.

THE 2014 PROCUREMENT PROGRAM

The 2014 Program further refines the auction structure established in the 2013 Program. These refinements are designed to further enhance the competitive nature of the auction while being mindful of the policy requirements of 26 *Del. C.* § 360 (d) (1), including diversity of system size, promoting distributed solar energy installations, and creating a balance between residential, commercial and utility scale systems. The 2014 Program will again allow owners of existing systems to sell into the SREC market, effectively reduce the number of tiers, allow some bids from smaller tiers to bid up into higher tiers and provide for flexibility by again providing for DPL to procure some SRECs through a spot auction.

While the overall number of SRECs to be procured in the auction will not change, three tiers (Tiers N-1, E-1 and E-2) will compete against each other for one allocation of SRECs:

Category	Tier	System size	SRECs
Smaller new and existing systems in one combined tier	Tier N-1 Tier E-1 Tier E-2	> 0 to 30 kW > 0 to 30 kW > 30 to 2 MW	3,800
New systems	Tier N-2	> 30 kW to 200 kW	1,600
New systems	Tier N-3	> 200 kW to 2 MW	1,600

The 2014 Program continues a strategy of setting overall procurement at 8,000 SRECs annually for several years, though demand will fluctuate somewhat from year to year. Basing the 2014 Program on the 2013 Program will promote stability in the SREC market, one of REPSA's statutory requirements. These changes will enhance competition by being open to SRECs from existing systems and by having Tiers N-1, E-1 and E-2 compete directly for one pool of SRECs.

SRECs from Existing Systems

The 2014 Program, like the 2013 Program, is open to owners of existing systems as a matter of equity and to maximize competition by promoting the greatest participation in the auction. The 2012 Pilot Program was closed to systems with an interconnection date earlier than December 1, 2010, which for a time effectively eliminated any functioning market for SRECs from existing systems. In response, the 2013 Program included two tiers, E-1 and E-2, for existing systems up to 2 MW, which attracted 516 bidders. The 236 winning bids came in with weighted average winning bids lower than any of the three tiers for new systems. Clearly the inclusion of existing systems was successful in promoting market equity and putting downward pressure on SREC prices.

Changes to the Tier Structure

The revised tier structure will benefit ratepayers by making most of falling installation costs. Tiers N-1, E-1 and E-2, will compete directly for a slightly smaller allocation of SRECs. Losing bids from Tiers N-1 and N-2 will be able to compete against bids in higher tiers. By having bidders from N-1, E-1 and E-2 compete directly, the 2014 Program maintains a commitment to offer existing systems the chance to compete for long-term contracts while using the broadened supply of SRECs to continue to exert downward pressure on SREC prices.

This structure was carefully considered by the Taskforce to provide for diversity among system sizes while using bids from the smaller and more competitive tiers to impose price discipline on larger tiers. The fixed SREC payments in years 8 through 20 has been reduced from $50 to $35 reflecting the lower bid prices in the 2013 Program.

The effective consolidation of tiers will allow DPL to take advantage of increased competition while maintaining a commitment to promoting the development of smaller and

larger systems. The 2014 Program will also allow losing bids in Tiers N-1 and N-2 to compete against Tier N-3 bids, creating further competitive pressures among new systems. This consolidated tier structure meets REPSA requirements while increasing competition between new and existing systems of different sizes. This will provide price discipline to ensure that no single tier comes in too high, ensure balance between smaller and larger photovoltaic systems, and provide an ongoing opportunity for owners of existing systems.

DNREC sees little risk that the bids in the combined tier for N-1, E-1 and E-2 will lead to higher compliance costs for ratepayers. First, the allocation of 3,800 SRECs for the combined tiers is smaller than the comparable allocation of a total of 4,200 SRECs for the three tiers in the 2013 Program.

Second, the pace of development of smaller solar PV systems seems to have accelerated, suggesting that the number of bidders in these tiers is likely to be significantly larger, not smaller. The DPL Green Energy Fund, which is administered by the Division of Energy & Climate, offers grants for PV systems up to 50 kW. The Green Energy Fund saw a sharp increase in the number of applications for solar PV grants in 2013 compared to 2012:

Year	# of applications	kW
2012	163	1,204
2013	270	2,063
Increase	66%	71%

This increase in applications suggests that there will be more, not less, competition for the 3,800 SRECs in the combined tier for N-1, E-1 and E-2.

Third, having these three tiers compete as one will ensure that higher bids in any one tier will be less likely to be awarded contracts. Considered together, the slightly smaller allocation of SRECs, growing development of smaller PV systems, and competition between previously

separate tiers are likely to result in sufficient price discipline to protect ratepayers. It should be emphasized that every change to the auction is designed to enhance competition and reduce cost.

DPL will procure a portion of its SREC requirement through the spot market, consistent with a portfolio approach of short-term and long-term purchases. These spot market purchases will provide an alternative market for system owners without long term contracts and give DPL some needed flexibility in meeting its SREC requirements.

RELATED POLICY DEVELOPMENTS

It is worth noting that the PSC Evaluation also touched on an important related area, the structure of the Green Energy Fund:

> Some of the possible approaches raised in this report include … (b) modifying the Green Energy Program (at least, Delmarva's version of it) to provide an alternative for owners of new residential-scale projects to participating in the SREC procurement program (which could also reduce the cost of administering the SREC procurement program). (Evaluation, p. 51)

Working with the Sustainable Energy Utility ("SEU"), DNREC is doing just that. Starting after the conclusion of the 2014 Program, the SEU will offer a two-year grant program, funded by the Regional Greenhouse Gas Initiative, to effectively buy SRECs upfront from new systems no larger than 50 kW. This will reduce transaction costs related to long-term SREC contracts for small systems and eliminate the need for Tier N-1 in auctions over the next two years. At the same time, the DPL Green Energy Fund will be adjusted to reduce the grant amount per kW, recognizing the changing economics of solar PV. The new SEU program and revised Green Energy Fund program are two more ways in which we are reducing the cost per kW of promoting solar PV in Delaware.

Looking ahead, the combined SEU/DPL grant program is expected to replace Tier N-1 for the next two years, reducing transaction costs and further opening up opportunities for new systems.

SUMMARY AND CONCLUSION

The 2014 Program, which is based on the work of the Renewable Energy Taskforce, reflects a broad consensus of stakeholders, responds to policy concerns and questions raised by DNREC, PSC Staff, the Public Advocate and others following the implementation of the 2012 Pilot Program and the 2013 Program, and meets the requirements of the Renewable Energy Portfolio Standards Act. Approval of the 2014 Program will result in an ongoing evolution of a stable, fair and competitive SREC market that will give new and existing systems owners the opportunity to compete for long term contracts, take advantage of the continuing oversupply of SRECs to exert downward pressure on compliance costs, and accommodate related policy efforts to build a stable and competitive market for the next several years.

DNREC strongly supports the 2014 Program as just, fair and in the public interest, and recommends its prompt approval. DNREC looks forward to working with the members of the Taskforce to monitor and evaluate the 2014 Program, and is committed to continue to work together to build a strong, cost effective, and sustainable solar energy industry in Delaware.

Respectfully submitted,

Robert Underwood
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CERTIFICATE OF SERVICE

I certify that on March 21, 2014, I caused the *Comments of Robert Underwood, Energy Program Administrator for the DNREC Division of Energy & Climate, on Delmarva Power and Light's Application for the Approval of the 2014 Program for the Procurement of Solar Renewable Energy Credits* to be served by Electronic Mail to the attached service list:

STATE OF DELAWARE
DEPARTMENT OF JUSTICE

/s/ Devera B. Scott

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SERVICE LIST – DOCKET NO. 14-41

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