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

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REPORT FROM THE DELAWARE PUBLIC SERVICE COMMISSION STAFF ON DELMARVA POWER AND LIGHT COMPANY'S APPLICATION FOR APPROVAL OF THE 2014 PROGRAM FOR THE PROCUREMENT OF SOLAR RENEWABLE ENERGY CREDITS

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I. EXECUTIVE SUMMARY

On January 27, 2014, Delmarva Power and Light Company ("Delmarva") filed with the Public Service Commission (the "Commission") an Application for Approval of the 2014 Program for the Procurement of Solar Renewable Energy Credits (the "2014 Program") as well as Delmarva's Report in Support of its Application for Approval of the 2014 Program for the Procurement of Solar Renewable Energy Credits. This procurement is subsequent to the Commission's approved of the 2012 Pilot Program (the "Pilot Program")[1] and the 2013 Procurement Program for the Procurement of Solar Renewable Energy Credits (the "2013 Program")[2].

Delmarva's 2013 Program solicitation occurred March 25 to April 12, 2013. The results of the auction were reviewed by the Renewable Energy Task Force (the "RETF") as well as by an independent consultant, New Energy Opportunities, Inc. ("New Energy"). New Energy submitted a report to the Commission on August 7, 2013, and a corrected version on September 18, 2013.

The 2014 Program is based upon the Pilot Program and the 2013 Program, which were both approved by the Commission in Order Nos. 8093 and 8045 respectively at the recommendation of the RETF[3] and Commission Staff ("Staff"), but the 2014 Program contains some slight variations. To contrast the two programs, in the 2014 Program: (a) Tiers N-1, E-1 and E-2 are being combined for solicitation purposes only, (b) quantities procured in each tier(s) have changed but not in total, (c) the 13 year fixed price per SREC is set at $35.00 per Solar Renewable Energy Credit ("SREC") versus the prior auction price of $50.00 per SREC, and (d) a mechanism for resolution of bidding ties is weighted towards in-state bonuses for manufacturing and workforce.

The 2014 Program continues to pursue the goals set forth in the prior procurement programs and in the statute.[4] The 2014 Program continues to have a balanced portfolio approach by including new and existing systems as well as spot market purchases. Similar to the last auction, a new system is defined as having a final interconnection approval date after the preceding auction process (i.e., April 12, 2013).

The 2014 auction will cover only one year, but each contract will have a term of 20 years, which is the same term that was used in the previous two programs. The competitively bid price will be paid for the first 7 years, and $35.00 per SREC will be paid for years 8 to 20. This is in contrast

[1] The Commission approved the Pilot Program via Order Nos. 8075 (November 8, 2011) and 8093 (December 20, 2011) in PSC Docket No. 11-399.
[2] The Commission approved the 2013 Program via Order Nos. 8281 (January 22, 2013) and 8450 September 10, 2013) in PSC Docket No. 12-526.
[3] The Public Service Commission Appointee abstained from voting on the 2014 Program.
[4] 26 *Del. C.* §360(d).

to the 2013 program in which $50.00 per SREC was paid for years 8 to 20. This decrease in price per SREC for years 8 to 20 represents the decrease in installed system costs and maintenance over the lifetime of the system which benefits ratepayers by decreasing contract costs making the overall procurement of SRECs more cost effective for the ratepayer.

The RETF approved the continued use of the Sustainable Energy Utility, Inc. (the "SEU") and their administrative contractor[5] for the 2014 Program. Delmarva stated that they found the SEU and its contractor to be efficient and performed the role well in administering the Pilot Program and the 2013 Program. One of the reasons the RETF approved the continued use of the SEU and its administrative contractor was based on the supposition that using the same process promotes consistency and lessens public confusion. The costs associated with the 2014 Program will be subject to Commission review and approval at the time Delmarva seeks to recover the 2014 Program expenses. Staff recommends that any Commission order approving the 2014 Program should state that to fully recover the program related costs, Delmarva will have to justify any SEU-related costs above what ratepayers would have paid if Delmarva had managed the program and auctions itself and had not used the SEU or its administrative contractor.

In this report we provide the legislative and procedural background leading to the proposed 2014 Program, the development of the RETF's recommendations, address the merits of the 2014 Program's key features, and address changes from the 2013 Program and the 2012 Pilot Program. Finally, Staff makes its recommendations for the 2014 Program as well as considerations for future SREC programs.

In summary, Staff recommends approval of the 2014 Program with Staff's recommendations as outlined in the section entitled Conclusions and Recommendations.

[5] InClime, the administrative contractor, is an affiliate of SRECTrade and has been established solely to operate utility and public agency renewable procurement programs. InClime, Inc. will be run by Kevin Quilliam who oversaw the SREC auctions for the Pilot Program and the 2013 Program.

II. LEGISLATIVE AND PROCEDURAL BACKGROUND

A. LEGISLATIVE BACKGROUND

In 2007, the Governor signed into law the Renewable Energy Portfolio Standards Act (the "REPSA"), 26 *Del. C.* §§ 351-364. Its purpose was to "establish a market for electricity from [renewable energy resources] in Delaware, and to lower the cost to consumers of electricity from these resources." [6] REPSA requires retail electricity suppliers to purchase energy from Eligible Energy Resources ("EERs")[7] to meet a portion of their annual retail load. REPSA sets forth the minimum percentage of retail energy sales to end-users that must come from EERs, including solar photovoltaics ("solar PVs"). The percentage of retail energy to be supplied from EERs increases over time, reaching a requirement of 25% in 2025. In July 2011 further revisions to REPSA were enacted and made Delmarva responsible for procuring SRECs and Renewable Energy Credits ("RECs") necessary to comply with the REPSA's requirements for the delivery of energy to its distribution customers.

In July 2010 the REPSA was amended to establish the RETF, which is an eleven-member taskforce established "for the purpose of making recommendations about the establishment of trading mechanisms and other structures to support the growth of renewable energy markets in Delaware." [8] This group has met periodically since its inception and, as directed in the REPSA, it has evaluated and made recommendations about the previous procurement programs to the Commission.

B. THE 2012 PILOT PROGRAM AND THE 2013 PROGRAM

On November 8, 2011, the Commission approved the 2012 Pilot Program with certain modifications made by Staff. Per Order No. 8093 the Commission retained the Meister Consultants Group, Inc. ("Meister") to conduct an independent review of the Pilot Program. Meister provided the Commission with its independent review in the form of a report dated August 3, 2013, which made several recommendations for changes to the Pilot Program going forward.

On January 22, 2013, the Commission approved the 2013 Program. The 2013 Program included several modifications to the Pilot Program in an effort to promote the Program's goals of creating a market for SRECs in Delaware and providing a mechanism for the procurement of SRECs to ensure that retail electricity suppliers meet the requirements set forth in the REPSA. The Commission further ordered that New Energy be retained as a consultant to perform an independent review of the 2013 Procurement Program and the solicitation of bids under the Program for compliance with the recommendations of Staff and the RETF. New Energy

[6] 26 *Del. C.* §351(c).
[7] This term is defined in the REPSA.
[8] 26 *Del. C.* §360(d).

provided the Commission with its independent review in the form of a report dated August 7, 2013, and revised September 18, 2013, in which it made its recommendations for a path forward.

C. DEVELOPMENT OF THE 2014 PROGRAM

Pursuant to Order No. 8450, the Commission engaged New Energy to conduct an independent review of the 2013 Program and the bid solicitations under it. New Energy produced a report in which it stated that the solicitation was conducted in a professional manner and the responses to the solicitation request were robust, with each of the tiers oversubscribed. In its report New Energy made several recommendations for enhancements to the 2013 Program, including: A simplified process and standard transfer agreement, advance notification of the auction to promote participation, and an information workshop aimed at non-industry participants.[9] The RETF met five times after the 2013 auction to review the results of the auction and to discuss proposed improvements and recommendations from New Energy's report, the RETF members, and the public.

III. MERITS OF 2014 PROGRAM

A. INTRODUCTION

The purpose of the 2014 Program is to continue the legislative goals of creating a market for SRECs in Delaware and providing a mechanism for the procurement of SRECs to ensure that retail electricity suppliers meet the requirements set forth in the REPSA. Identical to the previous SREC procurement programs, the 2014 Program will cover only one year, the 2014 compliance year[10]. However, in order to incorporate participant feedback and results from the 2013 Program, recommendations of the Taskforce, the public, and suggestions made in New Energy's Report (Exhibit A of the "Application"), several key changes have been made in the proposed 2014 Program. The proposed modifications are detailed in this section.

B. TOTAL AMOUNT OF SRECS TO BE PROCURED

Delmarva proposes to purchase 8,000 SRECs (for 20 years) through the 2014 Program. The structure in which these SRECs will be purchased encompasses a portfolio approach as in the last procurement. This approach allows for greater opportunity of diversity among the program participants by allowing both new and existing systems to participate, while also allowing Delmarva to purchase SRECs directly from the spot market at prices that may be lower than long-term contract prices. Therefore, all RETF participants agree that this allows for a balanced approach to minimizing the cost of the program. The 2014 Program will take a tiered approach, as in past auctions; however, it condenses the number of tiers and combines tiers N-1, E-1, and E-2 for the solicitation. Delmarva will procure SREC's in the following quantities:

[9] Report from New Energy Opportunities to the Delaware Public Service Commission on the Evaluation of the 2013 Delaware SREC Procurement Program (August 7, 2013, and corrected on September 18, 2013), p 36.
[10] 2014 Compliance Year is June 1, 2014, to May 31, 2015.

Tiers N-1, E-1, E-2[11]:	3,800 SRECs
Tier N-2:	1,600 SRECs
Tier N-3:	1,600 SRECs
Spot Market Purchases:	1,000 SRECs
	8,000 Total SRECs to be procured

The SRECs Delmarva will procure from New Systems and Existing Systems are further broken into tiers, which are described in the next section of this report.

C. TIERS

In order to increase the likelihood that a wide variety of residential and commercial projects have an opportunity to participate in the 2014 Program, the RETF established distinct tiers of solar generation units (based on the date of interconnection approval and nameplate capacity). The tier designations are as follows:

[11] *State of Delaware 2014 Program for the Procurement of Solar Renewable Energy Credits*, pg. 7, states as follows: "Eligible New Systems are systems with final interconnection approval after the first date of the preceding auction process (i.e. April 12, 2013, for compliance year 2014)." "Eligible Existing Systems are systems with final interconnection approval before the first date of the preceding auction process (i.e. prior to April 12, 2013)."

	New Systems[12]
Tier	Nameplate Rating (DC at STC)
N-1	Less than or equal to 30 kW
N-2	Greater than 30 kW but less than or equal to 200 kW
N-3	Greater than 200 kW but less than or equal to 2 MW
	Existing Systems[13]
Tier	Nameplate Rating (DC at STC)
E-1	Less than or equal to 30 kW
E-2	Greater than 30 kW but less than or equal to 2 MW

As mentioned earlier, the 2014 Program allows for an additional 1,000 SRECs to be purchased from the spot market. The spot market procurement will be open to systems already built, and Delmarva will procure short-term contracts in a similar manner to its current practices.

D. BIDDING TIES

Additional incentives for a workforce and for an equipment bonus were added as an amendment to REPSA in 2010. This was accomplished through an additional 10% manufacturing[14] credit towards meeting the REPSA goals if a solar facility sited in Delaware has at least 50% of the cost of its renewable energy equipment manufactured in Delaware. An additional bonus of 10% would be available if 75% of the workforce[15], used to install the project is Delaware labor or if the installing company employed, in total, a minimum of **75%** Delaware labor[16]. This amendment also legislatively mandated the RETF to "establish mechanisms to maximize in-state solar renewable energy generation and local manufacturing."[17] The 2014 Program reinforces

[12] *State of Delaware 2014 Program for the Procurement of Solar Renewable Energy Credits*, pg. 7, provides as follows: " Eligible New Systems are systems with final interconnection approval after the first date of the preceding auction process (i.e., April 12, 2013 for compliance year 2014)."

[13] *State of Delaware 2014 Program for the Procurement of Solar Renewable Energy Credits*, pg. 7, "Eligible Existing Systems are systems with final interconnection approval before the first date of the preceding auction process (i.e., April 12, 2013 for compliance year 2014)."

[14] 26 *Del. C.* §356(d)

[15] 26 *Del. C.* §356(e)

[16] A potential total bonus of 20% is possible if the system qualifies for both bonuses.

[17] Senate Substitute Bill No. 1 for Senate Bill No. 299 adding 26 *Del. C.* §356(d)(c).

these mechanisms by considering the bonus configuration when breaking any ties between bidders, i.e. when the solicitation is oversubscribed. This works as follows: (a) Selecting all applicants that claimed the Delaware equipment and Delaware workforce bonus, if the solicitation is still oversubscribed (b) holding a lottery among only the applicants that claimed the Delaware equipment and workforce Bonus, if there is still an oversubscription, (c) then a 5-day period remedy period would be allowed for those bidders who want to revise their bids. After the 5-day period the SEU will award one or more SREC Transfer Agreements to some or all of the bidders in the following manner: (1) award revised, reduced bids first from the lowest price bid until the solicitation is fully subscribed or a de minimis portion remains, (2) conduct a lottery involving the applicants that claimed the Delaware Equipment and Delaware Workforce Bonus, and (3) choose among the remaining applicants who did not claim either the Delaware equipment bonus nor Delaware workforce bonus.

IV. CONCLUSIONS AND RECOMMENDATIONS

Staff supports the key elements of the 2014 Program but suggests a few modifications. Staff agrees that the overall program continues to promote competitive pricing and seems to be more favorable to ratepayers. The new and existing system tier structure provides an equitable opportunity for all systems to participate in the auction and provides a balancing mechanism to the market.

Staff recommends that customer education for owners of residential systems and other non-industry participants be a focus in the 2014 Program. As indicated in New Energy's report, the majority of survey participants (90%)[18] were owner-operators. The survey results indicated these participants lacked knowledge and expressed concern that the process was too complicated. Staff suggests that a webinar be held in advance of the solicitation, as has occurred in the past, with more emphasis on non-industry participants. Staff also recommends an electronic presentation be included on the auction site in order to accommodate owners that may not have been able to participate in the webinar or would like to review the webinar multiple times. Staff encourages the SEU (with its administrative contractor) to perform this customer education in the most cost effective manner possible. The administrative contractor should be available to answer questions via email or phone, as in the past. In addition, the administrative contractor should continue to include on the SEU's website the FAQs section.

Staff agrees that the $35 per SREC back end price is an adequate return to investors to maintain the system in the out years given the decline in inverter costs. Staff conducted an analysis of average residential system sizes in Delaware from inception (2007) to the present date, including systems that will be considered "new" for the 2014 solicitation. The analysis shows that the

[18] Report from New Energy Opportunities to the Delaware Public Service Commission on the Evaluation of the 2013 Delaware SREC Procurement Program (August 7, 2013, and corrected on September 18, 2013), p 19.

average residential system size for systems registered in Delaware is approximately 8 kW, which is also in line with figures used by New Energy. The analysis shows that net metered customers with an average system size of approximately 8 kW can expect a per month bill credit of approximately $12.17 (or $146 annually). Staff believes that this return, coupled with the long-term contract revenue stream from the sale of the SRECs, is adequate to cover future maintenance costs.

Overall costs of installing solar PV systems have declined in recent years. Although these costs are projected to level off, costs for specific types of technology, inverters, mounting hardware, labor and other costs are expected to continue to decline.[19] This decline in costs is due largely to the high concentration of solar PV installations in recent years. It is anticipated that there will be an increased emphasis on technology advances to parts, other than just modules, that are necessary to maintain the systems and will further decrease overall system costs. Staff recommends that the next independent consultant review the appropriate costs for SRECs in years 8 to 20 in the consultant report given the decline in system costs.

The Comments filed by the Public Advocate supported the proposed 2014 Program if it were modified to allow lower bids from N-2 and N-3 tiers to replace higher bids from E-1and E-2. The RETF recommended losing bids from lower tiers (N1 and N2) be able to compete against bids from N3. The RETF agreed that the consolidation of tiers from N-1, E-1 and E-2 to one tier in the 2014 Program will in effect put a downward pressure on price. N-3 systems are larger in size (200 kW but less than or equal to 2 MW), should be able to derive economies of scale and take advantage of different tax structures. Therefore, larger systems should not have the opportunity to take from the smaller tiers that do not have the same economics. Because the RETF considerably discussed the tiering structure, Staff defers to the decision of the RETF on this issue and does not support the Public Advocate's suggestion.

If the Commission wishes to give more weight to the argument made by the Public Advocate, Staff would be amenable to a compromise position. As an alternative, Staff suggests that Tiers N-2 and N-3 be allowed to replace higher bids in Tier E-2. These systems are similarly sized with similar economics of scale.

Staff also recommends that an SREC Auction Application fee structure be implemented as a mechanism to offset some of the administrative costs of the auction which ratepayers may ultimately pay. Assessing application fees on auction participants is being adopted in other jurisdictions, such as New Jersey, as a mechanism to offset administrative costs. New Jersey has gone one step further and implemented three additional fees paid by winning bidders: (a) An administrative fee which is charged to each SREC seller and is a per SREC sold charge; (b) an SREC transaction fee which is charged to each SREC seller and is a per SREC sold charge; and (c) an assignment fee which is only paid if the seller is seeking assignment of the agreement, in

[19] Lawrence Berkley National Laboratory, *Tracking the Sun VI, An Historical Summary of the Installed Price of Photovoltaics in the United State from 1998 to 2012* (July 2013), p. 1.

which case they would be responsible for the assignment fee and any additional costs incurred by the Purchaser.[20] Staff's proposed fee structure is based on tiers:

New System Tiers	[illegible]
N-1 (0-30 kW)	$ 25.00
N-2 (>30-200 kW)	$ 50.00
N-3 (>200-2000 kW)	$ 75.00
Existing System Tiers	
E-1 (0-30 kW)	$ 25.00
E-2 (>30-2000 kW)	$ 50.00

Staff recommends that the SEU include a provision in the Procurement Program Bid Application and/or the Transfer Agreement that authorizes the SEU to not accept bids where there is evidence of anti-competitive behavior. As the SREC Program matures, there may be a shift in participation in the auction resulting in a reduced number of competitive bids. This smaller pool of potential bidders, as stated in the New Energy Report, could lead to upward pressure on pricing and gaming of the system.[21]

Staff also recommends that an independent contractor evaluate the 2014 Procurement based on, but not limited to, the following criteria, many of which are some of the same metrics used to evaluate the previous programs:

- The level of participation in the solicitation and whether it was robust;
- The effect of the SEU's involvement in and administration of the 2014 Program;
- Comparison of costs associated with the SEU's administration with similar programs administered by either a third party or utilities in other jurisdictions;
- The results of the post procurement survey;
    - Participant response to overall solicitation program administration;
    - Participant response to adequacy of the solicitation advertising;
    - Participant response to adequacy of the customer education in regards to the solicitation;
- Whether the solicitation was handled in a fair and equitable manner;

[20]State of New Jersey, Board of Public Utilities, Docket No. E012090799, Order dated December 18, 2013.
[21] Report from New Energy Opportunities to the Delaware Public Service Commission on the Evaluation of the 2013 Delaware SREC Procurement Program (August 7, 2013, and corrected on September 18, 2013), p 45.

- If not implemented in the 2014 solicitation, whether there should be for all solicitation participants an application fee structure to offset on-going administrative costs; and
- For winning bidders in the solicitation, whether there should be a per SREC fixed charge to assist in recovery of administrative costs.

As noted in the prior dockets, this docket does not include cost recovery of the 2014 Program. Since this would be the third year of administration, Staff expects to see some economies of scale in the monthly charges and SREC fees charge by InClime, Inc.[22] and the SEU. Staff recommends that any Commission order approving the 2014 Program include a requirement that before Delmarva can fully recover the 2014 Program- related costs, it must justify any SEU-related costs above what ratepayers would have paid had Delmarva managed the solicitation itself and not used the SEU as an administrative intermediary.

Staff recommends that the Commission require Delmarva to file for the 2015 Program on or before December 05, 2014 so that sufficient time is available to publicize the auction and educate the potential SREC Auction participants.

Staff recommends that for next year's auction procurement, the SEU be required to submit an RFP for the administrative contractor. This is not an indication that Staff believes that the SEU's administrative contractor is not effective; however, Staff believes that since the costs of administering the program can be a pass-through to ratepayers, the onus should be on the SEU to demonstrate that it is using a competitive process and utilizing the most reasonably cost efficient contractor.

Staff suggests that if the Public Advocate wishes to pursue the 2015 Procurement Program goals discussed in the written comments submitted in this docket that might be accomplished through discussions with the RETF.

[22] InClime, Inc. is a separate corporation, a subsidiary of SRETrade that has been established solely to operate utility and public agency renewable procurement programs. InClime, Inc. will be run by Kevin Quilliam who oversaw the SREC auctions for the Pilot Program and the 2013 Program.