

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 SOLAR RENEWABLE)
ENERGY CREDIT CONTRACTS AS SREC) PSC DOCKET NO. 10-198
SUPPLY SOURCES FOR STANDARD OFFER)
SERVICE CUSTOMERS (Filed June 1, 2010)

FINAL FINDINGS, OPINION AND ORDER NO. 7836

BEFORE COMMISSIONERS:

ARNETTA McRAE, CHAIR
JOANN T. CONAWAY, COMMISSIONER
JAYMES B. LESTER, COMMISSIONER
J. DALLAS WINSLOW, COMMISSIONER
JEFFREY C. CLARK, COMMISSIONER

APPEARANCES:

FOR THE APPLICANT, DELMARVA POWER AND LIGHT COMPANY:

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FOR THE DELAWARE SUSTAINABLE ENERGY UTILITY:

Francis J. Murphy, Jr., Esquire
MURPHY & LANDON

FOR THE DELAWARE SOLAR ENERGY COALITION:

Dale Davis, President

PROCEDURAL BACKGROUND

1. On June 1, 2010, pursuant to Section 1007 of the Electric Utility Retail Customer Supply Act ("EURCSA") and the Renewable Energy Portfolio Standards Act, 26 Del. C. §§351 *et seq.* ("REPSA"), Delmarva Power and Light Company ("Delmarva") applied to the Delaware Public Service Commission (the "Commission") for approval of two Solar Renewable Energy Credit ("SREC") contracts for the procurement and sale of SRECS necessary to serve its standard offer service ("SOS") customers. With its application (Ex. 2)¹, Delmarva submitted testimony from Glenn A. Moore, Vice President of Delmarva's New Castle Region (Exs. 3 and 3A); William R. Swink, Manager of Energy Transactions for PHI's utility divisions (Ex. 4); Francis Hodsoll, Vice President of Pace Global Energy Services Inc. ("Pace"), the Asset and Energy Manager for the City of Dover ("Dover") (Ex. 5); and Joe Gorberg, Senior Vice President - Renewable Energy at LS Power. (Ex. 6).

2. The first contract was a 20-year contract with White Oak Solar Energy, LLC ("White Oak"), an affiliate of LS Power Development, LLC. Pursuant to this contract, Delmarva will purchase from White Oak the SRECs and all other environmental attributes (collectively, the "Attributes") associated with approximately 70% of the annual output of the solar facility to be built by White Oak in Dover (the "Sun

¹Twelve exhibits were marked and introduced into evidence at the August 17, 2010 evidentiary hearing. In addition, the record was left open for the purposes of introducing two additional exhibits, the revised versions of the White Oak Contract and the SEU Contract.

Park"), less the Attributes associated with up to 5,500 MWh/year to be purchased by the Sustainable Energy Utility ("SEU") during each of the first four years of the Sun Park's commercial operation, at the price of \$216.70 per SREC/MWh (the "White Oak Contract"). Delmarva will purchase the Attributes associated with up to 14,500 MWh/year for the first four years and up to 16,500/MWh year thereafter; however, if more Attributes are available after Dover and the SEU have received their respective allocations, Delmarva may purchase all or any portion of the remaining Attributes at the contract price. Delmarva is not obligated to purchase any Attributes before December 1, 2010. (Ex. 3 at 8).

3. According to Delmarva, there was a risk that some of the Sun Park SRECs to be purchased in the initial years would expire before Delmarva could use them to satisfy its REPSA obligation. (*Id.* at 11).² Thus, Delmarva entered into a contract with the SEU, whereby the SEU would purchase 5,500 MWh of SRECs (40% of Delmarva's 70% share) from the Sun Park in each of the first four years (22,000 SRECs total), and Delmarva would repurchase 11,000 SRECs in each of years 5 and 6 at \$249/SREC (the "SEU Contract"). (*Id.* at 12). During the course of this proceeding, modifications were made to the SEU Contract for which Delmarva seeks approval and it is that revised SEU Contract, as described below, that is before the Commission. As a result of the changes to the SEU Contract, Delmarva was required to make nominal

² Under 26 Del. C. §360(a), SRECs have a three-year life; however, Section 360(c) gives the SEU the statutory ability to bank SRECs, and their expiration is tolled while they are banked with the SEU.

changes to the White Oak Contract, which changes are included in the White Oak Contract that is now before the Commission for approval.

4. Delmarva requested expedited consideration of its application, and subsequently filed a motion seeking approval before July 31 to accommodate White Oak. White Oak bears the risk of cost escalation because price and financing terms for the Sun Park cannot be locked in until the Commission approves the White Oak Contract. (Ex. 6 at 7-8). Additionally, White Oak believes that the Sun Park will be operational by July 2011 if approval is received by July 31, which is important because July is a primary month for solar generation. (*Id.* at 8).

5. By Order No. 7788 dated June 15, 2010, we opened this docket to consider the application and approved an expedited schedule that established deadlines of June 30 for intervention petitions; July 12 and 15, respectively, for Delmarva's responses to Staff and intervenor discovery; August 3 for Staff's report on the proposed contracts; August 10, 2010 for parties' comments on the Staff report; and an evidentiary hearing before us on August 17, 2010. We authorized Hearing Examiner Ruth Ann Price to rule on petitions for intervention and to address other ministerial matters.

6. On July 19, 2010, the Division of the Public Advocate ("DPA") moved for leave to intervene out of time. On August 6, 2010, Hearing Examiner Price granted the DPA's motion.

7. On August 6, 2010, Staff filed its "Report on Delmarva Power's Request for Approval of Solar Renewable Energy Credit Contracts" (the "Staff Report") (Ex. 7).³

8. On August 10, 2010, Delmarva and the DPA filed comments on Staff's Report. The SEU and the Delaware Solar Energy Coalition ("DSEC") filed motions to intervene out of time and proposed comments. As there were no objections from the other parties, Hearing Examiner Price granted those petitions.

9. On August 17, 2010, we conducted a duly-noticed public evidentiary hearing on the application, at which we admitted exhibits and took testimony from representatives of the parties. (We left the record open to receive the revised White Oak and SEU Contracts as exhibits, and closed the record after receiving those). We deliberated in open session, at the conclusion of which we approved the White Oak and SEU Contracts with the described modifications. We entered an order granting such approval, noting that we would provide more detailed findings and reasons for our determination in a subsequent order. This Final Findings, Opinion and Order sets forth those more detailed findings and reasoning.

FACTUAL BACKGROUND

The EURCSA and REPSA Requirements.

10. Delmarva is the sole SOS provider in Delaware. Section 1007(c)(1)a. of the EURCSA requires at least 30% of Delmarva's SOS

³ Staff filed its Report three days after the scheduled deadline because Delmarva provided its responses to Staff's discovery three days later than required by the schedule. The parties agreed to these extensions provided the evidentiary hearing date remained the same.

resource mix to consist of purchases made through the regional wholesale market, but allows Delmarva to use a mix of resources to meet its remaining SOS supply obligations. 26 *Del. C.* §1007(c)(1)a. In Order No. 7199 (Docket No. 04-391), we directed Delmarva to use a portfolio approach to meet its SOS supply obligations. Furthermore, EURCSA Section 1007(b)(1) authorizes Delmarva to enter into short- and long-term contracts to procure power necessary to serve SOS customers. Upon doing so, Delmarva must either file an application with us or request approval of such action as part of its integrated resource plan. If Delmarva files an application, we must hold an evidentiary hearing on the request and must approve the request if we find that "such action is in the public interest." 26 *Del. C.* §1007(b).

11. In 2007, the General Assembly enacted the REPSA, 26 *Del. C.* §§351 *et seq.*, which is intended to establish a market for electricity from renewable resources in Delaware. *Id.* §§351(b), (c). Section 354(a) requires the annual total retail sales of each Retail Electricity Product⁴ to include a minimum percentage of electric energy sales generated from renewable resources and solar photovoltaics ("PVs"). If a retail electricity supplier lacks sufficient renewable energy credits ("RECs") and SRECs to meet its compliance year obligation, it must pay an alternative compliance payment⁵ representing

⁴ The REPSA defines a "Retail Electricity Product" as "an electrical energy offering that is distinguished by its generation attributes and that is offered for sale by a retail electricity supplier or municipal electric company to end-use customers." 26 *Del. C.* §352(20)).

⁵ The solar alternative compliance payment is the only alternative compliance payment implicated by this application; it will be referred to herein as "SACP."

the difference between the credits available and used in the compliance year and the credits necessary to meet that year's requirement. *Id.* at §358(c). Prior to July 29, 2010, the minimum percentages were as follows:

Compliance Year (begins June 1)	Minimum Cumulative % from Eligible Energy Resources	Minimum Cumulative % from Solar Photovoltaics
2010	5.5	0.018
2011	7.0	0.048
2012	8.5	0.099
2013	10.0	0.201
2014	11.5	0.354
2015	13.0	0.559
2016	14.5	0.803
2017	16.0	1.112
2018	18.0	1.547
2019	20.0	2.005

26 *Del. C.* §354(a).⁶

12. The 2010 REPSA amendments (hereafter "SS 1 to SB 119" or "the REPSA amendments") increased the required solar percentages:

Compliance Year (begins June 1)	Minimum Cumulative % from Eligible Energy Resources	Minimum Cumulative % from Solar Photovoltaics
2010	5.00	0.018
2011	7.00	0.20
2012	8.50	0.40
2013	10.00	0.60
2014	11.50	0.80
2015	13.00	1.00
2016	14.50	1.25
2017	16.00	1.50
2018	17.50	1.75
2019	19.00	2.00
2020	20.00	2.25
2021	21.00	2.50
2022	22.00	2.75
2023	23.00	3.00
2024	24.00	3.25
2025	25.00	3.50

⁶ The minimum percentage from "eligible energy resources" includes the minimum percentage from solar PVs. 26 *Del. C.* §354(a).

13. As a result of the REPSA amendments, Delmarva's estimated SREC obligations, based on its SOS load projections, changed as follows:

Compliance Year (beginning June 1)	SREC Obligations - 2007 REPSA	SREC Obligations - 2010 REPSA
2010	775	775
2011	2,086	8,692
2012	4,348	17,568
2013	8,902	26,574
2014	15,799	35,704
2015	25,166	45,020
2016	36,520	56,850
2017	51,019	68,820
2018	71,673	81,078
2019	93,874	93,640
2020	88,689	99,526
2021	89,656	111,790
2022	90,904	124,682
2023	91,680	137,177
2024	92,052	149,211
2025	92,013	160,622

(Ex. 7 at 17; Tr. at 35).

14. After REPSA became effective, Delmarva obtained most of its RECs and SRECs from its SOS wholesale energy providers through the reverse auction process. However, in Order No. 7432 (Docket No. 04-391), we granted Delmarva's request to remove the wholesale energy providers' REC/SREC obligation, and Delmarva became responsible for procuring RECs and SRECs to satisfy its REPSA requirements.

The City of Dover Conducts an RFP Process for Generation

15. In late 2007, Dover requested Pace to develop and implement an RFP process for long-term generation-based capacity and energy. Pace developed a three-stage process: (1) a Request for Qualifications ("RFQ") to solicit conceptual proposals and evaluate potential

bidders' qualifications; (2) an RFP process; and (3) an "open book" negotiation process with selected bidders. (Ex. 7 at 9).⁷

16. Dover issued its RFQ in March 2008 by e-mailing it to over 40 companies and publishing a notice in *Platt's MW Daily*, *Gas Daily* and *Power Markets Week*, which notice referred interested persons to Dover's website for the full RFQ. Although the RFQ focused primarily on cost and reliability objectives, it mentioned concerns for "'environmentally clean energy'" and invited proposals for both renewable and conventional resources. (*Id.* at 9-10, quoting City of Dover RFQ). Thus, it was an "all-source" RFQ, rather than one limited to clean or renewable energy projects: Dover did not send the RFQ to any companies focusing solely or even almost exclusively on solar PV projects, nor were the trade publications in which it published notice geared toward renewable energy or solar power. (*Id.*).

17. A handful of companies responded to the RFQ. (*Id.*).

18. Dover issued its RFP in July 2008 with an October 2008 deadline for responses. RFQ responders were invited to submit bids. The RFP mirrored the RFQ with respect to Dover's interest in generation types and using the Garrison Tract. (*Id.*). Mr. Hodsoll testified that Dover's objectives for the RFP process "were to effectively evaluate and potentially select a proposal(s) that would result in reliable, cost competitive and environmentally prudent energy," and that the proposals could have included but were not limited to: (1) electrical capacity and energy options (cost-based

⁷ An "open book" process is one in which the bidder is asked to provide key cost and technical inputs supporting the bidder's price and other aspects of its proposal. (Ex. 7 at 9 n.15).

capacity or generation plant-based energy); options for increasing supplies over time as load grew; options for investment and participation by Dover; value for Dover's contributions to a project; and conventional and renewable supply sources. (Ex. 5 at 4-5). Dover received several bids, including some for renewable energy generation projects; however, White Oak's 10 MW solar PV project on the Garrison Tract site was the only solar PV bid received, and the only project that would create REPSA-qualifying SRECs. (*Id.* at 5; Ex. 7 at 10-11).⁸

19. Dover (through Pace) applied several criteria to determine what bidders (if any) it would select to begin negotiations:

- The alignment of resources being offered with Dover's near- and long-term capacity and energy needs, such as plant size and generation technology attributes;
- The impact on Dover's cost of service, including (where applicable) the impact of the participation options offered to Dover, including the costs of committed capacity, energy, capital, fuel, and fixed and variable non-fuel operating and maintenance ("O&M") costs;
- The relevant and material risks of construction (costs and timeline); financing (including funding development and construction activities); operating performance and O&M costs; and legislative and regulatory risks (environmental, health and safety);
- Participation options for Dover, including but not limited to equity ownership and rights to call capacity;
- The environmental impact (biophysical, social, other); and
- The impact of the proposal on jobs and economic development in Dover and Delaware.

(Ex. 5 at 8-9).

⁸ Mr. Hodsoll testified that Pace evaluated "solar projects" (Ex. 5 at 14) (emphasis added), but discovery revealed that only one of the two solar projects submitted was for photovoltaic generation. (Ex. 7 at 10-11).

20. Pace assessed the bids based on their proposed technology, market demand for and supply of the energy and Attributes, and financial viability. (*Id.* at 13). Pace conducted due diligence on and independently modeled each of the proposals and presented that information to the Steering Committee. (*Id.*).

21. Dover selected White Oak's proposal for detailed due diligence and negotiations. (*Id.* at 11). Mr. Hodsoll testified that in Delaware, "the public power philosophy is to maintain parity with the state's renewable policy goals" through voluntary compliance with the REPSA, and that in light of the "unprecedented and potentially unrelenting volatility in the energy markets," renewable energy was one of few options that could provide long-term price certainty beyond the duration of market-based natural gas futures contracts. (*Id.* at 15). He testified that Dover concluded that White Oak's proposal provided the lowest compliance costs, electricity pricing stability, most significant environmental benefits and needed jobs in the short term. (*Id.* at 15-16).

Delmarva Begins Exploring Ways to Fulfill Its SREC Obligations

22. In late 2008, after we relieved wholesale SOS providers of their obligation to provide RECs/SRECs in their SOS bids, Delmarva assigned Glenn Moore to explore ways to fulfill its REPSA obligations, either through a long-term contract, installing solar generation facilities at its distribution and/or transmission substations, or developing a Delaware-sited utility-scale solar facility on its own property or elsewhere. (Ex. 3 at 3-4). In November 2008, Mr. Moore prepared a high-level memorandum addressing numerous matters,

including potential cost and build versus buy options. He noted that the solar industry was currently "robust," and that Delmarva had held discussions with four companies who were "more than willing to move forward with proposals" to develop and/or build solar facilities of up to 2 MW in capacity. (Ex. 7 at 8, quoting memorandum).

Delmarva and Dover Join Forces in the Sun Park.

23. While Mr. Moore was investigating Delmarva's options, Dover contacted Delmarva in December 2008 to determine its interest in the Sun Park. (Ex. 3 at 4; Ex. 5 at 4). Dover sought others' participation because it had always envisioned that the Sun Park would provide benefits for all of Delaware and that its environmental benefits would accrue beyond Dover. Dover specifically contacted Delmarva because: (1) Delmarva had the single largest SREC requirement in the state, so its participation would be necessary to place Sun Park-generated SRECs; and (2) it thought that Delmarva would seriously consider participating because of its leadership position in the field of renewable energy. (Ex. 5 at 17-18).

24. Delmarva assembled a team to investigate participating in the Sun Park. (Ex. 3 at 4). The team met several times (in-person and telephonically) with Dover representatives, particularly Mr. Hodsoll. (*Id.* at 5). The team also held numerous internal meetings with LS Power/White Oak and conducted its own examination of the Sun Park project. Ultimately, Delmarva decided that it would participate in the Sun Park rather than pursue a Delmarva-only solar project because: (1) it was "very comfortable" with its initial series of meetings with the Dover, LS Power and White Oak representatives,

including their knowledge and experience; (2) Dover had already conducted its own "significant" RFP selection process; (3) Dover owned the Sun Park site and had selected the proposed developer; and (4) its participation would permit construction of a larger project, likely leading to economies of scale. (*Id.* at 5-6). In discovery, Delmarva provided additional reasons for its decision: avoiding the costs and time associated with its own RFP process; the Sun Park could be brought on line earlier than a project(s) arising out of a Delmarva RFP process; and the flat price structure was below the then-existing SREC market price. (Ex. 7 at 11).

25. Upon deciding to participate in the Sun Park, Delmarva's team began negotiating with White Oak in early August 2009. It also engaged outside counsel experienced in energy contracts to "ensure that an eventual contract would adequately protect the interests of Delmarva's customers." (Ex. 3 at 6). The White Oak Contract was executed on April 22, 2010. (*Id.*).

The Original White Oak Contract

26. Delmarva and White Oak were negotiating their contract at the same time that White Oak was negotiating with Dover and the Delaware Municipal Electric Corporation ("DEMEC"). (*Id.* at 7). Delmarva, Dover and DEMEC agreed that their respective contracts should contain similar pricing, terms and benefits, adjusted as necessary to address any additional assurances or letters of credit that each might require. (*Id.*). The various entities agreed early on that Dover would take all the energy and capacity from the Sun Park since the interconnection would be within Dover's distribution system

and a direct interconnection to Dover's system would avoid the PJM-associated costs involved with interconnecting to the Delmarva-owned transmission system, thus reducing costs. (*Id.* at 6-7).

27. The salient terms of the original White Oak Contract were:

- Delmarva will purchase from White Oak SRECs and all other Attributes associated with 70% of the Sun Park's annual output, minus those associated with up to 5,500 per year to be purchased by the SEU during each of the first four years of the Sun Park's commercial operation. (The SEU Contract will be discussed *infra*).
- The purchase price for the Attributes is \$216.70/MWh, payable within 10 days of invoice. Late payments accrue interest at prime plus 2%.
- Delmarva's purchase obligation is limited to 16,500 MWh per year (14,500 MWh during each of the first four years of the Sun Park's commercial operation). If, after taking into account quantities sold to Dover and the SEU) more Attributes are available from the Sun Park, Delmarva may purchase some or all of them at \$216.70/MWh.
- Either party may terminate the contract: (a) if the Commission did not approve it on terms acceptable to Delmarva by April 22, 2011; or (b) upon occurrence of a *force majeure* event preventing performance for an uninterrupted period of one year prior to commercial operation or 18 months after commercial operation.
- Delmarva may terminate the contract if its auditor determined that Delmarva would be required to consolidate White Oak in its financial statements, and the parties could not negotiate an amendment avoiding that result.
- Delmarva's purchase obligations were contingent on: (a) the Sun Park being an "eligible energy resource" under the REPSA; (b) the Commission approving the White Oak and SEU Contracts on terms acceptable to Delmarva; and (c) White Oak delivering a letter of credit ("LOC") to Delmarva.
- White Oak's obligations were contingent on obtaining all governmental approvals and financing.
- White Oak may not curtail output except: (a) when directed to do so by PJM; (b) for maintenance (which may not be scheduled from June through September without Delmarva's

consent); (c) for an emergency; or (d) if required pursuant to the Dover interconnection agreement.

- Within six months of Commission approval, White Oak must: (a) provide evidence that it has issued a notice to proceed under a turnkey construction contract, or (b) post a \$50,000 LOC in Delmarva's favor. If White Oak posts the LOC and fails to provide evidence that it has issued notice to proceed within one year of Commission approval, Delmarva can terminate the Contract and is entitled to \$50,000 in liquidated damages.
- Upon issuance of a notice to proceed, White Oak will issue a LOC in the amount of \$210,000 (approximately equal to \$30/KW based on 70% of 10 MW of capacity).
- If, within 17 months of Commission approval, the Sun Park fails to achieve commercial operation or achieves commercial operation with a demonstrated capacity less than 9.2 MW, White Oak will be liable for liquidated damages of \$800/day (prorated based on the capacity shortfall) for up to six months of such delay.
- If the Sun Park fails to achieve commercial operation within 23 months of Commission approval, Delmarva may terminate the Contract and be entitled to \$920,000 of liquidated damages.
- If the Sun Park fails to achieve a demonstrated capacity of 9.2 MW within 23 months of Commission approval, White Oak will be liable for liquidated damages based on the capacity shortfall, calculated at \$100,000/MW.
- Upon commercial operation, White Oak must increase the LOC amount to \$420,000 (approximately equal to \$60/KW), which is not subject to replenishment if Delmarva draws upon it after a White Oak default.
- White Oak guaranteed that the Sun Park would generate no less than 75% of the estimated output on an annual basis. The guaranteed amounts range from 7,838 MWh in the first year of commercial operation to 6,664 MWh for the 20th year. This guarantee is excused if output is reduced due to curtailment, *force majeure* or derating of the Sun Park at commencement of operation (for which liquidated damages will be paid as set forth *supra*).
- In the event of a shortfall, Delmarva may waive its remedy or require White Oak to cover the shortfall. If no Attributes are available for purchase from third parties to

cover the shortfall, White Oak will be liable to Delmarva for the amount of the SACP due for such shortfall less the SREC contract price for the shortfall, regardless of whether Delmarva is required to pay the SACP. White Oak's liability under this guarantee is limited to \$100,000 per year; however, Delmarva may terminate the White Oak Contract if White Oak fails to make payment of any liability in excess of the \$500,000 limit.

- For the period lasting from commencement through 18 months after commercial operation, White Oak will not sell Attributes from the Sun Park pursuant to a 20-year contract at a price (without a separate pass-through for O&M costs) less than the contract price of \$216.70/MWh plus \$2/MWh.
- Delmarva will be responsible for any new taxes on the generation or sale of Attributes. If White Oak is required to incur more than \$50,000 of capital costs to comply with any new law, it may propose a price increase based on Delmarva's allocated share of 70% spread over 20 years, which would apply only to the remaining period of the White Oak Contract. White Oak may terminate the Contract if Delmarva does not agree to the price increase.
- Delmarva may terminate the White Oak Contract if a change in law prohibits the Attributes from being conveyed separately from the energy generated by the Sun Park and the parties are unable to reach a mutually acceptable amendment to provide for the transfer of Attributes.
- Delmarva remains liable to purchase Attributes regardless of any change in law eliminating its obligation to purchase or affecting the value of the Attributes.
- Each party indemnifies the other against third-party claims for personal injury or property damage and against fines or penalties resulting from the other party's breach of the Contract, negligence or willful misconduct.
- White Oak must assign the White Oak Contract to any purchaser of the Sun Park. Other assignments are subject to the counterparty's consent, except for: (a) assignments by a party to an affiliate; and (b) assignments in connection with a financing or refinancing of the Sun Park (in which case Delmarva will consent).

(Ex. 3 at 8-11; Ex. 7 at 27-29).

The Original SEU Contract

28. Mr. Moore testified that it became apparent early in Delmarva's negotiations with White Oak "that the SEU could play a pivotal role." (Ex. 3 at 11). Delmarva's 70% participation in the Sun Park was beneficial to it, but under the then-existing REPSA, there was a risk that some of the SRECs it was purchasing would expire before they could be used. Furthermore, the number of SRECs that Delmarva would purchase in these early years, vis-à-vis its SREC obligations, would eliminate its need to be in the SREC market for several years, and Delmarva believed that it had to procure SRECs on an ongoing, largely uninterrupted basis to support a viable SREC market in Delaware. (*Id.* at 11-12). (As noted previously, Delmarva is the largest potential SREC customer in the State). Therefore, Delmarva entered into a contract with the SEU (and the SEU entered into a contract with White Oak) dated April 22, 2010 whereby: (1) the SEU would purchase 5,500 MWh of Attributes from White Oak in each the first four years of the Sun Park's commercial operation; and (2) during the fifth and sixth years of commercial operation, Delmarva would purchase one-half of those Attributes back from the SEU at \$249/MWh (11,000 in each year).⁹ Other salient provisions of the SEU Contract are:

- The purchase price is due within ten days of invoice, with interest accruing at 5.5% or prime plus 2%, whichever is greater.
- Either party may terminate the SEU Contract if the Commission has not approved it by April 22, 2011.

⁹The reason for the price difference was to enable the SEU to finance its purchase of the Attributes from White Oak and carry them until Delmarva purchases them. (Ex. 7 at 30).

- Delmarva may terminate the SEU Contract if its auditor determines that Delmarva would be required to consolidate the SEU into its financial statements, and the parties are unable to agree to an amendment avoiding that result.
- Upon termination of the SEU Contract, Delmarva must purchase any Attributes previously purchased by the SEU. If the termination was for any reason other than the SEU's default, Delmarva was responsible for paying the SEU any out-of-pocket costs it incurred in financing the purchase.
- Delmarva's obligation was contingent on the Sun Park being certified as an "eligible energy resource" under the REPSA and the Commission entering a final, non-appealable order on terms acceptable to Delmarva.
- The SEU's obligations were contingent on obtaining financing and the SEU Contract being in full force and effect.
- Delmarva is responsible for any new taxes on the purchase, ownership or sale of Attributes to which the SEU may become subject.
- Delmarva remains obligated to purchase the Attributes regardless of any change in law eliminating its requirement to purchase or affecting the value of the Attributes.
- Delmarva will indemnify the SEU against third-party claims for personal injury or property damage and against fines or penalties resulting from Delmarva's breach of the SEU Contract or the negligence or willful misconduct of Delmarva, its employees, contractors or agents.
- Any assignment of the SEU Contract is subject to the counterparty's consent, except that the SEU may assign the Contract without consent in connection with its financing.

(Ex. 3 at 12-13; Ex. 7 at 30).

Staff's Report

29. Staff retained New Energy Opportunities, Inc. ("NEO") to review the White Oak Contract and the SEU Contract, and NEO engaged La Capra Associates ("La Capra") as a subcontractor to assist it in its expedited review. The Commission is very familiar with NEO. NEO, and its principal, Barry Sheingold, with La Capra, as subcontractor,

served as the Independent Consultant for the Commission and other State Agencies in Docket 06-241 (the Bluewater Wind PPA), and served as the Commission Staff consultant in Docket No. 08-205 (Delmarva's application for approval of three land-based wind power PPAs). NEO has extensive experience in reviewing competitive procurements for long-term PPAs and other transactions involving energy projects in other jurisdictions. La Capra participated in a number of these assignments with NEO, and also testified regarding National Grid's and Western Massachusetts Electric Company's proposals to purchase and install solar PV facilities. A substantial portion of La Capra's practice over the last decade has been in the renewable energy sector, with expertise and experience in economic and financial analysis of such projects and contracts, power market policy and analysis, power procurement, power resources planning, ratemaking regulatory policy, and renewable energy project development (including siting and technical reviews). (Ex. 7 at 7-8).

30. NEO emphasized that when Delmarva began its investigation, it was looking into *only* solar projects that would generate REPSA-compliant SRECS. (*Id.* at 12) (emphasis added). NEO stated that a well-designed competitive bidding process for the product(s) being solicited (here, SRECs) generally "will produce a sufficiently robust response such that the resulting price of the winning bid(s) (assuming the terms and conditions are acceptable and the project is viable) can be viewed as representing the lowest reasonable 'market price'" for the product(s) sought, such that an independent reviewer can usually conclude that the pricing of the winning bid(s) is appropriate on the

basis of the competitive procurement process alone, without having to rely on information outside the bidding process. (*Id.*). Here, however, Dover's RFP was an "all-source" RFP, in response to which it received only one solar PV proposal (although other renewable energy proposals had been submitted).¹⁰ NEO suggested several reasons why solar PV developers may not have responded, but in its view neither these reasons nor the White Oak Contract's potential benefits provided a sufficient basis to conclude that the White Oak SREC price was the result of an adequately competitive bidding process for solar PV SRECs (or other products, such as energy and capacity). (*Id.* at 12). Consequently, NEO reviewed the White Oak Contract in the context of: (1) information available from Dover's RFP process and the associated contract negotiations among White Oak, Delmarva, Dover and DEMEC; (2) information available to NEO regarding solar PV projects and costs; (3) market information on SRECs; and (4) the reasons Delmarva provided for pursuing contract negotiations with White Oak. (*Id.*).

31. NEO noted that Delmarva seemed to be relying primarily on the fact that the contract price was below the then-existing SACP and SREC spot market prices to support its contention that the White Oak Contract SREC price was reasonable. However, NEO did not believe that that justified the White Oak Contract SREC price by itself; rather, it had to be compared to other reasonably comparable long-term SREC pricing streams, whether derived directly or indirectly. NEO observed

¹⁰ None of the four developers with whom Delmarva had discussed a potential solar PV project was included on Pace's e-mail distribution of the RFQ, and none of these developers submitted a bid in response to the RFP. (Ex. 7 at 10).

that Delmarva could have obtained such comparable pricing by conducting its own RFP and asking White Oak to bid into it, or by comparing the bids received pursuant to its own RFP to White Oak's proposals, but it did not do so. Since there was no way to make a direct comparison in the information provided to NEO, NEO conducted its own evaluation.

1. **Standard for Reasonableness of SREC Contract Prices.**

32. State renewable portfolio standards create the demand for SRECs. Conceptually, SRECs represent the "renewable premium" associated with solar PV projects-- the difference, on a risk-adjusted basis, between (1) the cost of constructing and operating a solar PV project (including a reasonable return on investment and considering tax credits and other tax benefits) and (b) the value of revenues obtained from the sale of energy and capacity. (*Id.* at 13). NEO testified that the relevant market for a long-term SREC contract is the applicable state or regional long-term SREC contract market. One may consider comparisons to the applicable spot market based on an understanding of spot market dynamics, and a review of SACP levels can be helpful (and may perhaps be necessary), but neither is sufficient to show the reasonableness of long-term SREC prices. (*Id.* at 13-14).

33. NEO explained that there are two reasons that the renewable premium for SRECs purchased under long-term contracts can be substantially less than the SREC spot market price. (*Id.* at 13). First, assuming the project can be financed, risk is significantly less when the developer has locked in a long-term SREC price and the energy and capacity value is secured through long-term fixed \$/MWh

pricing (as is the case here) than where a developer does not have fixed-price contracts. Second, long-term SREC contract prices should reflect the cost of developing, financing and building solar PV projects minus the value of the capacity and energy they produce, rather than a premium based on a short-term SREC shortage. The short-term SREC market is heavily influenced by the various states' SACP levels,¹¹ but long-term SREC prices obtained through a competitive bidding process should be based primarily on developer cost, and developer cost should be materially lower than the short-term SREC market when demand is greater than supply. Moreover, assuming that the project cost (including a reasonable return on investment) is reasonable, the allocation between revenues based on energy and capacity value and the SREC renewable premium should also be reasonable. Here, NEO observed, White Oak's energy revenues are based on its contract with Dover, while Delmarva is only purchasing SRECs. Since the market for long-term contracts is thin and the competitive procurement process for SRECs was not robust, NEO evaluated the reasonableness of the White Oak Contract SREC price by evaluating cost data and the revenues to be obtained from the sale of capacity and energy compared to market projections for the value of capacity and energy. (*Id.*).

2. The SREC Market in Delaware and the Mid-Atlantic.

34. Solar PV projects require a higher renewable premium than other lower-cost renewables such as wind and landfill gas. The energy

¹¹ As NEO pointed out, Delaware spot SREC prices have generally been lower than other PJM states. (Ex. 7 at Appendix B).

and capacity value (or benefit) of solar PV projects is generally higher than these renewable alternatives, but their \$/MWh cost is also higher due to a combination of higher capital costs and lower capacity factors.¹² Therefore, Delaware and other states have incorporated a solar PV "carve-out," which requires electricity suppliers to purchase SRECs equal to some percentage of retail sales or load. (*Id.* at 14).

35. Although Delaware's REPSA defines the relevant market for Delmarva's SREC purchases from White Oak, that market is influenced by other states having solar PV carve-outs because Delaware's (and other states') REPSA defines the geographic standards for "eligible energy resources" as "'energy sources located within or imported into the PJM region.'" (*Id.* at 14, quoting 26 *Del. C.* §352(6)). Delaware-compliant solar PV generation can come from a wide area, but as a practical matter, most will come from within the PJM region due to transmission costs and more attractive opportunities for developers elsewhere. (*Id.* at 14-15). Thus, as an SREC buyer, Delmarva's relevant market is the PJM region. (*Id.* at 15). Indeed, in considering its participation in the Sun Park, Delmarva assumed that the lack of variation in insolation would make a Delaware-sited solar PV project equally competitive with other such projects within PJM. (*Id.* at 16).

¹² NEO noted the common belief that as solar PV installations increase, technology will improve, manufacturing will become more efficient, and costs will become more competitive with other generating resources. (Ex. 7 at 14).

36. As noted previously, the White Oak and SEU Contracts were executed prior to the July 2010 enactment of the REPSA amendments that increased the REC/SREC requirements¹³ and made other material changes:

- The Delaware State Energy Coordinator, in consultation with the Commission, may freeze the SREC percentage obligation if the total cost for compliance with the solar PV program exceeds 1% of the total cost of electricity for retail suppliers in a year.
- The SACP increased substantially:

	SACP (\$/MWH) 2007 REPSA	SACP (\$/MWH) 2010 REPSA
2010	250.00	400.00
If existing SACP was paid in prior year	300.00	450.00
If existing SACP was paid in prior year	350.00	500.00

- Retail Electric Suppliers can obtain 10% "extra SREC credit" from Delaware-sited solar installations where at least 50% of the renewable energy equipment is manufactured in Delaware and/or the facility is constructed or installed with at least 75% in-state workforce.
- Subject to certain limitations, the REPSA targets now apply to municipal utilities and rural electric cooperatives.

(SS 1 to SB 119 amending 26 Del. C. §354(a), signed on July 29, 2010).

37. The White Oak Contract SREC price was below the SACP levels existing at the time the parties negotiated and executed it. According to NEO, while an increase in the SACP would not significantly affect long-term SREC pricing for a utility-scale solar PV project, it creates additional benefits: First, the alternative - spot market SREC purchases - would likely result in higher costs to Delmarva ratepayers. Second, the increased demand associated with the

¹³ The 2010 amendment quadruples Delmarva's SREC obligations for compliance years 2011 and 2012, and triples its obligation for compliance year 2014 -years in which the SEU would be purchasing 5,500 SRECs under the original SEU Contract. (Ex. 7 at 18).

increased SREC obligation and the expansion of that obligation to municipal utilities and electric cooperatives will also put upward pressure on SREC prices, particularly on spot SREC prices.¹⁴ (*Id.*).

3. The Reasonableness of the White Oak Contract's SREC Price Based on White Oak's Revenue Contracts, Cost Data, and Energy and Capacity Price Projections.

38. NEO reviewed price, cost and performance information (much of which was confidential) from Delmarva, LS Power and Dover, including LS Power's cost, output and revenue information based on its review of White Oak's revenue contracts with Dover, Delmarva, DEMEC and the SEU; and Dover's energy and capacity value pricing vis-a-vis a May 2009 market forecast that Pace prepared. NEO performed additional research to place that forecast in context relative to current market conditions. Last, NEO compared the White Oak Contract SREC pricing to the Dover and DEMEC contract SREC pricing in the context of each contract's overall terms and conditions. (*Id.* at 19). In this regard, NEO reviewed (1) the total revenues that White Oak would receive if it achieved the planned output using its base case technology and configuration and (2) cost as reflected in a pro forma LS provided to Pace in November 2009. NEO used an 8% discount rate to calculate the levelized all-in \$/MWH revenues from all of the White Oak contracts, and then compared the energy revenues White Oak would get under its contract with Dover (which reflects both energy and

¹⁴ On the other hand, such increased demand could be mitigated or reversed if the State Energy Coordinator implements the 1% cost cap provisions. (Ex. 7 at 18). As NEO observed, however, the potential to freeze the SREC percentage obligation should have no impact on whether the Commission should approve the SEU Contract. (*Id.*).

capacity values),¹⁵ and calculated the levelized value of the energy and capacity revenues. This amount was subtracted from the all-in \$/MWH revenues to obtain the average renewable premium (or SREC) value. (*Id.*).¹⁶ The resulting average SREC price was slightly less than the SREC price in the Delmarva/White Oak Contract. (*Id.* at 20).

39. Second, NEO compared the energy price embedded in White Oak's Dover contract to Pace's May 2009 forecast. On a levelized basis, the Dover/White Oak energy pricing was "modestly less" than the combined energy and capacity estimates in the forecast. NEO thus concluded that the "revenue requirement" applicable to the SREC renewable premium was reasonable in the context of the cost/revenue structure of the Sun Park and the White Oak revenue contracts. (*Id.*).

40. Next, NEO reviewed forward market information for on-peak energy, natural gas and capacity for Delaware to ascertain whether there had been any substantial changes since the Pace forecast. Based on its review, NEO concluded that it was appropriate to use Pace's forecast to evaluate whether the Delmarva/White Oak Contract SREC price reasonably reflected the Sun Park's renewable premium. (*Id.*).

41. Last, NEO reviewed the differential between the combined SREC and O&M payments in the Dover and DEMEC contracts compared to the White Oak Contract SREC price. The combined SREC/O&M payments in the

¹⁵ This is because the addition of the Sun Park will reduce Dover's capacity obligations under PJM rules. (Ex. 7 at 19).

¹⁶ For purposes of this calculation, NEO treated the projected amounts that Dover and DEMEC would pay for actual fixed O&M costs as part of the renewable premium, not as part of the energy value. NEO understood the parties treated the actual fixed O&M costs the same way. (Ex. 7 at 19-20).

Dover and DEMEC contracts were substantially lower than the \$216.70 price on a \$/MWh basis, but the following facts explained and justified those differences: (1) Delmarva was not taking the risk that White Oak's actual O&M costs would be higher than projected; (2) the White Oak Contract requires White Oak to post security (unlike the Dover/DEMEC contracts); and (3) the White Oak Contract contained stricter performance standards than the Dover/DEMEC contracts. NEO also noted that another reason for the pricing differential was that Dover, not Delmarva, had initiated the transaction.¹⁷ (*Id.* at 20-21).

42. Based on these factors, NEO concluded that the Delmarva/White Oak Contract SREC pricing appeared to reflect a reasonable renewable premium. (*Id.* at 21).

4. Market Data for Long- and Short-Term SREC Prices.

43. Short-term SREC prices depend on supply and demand conditions at particular points in time. NEO observed that prices may be highest during the initial years of a REPSA requirement, especially when minimum levels were established without considering the economic potential of solar installations in those initial compliance years or were deliberately set high to provide greater incentives for installing solar facilities. For Delaware compliance year 2010, Delaware spot SREC auction prices ranged between \$200-\$250 from July 2009 through April 2010, and in the past two months, SREC prices traded in the \$255-\$300 range. (*Id.* at 22).

¹⁷ NEO explained that it is not unusual for the initiator of a transaction involving multiple parties to obtain a somewhat better deal. (Ex. 7 at 21).

44. There was a limited amount of market data for SRECs for Delaware REPSA (and other PJM states') compliance purposes for compliance years 2011 and beyond. However, NEO testified that the forward market published online by SRECTrade¹⁸ could be a "reasonably good indicator" of forward markets assuming a sufficiently large quantity of SRECs being traded and no attempt to manipulate the market. As of August 2, 2010, SRECTrade showed 25 SRECs bid/offered for Delaware compliance years 2011-15, 10 SRECs bid/offered for Delaware compliance years 2015-19, and 5 SRECs bid/offered for Delaware compliance years 2020-26. The website also showed forward market prices in the range of \$280. (*Id.* at 21-22). Thus, although there was little information about long-term Delaware solar SREC prices, NEO concluded that the existing information supported the reasonableness of the White Oak Contract price. (*Id.*).

5. Other Information to Assess White Oak SREC Price.

45. Given the lack of relevant market information, NEO evaluated the build-up of LS Power's cost information (including equipment costs) and checked the unleveraged return on investment in light of the expected revenues from its various revenue-generating contracts. (*Id.* at 22). NEO found the equipment costs, capacity factor and other projections reasonable based on available information. NEO also determined, based on its own experience and confirmed by a consultant specializing in financing renewable energy projects, that the resulting unleveraged rate of return (taking into

¹⁸In a forward market, parties bid to buy and offer to sell SRECs over periods of compliance years. (Ex. 7 at 21).

account use of the Treasury tax grant instead of the investment tax credit) was within a reasonable range for obtaining financing. (*Id.*).

46. NEO also examined the Vermont Public Service Board's ("VPSB") recent efforts to establish standard offer prices for resources qualifying for Vermont's Sustainably Priced Energy Enterprise Development ("SPEED") program.¹⁹ Vermont's standard offer prices are essentially the all-in prices on a \$/MWh basis to be paid to project developers based on assumptions and estimates of cost, capacity factor, tax treatment and other items. A separate all-in price is determined for each type of renewable resource. NEO testified that the results of Vermont's proceeding could be used to compare the reasonableness of the all-in \$/MWh revenue of the Sun Park, which in turn could be used to assess the reasonableness of the Delmarva/White Oak Contract SREC pricing. (*Id.* at 23).

47. The Vermont analyses and all-in \$/MWH standard offer pricing were calculated to enable developers to cover their construction, financing and O&M costs and a return to equity holders. Using an assumption of 2.2 MW for a solar PV project, the VPSB concluded that a 24¢/kwh (\$240/MWh) price should provide sufficient revenues to support development of solar PV resources in Vermont. (*Id.*, citing January 15, 2010 Order in Docket No. 7533). This was less than the all-in levelized price NEO calculated for the Sun Park; thus, NEO analyzed the Vermont assumptions to determine if they would apply and be available in Delaware to developers like White Oak. (*Id.*) NEO

¹⁹ SPEED resources consist of in-state renewable resources, including solar PV. (Ex. 7 at 22).

found two differences that, when adjusted for, reduced the differential to a "relatively small" amount: (1) unlike Delaware, Vermont has a state income tax credit for renewable resources built there; and (2) Vermont's financial assumptions appeared "somewhat constrained." (*Id.*). Based on this analysis, NEO concluded that the White Oak Contract SREC price was reasonable. (*Id.*).

48. Finally, NEO examined data for utility-build options. It noted that most solar projects in the mid-Atlantic states were smaller customer-sited installations, and that although investor-owned utilities in Massachusetts and New Jersey were contemplating solar PV installations, the Sun Park was likely to continue to be the largest solar PV project of its kind in the region. (*Id.*). Thus, based on its review of regional utility involvement and investment in, and the underlying costs of, solar projects, NEO found "nothing inconsistent" with its overall conclusions regarding the reasonableness of the White Oak Contract SREC pricing. (*Id.* at 24).

6. Rate Impact Limit.

49. Last, NEO examined the likelihood and impact on the White Oak and SEU Contracts of implementing the REPSA amendment freezing the minimum SREC percentage requirement under certain circumstances, which NEO noted appeared to be discretionary rather than mandatory.²⁰ (*Id.*).

²⁰ Section 11 of SS 1 to SB 119 provides that "[t]he State Energy Coordinator, in consultation with the Commission, may freeze the minimum cumulative solar photovoltaics requirement for regulated utilities if the Delaware Energy Office determines that the total cost of complying with this requirement during a compliance year exceeds 1% of the total retail cost of electricity for retail electricity suppliers during the same compliance year."

NEO found it unclear whether the denominator - "the total retail cost of electricity for retail electricity suppliers" - meant purchased power costs²¹ or total costs, including distribution charges. NEO also observed that the numerator - "total cost of compliance" - included "costs associated with any ratepayer funded state solar rebate program, SREC purchases and solar alternative compliance payments,"²² but NEO was unfamiliar with any such costs or cost estimates. Furthermore, forecasting when the 1% level might be reached depended on several assumptions, including: (1) types of "'total retail cost of electricity for retail electricity suppliers'" costs to include; (2) forecasting appropriate levels of such costs; (3) forecast average SREC/SACP combined payment levels; and (4) forecasting ratepayer-funded state solar rebate costs. (*Id.*). To provide a "rough sense" of when the 1% level might be reached, NEO assumed the following:

Denominator:

- Types of costs: average cost per MWh paid by Delmarva for SOS full requirements plus added cost of SREC/SACP purchases.
- Assumed cost level: \$91.61/MWh in compliance year 2010, escalating at 2.5% per year plus incremental SREC costs at \$216.70/SREC.

Numerator:

- SREC cost at \$216.70/SREC (no escalation)
- Solar rebates included equal \$0.

(*Id.*)

²¹ NEO cited the REPSA amendment adding 26 *Del. C.* §363(g), which applies to municipal electric companies and electric cooperatives.

²² See Section 11 of SS 1 to SB 119, adding 26 *Del. C.* §354(i).

50. Using these assumptions, NEO calculated that the 1% threshold would be reached in compliance year 2013, which would freeze the compliance requirement at 0.60%. (*Id.* at 25-26 and Table 4). In this event, Delmarva's SREC purchases from the White Oak Contract would be substantially less than its total SREC obligations, with or without its banking obligation with the SEU. (*Id.* at 26 and Table 5). NEO noted that Delmarva's average SREC purchase price level could be significantly higher than \$216.70, which would further pressure the 1% threshold, and this would be especially true in the early compliance years of the SEU Contract, which would tend to increase the likelihood of reaching the 1% level (all other things being equal). (*Id.*). Similarly, if average wholesale prices escalated at less than 2.5% annually (a possibility since the most recent wholesale price was less than the average for the last three years), there would be additional pressure on reaching the 1% level. (*Id.* at 26 n. 37). NEO noted, however, that it had not included costs associated with Delmarva's purchase of energy and RECs pursuant to its wind PPAs. (*Id.*).

51. NEO then reviewed the terms of the White Oak and SEU Contracts. (*Id.* at 27-30). With respect to the White Oak Contract, NEO identified certain differences between it and Delmarva's wind PPAs: (1) the White Oak Contract did not require development security at the time of contract execution or following Commission approval; (2) White Oak's obligations were contingent on obtaining governmental approvals and financing; and (3) White Oak's liability was limited during the operating period. (*Id.* at 29). Although such provisions were not typical in contracts entered into by investor-owned utilities

after a competitive bidding process, NEO noted they were "not unheard of either." (*Id.*). In this regard, NEO pointed out that Delmarva began negotiating with White Oak after White Oak had started negotiating with Dover, and so they started on terms proposed by White Oak based on the status of its negotiations with Dover. (*Id.*). In this context, NEO concluded that the terms and conditions of the White Oak Contract were not unreasonable, especially considering the Sun Park's low risk profile (a relatively short development and construction period and relatively high probability that it would be built) and the fact that the contract was for SRECs only. (*Id.*).

52. Based on all of its analyses, NEO concluded that the original White Oak Contract pricing and terms and conditions were reasonable and in the public interest pursuant to 26 *Del. C.* §1007(b). (*Id.* at 34; Tr. at 37).

53. NEO did not reach the same conclusion regarding the original SEU Contract, however. It noted that Delmarva had provided two reasons for entering into this contract: (1) the risk that some of the SRECs it was purchasing from White Oak would expire; and (2) purchasing the additional amounts of SRECs in the early years would remove it from the SREC market, which would affect the market's viability since Delmarva is the largest potential SREC purchaser in Delaware. (Ex. 7 at 31). Absent Delmarva's desire to continue to participate in the SREC market in the early years of the White Oak Contract, the SEU Contract would have been unnecessary prior to the REPSA amendments; furthermore, even if Delmarva's SREC requirements decreased due to SOS customer migration, Delmarva would have been able

to sell unused SRECS to other companies having SREC obligations for which the White Oak SRECs would qualify, including companies providing service in surrounding states. (*Id.* at 31-32 and Table 6).

54. NEO concluded that the REPSA amendments "substantially eroded" the justification for the SEU Contract. (*Id.* at 32). As previously discussed, the REPSA amendments greatly increased SREC requirements for compliance years 2011 through 2013. As a result, banking will only be required for compliance year 2011; Delmarva will need all of the White Oak SRECs for compliance in years 2012 and 2013 and will also have to secure additional SRECs in those years to meet its obligation. Therefore, NEO found, Delmarva would only have been out of the SREC market in compliance year 2011 (assuming Delmarva did not use its ability to bank SRECs). Furthermore, the REPSA amendments impose a comparable renewable energy standard for municipal utilities and electric cooperatives, which should provide additional liquidity to the Delaware SREC market by adding demand from these new buyers. (*Id.*). Finally, the SEU Contract would exacerbate the potential that Delmarva would reach the 1% SREC cost cap during the 2011-2014 period since Delmarva would likely have to replace the 5,500 SRECs/year that the SEU is purchasing with higher-priced SRECs. (*Id.* at 33). Consequently, NEO found that the benefits of the SEU Contract appeared to be "small" and were "outweighed by the costs of financing the arrangement." (*Id.*). Thus, NEO recommended that the Commission

either reject the original SEU Contract entirely or reduce the banking arrangement on the order of 90%. (*Id.*; Tr. at 37-38).²³

DPA's Comments on Staff Report

55. The DPA recommended that the Commission adopt Staff's Report and direct the parties to implement the recommendations in the report. The DPA stated that it had no reason to believe that the SEU Contract was unreasonable when it was negotiated, but the REPSA amendments made it "superfluous and would load additional, now unsupportable costs, originally intended to mitigate the risks [of] the project, onto the back of Delaware ratepayers." (Ex. 9). Furthermore, the risk that the White Oak SRECs would "'time out'" was "no longer even remote speculation." (*Id.*). Accordingly, the DPA concluded that approval of the Delmarva/SEU Contract would produce unjust and unreasonable rates. (*Id.*).

Delmarva's Comments on Staff's Report

56. While Delmarva disagreed with NEO that the RFP process by which Dover selected White Oak was not "robust" and that Delmarva should have conducted its own RFP process (Ex. 8 at 1-3),²⁴ it agreed

²³ NEO noted that if the Commission adopted either alternative, the White Oak Contract would have to be modified. Furthermore, if the Commission rejected the SEU Contract, both it and the SEU/White Oak contracts would terminate according to their terms. (Ex. 7 at 33).

²⁴ In particular, Delmarva noted that the Commission has previously approved contracts that were the result of on "all source" RFP. (Ex. 8 at p. 1). In addition, with respect to Staff's suggestion that Delmarva conduct its own RFP, Delmarva noted that the solar projects it had considered were less than 2 MW each and would not have produced comparable results. (Ex. 8 at pp. 2-3). On the other hand, NEO did not suggest that Delmarva limit the size of projects to be considered pursuant to an RFP to 2 MW.

with NEO's conclusion that the terms and pricing of the White Oak Contract were reasonable and in the public interest. (*Id.* at 3).

57. Delmarva contended that the SEU Contract was reasonable and in the public interest even after the REPSA amendments because "it allows Delmarva to be a robust player in the emerging solar power market in Delaware" and allows Delmarva "to fulfill its SREC obligations in future years at the current fixed price in the SEU Contract." (*Id.* at 4). Delmarva noted that it was the largest potential customer for Delaware SRECs and that it must procure SRECs "on an ongoing and largely uninterrupted basis" in order for the Delaware solar market to be viable. (*Id.* at 4-5). Thus, the SEU Contract was necessary for it to be a "player" in the Delaware SREC market to encourage the development of that market. (*Id.* at 5). Delmarva contended that the policy provisions of the REPSA amendments - to establish a market for electricity from renewable resources in Delaware and reduce the cost of renewable energy - supported its position, because it would be difficult to achieve those policy objectives if Delmarva were out of the SREC market until 2012. Finally, Delmarva contended that the SEU Contract allowed it to purchase SRECs in 2015 and 2016 at a fixed price rather than future higher prices, which would benefit its SOS customers. (*Id.* at 5-6).

Delaware Solar Energy Coalition Comments on Staff's Report

58. The DSEC stated that the Sun Park represented "the tremendous forward progress our State has made in its sustainable, clean energy policy goals" (Ex. 10 (DSEC) at 1). The DSEC anticipated that upon its completion, the Sun Park would propel

Delaware to the forefront of the solar energy industry on both a per capita and absolute basis, although it admitted that the size of the Sun Park created "near-term complications for the industry." (*Id.*). The DSEC disagreed that the REPSA amendments eliminated or diminished the benefits of the SEU Contract, stating that: (1) the Sun Park doubled the existing solar supply in Delaware; (2) the supply of SRECs from the Sun Park included those being purchased by Dover and DEMEC; and (3) it was "not conceivable that the authors of the recently-enacted RPS legislation were not fully aware of the impact of the SEU's [Sun Park] role on the SREC supply and demand balance." (*Id.* at 1-2). Thus, the DSEC argued, "in order to avoid choking off the Delaware solar industry's growth just as it has developed sustainable momentum and to ensure that the legislated intent of the recent revisions to the RPS is maintained, the SEU must be allowed to provide this SERC inventory balancing and management role." (*Id.* at 2).

59. The DSEC argued that NEO misconstrued the REPSA amendments' 1% rate increase trigger provision. According to the DSEC, the General Assembly intended to protect ratepayers from a spike in rates on a year-to-year basis, so the 1% cap applies to the impact of compliance within a given fiscal year. (*Id.*). The DSEC contended that NEO compounded its "error" by comparing the cost of the SREC to the wholesale cost of electricity even though the appropriate comparison is the retail rate. Finally, the DSEC asserted that "it defies logic that the legislators would institute a cap that would effectively halt the growth of solar projects within four years - as

calculated by NEO using their flawed approach - and at the same time increase their legislated requirement." (*Id.*).

SEU Comments and Testimony on Staff's Report

60. The SEU submitted comments and prefiled testimony from John Byrne, Ph.D., Distinguished Professor of Energy and Climate Policy at the University of Delaware. Dr. Byrne is also the Director of the University's Center for Energy and Environmental Policy, and is expert in the area of renewable energy. Dr. Byrne is a co-chair of the SEU's Oversight Board and a member of that Board's Executive Committee. (Ex. 12 (Byrne) at 1). In his testimony, Dr. Byrne adopted the factual assertions in the SEU's comments as his own. (*Id.* at 2).

61. The SEU objected to NEO's recommendations regarding the original SEU Contract. First, it identified two of its responsibilities as promoting the development of renewable energy resources in Delaware and stabilizing the Delaware SREC market. (Ex. 11 at 3). The SEU contended that the SEU Contract would assist in achieving both of those goals, and would benefit Delaware customers financially in the long run. (*Id.*).

62. The SEU described the genesis of the Sun Park and its importance to Delaware and its citizens with respect to increased diversity of electric supply, local air quality, protection against price volatility and supply disruption, the local economy and Delaware's solar industry. (*Id.* at 4). The SEU contended that the contracts among Delmarva, White Oak and the SEU, which "took months to negotiate," represented "the best judgment of the parties in terms of

the current and future SREC market and the needs of Delmarva to purchase SRECs" under the REPSA." (*Id.*).

63. The SEU argued that the SEU Contract was in the public interest for several reasons. First, if Delmarva could satisfy most or all of its SREC obligation from the Sun Park, it would not have to invest in other solar projects in Delaware. This would cause the solar industry to lose approximately \$6,142,777 that Delmarva would otherwise have invested in SREC purchases from 2011-2014, which would be a "serious blow" to that industry. (*Id.* at 5, 7 and Exhibit A).²⁵ Second, rejecting the SEU Contract would drive SREC prices up substantially, which would detrimentally affect Delmarva and its customers in the long-run. (*Id.*). Third, if the SEU did not participate in the Sun Park project, the demand for smaller solar projects over the next five years would decelerate because "an important share of SREC sales that could go to projects of 300 kW or less will be lost," which would "seriously hamper" solar industry growth even as SREC requirements were rapidly increasing. (*Id.*). Thus, although it acknowledged that Delmarva SOS customers would save some \$710,000 from rejection of the Contract, the SEU claimed that those customers would run the risk of much higher SREC prices in the future "because the solar industry would not grow as it otherwise would have," thus requiring ratepayer funds to be used in future years to fund out-of-state projects for Delmarva to meet its REPSA obligations. (*Id.* at 5-6). The SEU argued that the negative impact

²⁵ The \$6.1 million amount is the product of \$275/SREC and the amount of SRECs that Delmarva would implicitly have purchased from third parties from 2011-14 as a result of its banking arrangement with the SEU.

would be hardest on Delaware companies providing small- to medium-scale (less than 100 kW) solar applications to households and businesses, whose SRECs are currently selling for \$275 or greater. (*Id.* at 7). These negative impacts outweighed the \$710,000 benefit to Delmarva SOS customers (which the SEU contended may not even materialize because Delmarva needed many more SRECs to satisfy its REPSA obligations), and demonstrated that the Delmarva/SEU Contract was in the public interest. (*Id.* at 7-8).

64. Next, the SEU contended that NEO had inappropriately substituted its business judgment for that of Delmarva and the SEU. (*Id.* at 8-9).

65. Finally, the SEU argued that NEO "misapplie[d] and misinterpret[ed]" the intent of the recent REPSA amendments. The SEU asserted that the General Assembly was "well aware" of the SEU Contract when it enacted the REPSA amendments, and that NEO's recommendation would "frustrate the very purpose" of the amendments "by forcing Delmarva, against its own business judgment," to purchase additional SRECs from the Sun Park rather than other new Delaware solar projects. (*Id.* at 9-10).

THE EVIDENTIARY HEARING - THE AGREEMENT IN PRINCIPLE

66. On August 17, 2010, we conducted an evidentiary hearing to consider the White Oak and the SEU Contracts. At that hearing, the parties advised us that they had reached an agreement in principle ("AIP") resolving Staff's and the DPA's concerns with the original SEU Contract, and that although the AIP had not yet been reduced to

writing, the parties were confident that they would be able to do so in a timely manner.

67. Collin O'Mara, Secretary of the Department of Natural Resources and Environmental Control and a member of the SEU's Oversight Board Executive Committee, described the AIP on the record. The salient provisions of the AIP are as follows:

- The volume of SRECs that the SEU will purchase from White Oak for banking purposes was reduced from 22,000 to 10,700 (an approximate 51.4% reduction from the original contract);
- The SEU will purchase 7,000 SRECs in the first year of the Sun Park's commercial operation and 3,700 SRECs in the second year (instead of purchasing 5,500 SRECs in each of the first four years) at \$216.70 per SREC;
- In year 4, Delmarva will purchase from the SEU 2,700 of the banked SRECs at a price of \$231.70 per SREC (a reduction of approximately 7% from the original contract price of \$249);
- In year 5, Delmarva will purchase from the SEU 3,500 of the banked SRECs at \$231.70 per SREC;
- In year 6, Delmarva will purchase the remaining 4,500 SRECs from the SEU at \$231.70 per SREC.
- If Delmarva is unable to purchase SRECs at or below \$275/SRECs in the first two contract years due to the banking arrangement, Delmarva would not purchase the SRECs from third party suppliers and the SEU would effectively sell the White Oak SRECs back to Delmarva at the \$216.70 contract price (there was no similar provision in the original contract).

Id. at 26-30.

68. Each of the parties proffered a witness who testified that the AIP was in the public interest. Secretary O'Mara, testifying for the SEU, stated that the AIP recognized and accommodated the parties' competing concerns. First, by substantially reducing the number of SRECs to be purchased and banked by the SEU, as well as the timing of those purchases and the price at which Delmarva would repurchase them,

it alleviated Staff's and the DPA's concern that the SEU Contract would result in higher prices to SOS customers in light of the REPSA amendments because Delmarva would have to purchase higher-priced SRECs in the spot market. It further protected SOS customers by including the cap during the first two years of the contract. The AIP accommodated the desire of Delmarva, the SEU and the DSEC that Delmarva be active in the SREC market in the initial years of the White Oak Contract to encourage development of additional solar PV installations and recognize the legislative goals of the SEU and the REPSA. He added that the AIP would create jobs in Delaware as additional solar PV installations are constructed. (Tr. at 28-30).

69. Glenn Moore testified on behalf of Delmarva. He echoed Secretary O'Mara's description of the benefits of the AIP and the reasons it was in the public interest. He also testified that the White Oak Contract was in the public interest, especially in light of the REPSA amendments increasing the quantity of SRECs necessary for compliance, and in light of the State's policy to encourage renewable energy. He noted that the White Oak Contract would have to be modified to reflect the changes to the SEU Contract reflected in the AIP, and that Delmarva expected to be able to submit the revised contracts for the Commission's consideration quickly. (Tr. at 20-23).

70. Dale Davis, DSEC President, testified that the DSEC supported the AIP. (Tr. at 30-31).

71. Michael D. Sheehy, Deputy Public Advocate, testified on behalf of the DPA. Mr. Sheehy stated that he was intimately involved in the negotiations with Delmarva, Commission Staff and the SEU that

led to the AIP. He testified that the AIP was in the public interest because it protected Delmarva's SOS customers from paying rates that included higher prices for SRECs than Delmarva would have paid under the White Oak Contract, while still allowing Delmarva to participate in the SREC market and encourage the development of additional solar PV facilities in Delaware. (Tr. at 32-33).

72. Barry Sheingold of NEO testified on behalf of the Commission Staff that the both the White Oak Contract, as it would be amended, and the AIP were in the public interest. As for the White Oak Contract, the anticipated changes in the number of SRECs being purchased from White Oak resulted in a direct savings of \$364,990 to SOS customers, compared to the original White Oak Contract. He testified that as modified, the White Oak Contract was reasonable and in the public interest for the same reasons set forth in the Staff report. (Tr. at 39-40).

73. Mr. Sheingold testified that the AIP with respect to the SEU Contract was also in the public interest. First, he reiterated the changes in the SEU's purchase and banking obligations, and testified that the total direct cost of the SEU Contract would be reduced from \$710,600 under the original Contract to \$160,500 under the AIP, a net cost reduction of \$550,100. Second, Mr. Sheingold stated that in the course of discussions with SEU, Staff and DPA representatives, the SEU had provided information showing a reasonable likelihood that a sufficient supply of solar PV projects in Delaware would exist to meet the amended REPSA SREC requirements in the 2011-12

compliance year, even considering the SEU's banking of 7,000 SRECs from the Sun Park. (*Id.* at 40-41).

74. Third, Mr. Sheingold pointed out that the AIP's cap mechanism addressed a major concern that the original SEU Contract had not: that the banking arrangement would increase demand at a time of insufficient supply, resulting in (a) Delmarva having to pay the SACP in the event there were no SRECs in the market to purchase or (b) Delmarva having to pay a high price for SRECs, perhaps approaching the SACP, for SRECs purchased in the spot market. Unlike the original SEU Contract, the AIP has the flexibility to take market conditions into account in terms of its implementation, and in Mr. Sheingold's opinion, mitigated the risk of there being high indirect costs associated with the banking arrangement. (*Id.* at 41-42).

75. At the conclusion of the presentation of the evidence, we left the record open for the submission of the revised White Oak and SEU Contracts as Exhibits 13 and 14. We received those contracts on August __, 2010, at which time we closed the record. Thus, the record consists of 14 exhibits and a verbatim transcript of the testimony and our deliberations on August 17, 2010.

THE REVISED SEU AND WHITE OAK CONTRACTS

76. During the discussion of the specific changes to the SEU Contract, an issue arose regarding the AIP's \$275 trigger price at which Delmarva could begin to repurchase SRECs from the SEU. Specifically, the SEU noted that the SRECs produced by smaller-scale solar installations (less than 2 MW) were selling at prices above \$275/SREC, and that the \$275/SREC trigger price would take Delmarva

out of the market for such SRECs, which would deter the installation of such smaller projects. The parties negotiated a revision to the AIP provision allowing Delmarva to accelerate its repurchase requirements from the SEU if: (1) Delmarva is required to purchase additional SRECs to fulfill its REPSA obligations and cannot purchase SRECs from REPSA-defined "Solar Photovoltaic Energy Resources" of 2 MW or greater for less than \$250; or (2) due to the unavailability of such SRECs, Delmarva would be required to make an SACP. (Ex. 14 at §3.1(f)). If Delmarva purchases SRECs from the SEU pursuant to this Section 3.1(f), its purchase requirements in subsequent years will be reduced proportionately. (*Id.*). Otherwise, the revised SEU Contract incorporates all of the provisions discussed by Secretary O'Mara. (See paragraph 68 *supra* and Ex. 14).

77. The revised White Oak Contract (Ex. 13) reflects the changes to the Delmarva/SEU Contract as necessary. Additionally, the revisions specify that the net generation capacity for the Sun Park and "Demonstrated Capacity" shall not exceed 10.3 MW. (Ex. 13 at §1.2).

78. The parties recognized that time is of the essence in this proceeding, and that a final, non-appealable order is required for the White Oak to obtain financing and to begin construction of the Sun Park. The parties have no desire to delay the start of the Sun Park, and so have waived their right to appeal this Order.

DISCUSSION

79. 26 *Del. C.* §512 specifically authorizes us, and indeed encourages us, to resolve contested matters through the use of stipulations and settlements.

80. Under 26 *Del. C.* §1007(b), Delmarva, as the SOS supplier in Delaware, is authorized to enter into short- and long-term contracts to procure power to serve SOS customers; however, it must submit such contracts to the Commission for approval. Section 1007(b) further directs us to approve Delmarva's request if we find that such approval is in the public interest.

81. After reviewing the exhibits and the oral testimony at the evidentiary hearing, we agree with the parties that both the revised White Oak Contract (Ex. 13) and the revised SEU Contract (Ex. 14) are in the public interest and should be approved. We agree with the parties that the revised SEU Contract, which reduces Delmarva's banking obligations and accelerates the schedule under which Delmarva will repurchase the SRECs, appropriately recognizes the effect of the recent REPSA amendments on the original terms of that contract, and as revised protects Delmarva's SOS customers from higher rates as a result of Delmarva obtaining SRECs in the spot market or paying the SACP. The newly-added provision that allows Delmarva to repurchase SRECs from the SEU in the first two years of the contract if the price Delmarva would otherwise pay for SRECs exceeds a certain level provides additional protection to Delmarva SOS customers that was not in the original SEU Contract. We also agree with the parties that the revised SEU Contract will still enable the SEU to create a robust SREC

market in Delaware and will help to achieve the General Assembly's goal of encouraging the development of renewable energy facilities in the state. We further note the benefits that the SEU described: jobs, stimulation of the Delaware solar PV industry, improved air quality as a result of renewable resources, and improved public health.

82. Therefore, based on the evidence submitted and for the reasons discussed above, we find that the White Oak Contract, as revised (Ex. 13) and the SEU Contract, as revised (Ex. 14) are in the public interest and should be approved. (Unanimous).

ORDER

AND NOW, this 7th day of September, 2010, BY THE UNANIMOUS VOTE OF THE COMMISSIONERS, IT IS HEREBY ORDERED:

1. That the revised contract between Delmarva Power & Light Company and White Oak Solar Energy, LLC for the purchase of Solar Renewable Energy Credits from the Dover Sun Park (Ex. 13) is in the public interest and is APPROVED.

2. That the revised contract between Delmarva Power & Light Company and the Delaware Sustainable Energy Utility (Ex. 14) is in the public interest and is APPROVED.

3. That the Commission retains jurisdiction and authority to enter such further Orders in this matter as may be deemed necessary or proper.

BY ORDER OF THE COMMISSION:

/s/ Arnetta McRae
Chair

/s/ Joann T. Conaway
Commissioner

/s/ Jaymes B. Lester
Commissioner

/s/ Dallas Winslow
Commissioner

/s/ Jeffrey J. Clark
Commissioner

ATTEST:

/s/ Alisa Carrow Bentley
Secretary