STATE OF MARYLAND
PUBLIC SERVICE COMMISSION

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| IN THE MATTER OF THE APPLICATION OF SOL PHOENIX SOLAR, LLC FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT A 2.5 MW SOLAR PHOTOVOLTAIC GENERATING FACILITY IN PRINCE GEORGE'S COUNTY, MARYLAND | * * * * | BEFORE THE PUBLIC SERVICE COMMISSION OF MARYLAND<br><br>CASE NO. 9446 |

October 18, 2017

**PROPOSED ORDER OF PUBLIC UTILITY LAW JUDGE**

**Appearances:**

David W. Beugelmans, Esquire, on behalf of Sol Phoenix Solar, LLC.

Steven M. Talson, Esquire, on behalf of the Maryland Department of Natural Resources, Power Plant Research Program.

Theresa V. Czarski, Esquire, on behalf of the Maryland Office of People's Counsel.

Lloyd J. Spivak, Esquire, Peter A. Woolson, Esquire, and Leslie M. Romine, Esquire, on behalf of the Technical Staff of the Maryland Public Service Commission.

**Procedural History**

On April 11, 2017, Sol Phoenix Solar, LLC ("Applicant" or "Company") filed an application for a Certificate of Public Convenience and Necessity ("CPCN") to construct a 2.5 megawatt ("MW") solar photovoltaic ("PV") generating station ("Project") in

Prince George's County, Maryland ("Application"), which included a request for expedited review.[1]

By letter dated April 12, 2017, the Maryland Public Service Commission ("Commission") initiated a new docket, Case No. 9446, to consider the Application and delegated the proceedings in this matter to the Public Utility Law Judge Division.

On April 12, 2017, pursuant to Public Utilities Article, *Annotated Code of Maryland* ("PUA"), § 7-207(c)(1)(iv)-(v), the Applicant submitted a copy of the notice it provided to the members of the General Assembly identified as follows: Senator Joanne Claybon Benson, Delegate Erek L. Barron, Delegate Carolyn J.B. Howard, and Delegate Jazz M. Lewis.[2]

A pre-hearing conference was held on May 10, 2017. No petitions to intervene were submitted in the matter. A procedural schedule was agreed upon by the parties and adopted at the hearing.

On May 31, 2017, the Company filed the Direct Testimony of Anjali Bains, an Associate, Utility Origination at Sol Systems,[3] who provided testimony about the Applicant and sponsored those portions of the Company's Environmental Review Document[4] not sponsored by the Applicant's two other witnesses; the Direct Testimony of Dane S. Bauer, Vice President, H&B Solutions, LLC, who

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[1] Sol Exhibit ("Ex.") 12.

[2] Sol Ex. 2.

[3] Sol Ex. 4, Direct Testimony of Anjali Bains ("Bains Direct").

[4] Sol Ex. 3, Environmental Review Document, Project 17002.00 dated April 10, 2017, prepared by H&B Solutions, LLC ("ERD").

sponsored Sections 1, 4.C-F, 5.A, 5.B1, and 6 of the Applicant's ERD;[5] and Howard Chang, a Senior Director, Utility Origination at Sol Systems, who provided information about the Applicant and sponsored Sections 5.B2-7 and 5.C-I of the Applicant's ERD.[6]

On August 8, 2017, the Applicant filed the Supplemental Direct Testimony and associated exhibit of Dane S. Bauer.[7]

On August 10, 2017, the County Executive, Prince George's County, and the Prince George's County Council were invited to sit jointly with the Chief Public Utility Law Judge at the public hearings to be held on September 28, 2017, in Largo, Maryland. In addition, on August 10, 2017, the Applicant submitted the notices it provided to each of the following municipal corporations within a one-mile radius of the Project: Town Councils of Capitol Heights and Fairmount, and the Mayor and City Council of Seat Pleasant.[8]

On September 13, 2017, the Power Plant Research Program ("PPRP"), Maryland Department of Natural Resources ("DNR"), filed a Secretarial Letter (with less than seven signatures),[9] Initial Recommended Licensing Conditions,[10] the Direct Testimony of

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[5] Sol Ex. 5, Direct Testimony of Dane S. Bauer ("Bauer Direct").

[6] Sol Ex. 6, Direct Testimony of Howard Chang ("Chang Direct").

[7] Sol Ex. 7, Supplemental Direct Testimony of Dane S. Bauer ("Bauer Suppl.").

[8] Sol Ex. 8.

[9] PPRP Ex. 1.

[10] PPRP Ex. 2.

Frederick S. Kelley, a Program Manager with PPRP,[11] and a Draft Assessment of the Phoenix Solar Project.[12]

On September 14, 2017, Staff filed a Motion for Leave to File the Direct Testimony and Exhibits of Mikhail Ratushny, a Staff Engineer in the Commission's Division of Engineering.[13] No party opposed the Motion, and the Motion is hereby granted.

On September 18, 2017, the Commission received a copy of a letter addressed to Ms. Bains from The Maryland-National Capital Park and Planning Commission, Office of the Chairman, Prince George's County Planning Board ("MNCPPC").[14] According to the letter, the Prince George's County Planning Board ("Board") reviewed the Project at its regular meeting on September 14, 2017. The letter included the recommendations with regard to the Project made by the Board's staff ("MNCPPC Recommendations").

On September 28, 2017, a hearing for public comments was held in Largo, Maryland, but no member of the public appeared at the hearing. Neither the County Executive nor any member of the County's Council appeared at the hearing to sit jointly with the Chief Public Utility Law Judge.

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[11] PPRP Ex. 3, Direct Testimony of Frederick S. Kelley ("Kelley Direct").

[12] PPRP Ex. 4, PPRP Draft Assessment of the Phoenix Solar Project ("Assessment").

[13] Staff Ex. 1, Direct Testimony and Exhibits of Mikhail Ratushny ("Ratushny Direct").

[14] *See* Case No. 9446 Docket, Item No. 21.

On October 2, 2017, PPRP filed a fully executed Secretarial Letter[15] and revised Recommended Licensing Conditions (both a clean and redline version) in which PPRP modified Condition No. 12c.[16]

On October 2, 2017, the Applicant filed a letter in which it notified the Commission that it would not contest the proposed licensing conditions recommended by Staff and by PPRP, or the MNCPPC Recommendations (collectively, "Final Licensing Conditions").[17]

On October 4, 2017, an evidentiary hearing was held. All pre-filed testimony, documents, and exhibits were stipulated into the record. Mr. Chang appeared at the hearing and responded to the Chief Public Utility Law Judge's questions related to the height of the fence surrounding the Project, the MNCPPC's recommendation to have a fence that is esthetically pleasing, and any notice given to the Joint Base Andrews about the location of the Project. Mr. Kelley appeared at the hearing and addressed his interaction with Joint Base Andrews to obtain confirmation that Joint Base Andrews had no concerns about potential glare impact to its airstrips from the Project. No briefs were required as no contested issues were raised by any party.

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[15] PPRP Ex. 5.

[16] PPRP Ex. 6 (Clean version of Revised Recommended Licensing Conditions) and PPRP 7 (Redline version of Revised Recommended Licensing Conditions).

[17] Sol Ex. 11.

**Summary of Parties' Testimony**

**Company**

The Company's Environmental Review Document includes a Project Overview (Section 1), a Statement of Need and Purpose (Section 2), the Applicant Information (Section 3), the State and Local Permits and Approvals (Section 4), COMAR 20.79.03.01 Description of Generating Station (Section 5), and COMAR 20.79.03.02 Environmental Information (Section 6) as well as eleven appendices, six figures, and eight tables. Mr. Bauer sponsored Sections 1, 3, 4.C-F, 5A, and 5.B.1, and 6 of the ERD[18] and Attachment B to his testimony, a copy of the final correspondence from the Maryland Historical Trust ("MHT") (Exhibit 9 to ERD).[19] Mr. Chang sponsored Sections 5.B.2-7 and 5.C-1 of the Company ERD and Attachment A to his testimony, a full glare analysis and mitigation report prepared by the Barrett Energy Resources Group, which was finalized and received by the Applicant in May 2017.[20] Ms. Bains sponsored the remaining sections of the ERD[21] as well as Attachment A to her testimony, the PJM System Impact Study report, which was returned to the Applicant in April 2017.[22]

According to the Company ERD, the Project will be constructed on 12 acres of three parcels of leased land located in

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[18] Bauer Direct at 1.

[19] *Id.*

[20] Chang at 1.

[21] Bains at 1.

[22] *Id.* at 2.

an unincorporated area in Prince George's County.[23] The current zoning for the parcels is Residential Townhouse "R-T."[24] The Applicant explained that, as the parcels were used as a clean fill, this use has made the land for residences economically and logistically infeasible because the soil on the land would need to be compacted before it could support any significant construction.[25] The Applicant characterizes the method required to compact the soil to permit significant construction as "highly disruptive."[26] The Application represents that the land has been vacant and under-utilized for 20 years. The Applicant's planned use of the parcels will not require soil compaction for the entire site; compaction will be required only to ensure suitable soil condition for the concrete ballast blocks, inverter pads, and near the retaining walls.[27]

The Applicant described the Project as consisting of approximately 6,642 solar panels, installed using a ballasted racking system, arranged in portrait configuration with a bottom and top row of panels positioned vertically on each rack.[28] It said the space between each row will be approximately 12 feet, with the leading-edge height of the array between one foot and three feet

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[23] ERD at 1, 18, 35.

[24] *Id.*

[25] *Id.*

[26] *Id.* at 1.

[27] *Id.*

[28] *Id.* at 15.

from the grade and the top edge of the modules will be 5.5 feet to 7.5 feet from grade. The Applicant indicated that there will be two separate inverter skids, with each skid having a transformer to step up the AC voltage from the inverter output voltage of 418 Volts to 12 kilovolts for connection to the distribution feeder.[29]

As to economic benefits, the Applicant described the State's Renewable Portfolio Standards ("RPS") relating to solar and stated the Project will reduce Maryland's reliance on imported electricity and will contribute to the RPS.[30] Additionally, the Project has a capital cost of approximately $4 million to $5 million and will create approximately 20 to 25 design, management, and construction positions either at remote locations or at the Site at the height of construction, according to the Applicant.[31] The Applicant asserted that the Project will not detract from the value or diminish the characteristics of adjacent properties because of the buffers and vegetative screening to be installed around the Project.[32]

The Applicant stated that it initiated the interconnection process with PJM Interconnection, LLC ("PJM") and Potomac Electric Power Company ("Pepco") and represented the results of the preliminary PJM and Pepco interconnection studies

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[29] *Id.*

[30] *Id.* at 26.

[31] *Id.*

[32] *Id.*

showed no potential adverse impact to the stability or reliability of the local distribution system.[33] Ms. Bains included a copy of the PJM System Impact Study with her direct testimony.

The Company also identified the permits and approvals it will need from local, State, and other agencies in addition to the grant of the CPCN from the Commission.[34]

The Applicant has indicated that it will voluntarily comply with the County's Forest Conservation Ordinance ("FCO") and the State's Forest Conservation Act ("FCA") by developing the Forest Conservation Plan and Forest Conservation Easement ("FCE"), paying an in-lieu-of fee, and investigating the availability of nearby FCA mitigation banks.[35] According to the Applicant, the preliminary site layout requires that half of the site be cleared to trees, i.e., approximately 5 acres of the 12 acres on which the Project is proposed to be built. The Applicant expresses its preference to pursue an on-site FCE because developing the FCE would provide additional watershed protection along a tributary of the Anacostia River.

The Applicant asserts that the Property is not located in the Chesapeake Bay Critical Area or in any FEMA-mapped flood plains, but is located adjacent to the Watts Branch watershed that flows into the Anacostia River, which is a tributary to the Middle Potomac River and flows through the Washington, D.C. metropolitan

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[33] *Id.* at 11.

[34] *Id.* at 10-12.

[35] *Id.* at 12.

areas.[36] The Applicant describes the watershed as having a history of urban pollution from stormwater runoff and leaky sewer systems. It considers changing the use of the site from a rubble fill to a green project will stabilize the site from its landfill status and minimize future land disturbance as well as pollutant runoff.

The Applicant said it invited the Anacostia Watershed Society ("AWS") to visit the site and provide recommendations on additional landscaping to improve stormwater runoff.[37] After the visit, the Applicant represented AWS determined the current vegetation of the toe of the slopes in addition to any required erosion and sediment control features would be sufficient for protection of the streams present on the land. AWS also recommended the Applicant plant hardwood trees on the lower portion of the slopes to avoid shading the solar arrays and develop a habitat creation.[38]

Because the site has been historically used as a landfill, the Applicant described the property as being comprised of open fields and immature trees with a limited number and variety of habitats.[39] It stated that it did not expect any impact to critical habitats because of the poor quality of the tree lines separating properties and bordering nearby tributaries. In response to the AWS's recommendation of habitat creation, the

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[36] *Id.* at 1, 14, 28.

[37] *Id.* at 9.

[38] *Id.* at 30.

[39] *Id.*

Applicant noted that it is evaluating planting woody shrubs on the upper portions of the steep slopes to create new habitat and will also evaluate performing invasive vine removal and management to protect the native trees.[40]

As to fauna resources, the Applicant explained that because of the high level of disturbance at the site when it was used as a landfill for many years, the natural flora and fauna has been severely limited.[41] The Applicant identified the rare, threatened, or endangered species within Prince George's County appearing on the U.S. Fish & Wildlife Service, Environmental Conservation Online System, but the Phase 1/Phase 2 reports documented no presence of any of the identified species at the site.[42] In response to the Applicant's request, DNR confirmed that no other sensitive areas are documented at the site, which response also reflected U.S. Fish & Wildlife Service's response indicating no concern.[43]

In connection with historic resources that may be impacted by the Project, the Applicant asserted that there are no historic properties or archaeological artifacts/properties in the area of the Project site.[44] Along with his direct testimony, Mr. Bauer provided the Maryland Historical Trust response to the

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[40] *Id.*

[41] *Id.*

[42] *Id.* at 31.

[43] *Id.*

[44] *Id.*, Appendix 9.

Applicant's request, in which the MHT found no historic properties in the area in the areas of potential effect.[45]

The Applicant also noted that it organized and held a community meeting on January 18, 2017, after work hours in nearby Capitol Heights. The meeting was lightly attended, but the participants voiced positive support for the Project.[46] A copy of the flyer was provided in Appendix 10 to the ERD.

According to the Applicant, after its site visit, the Maryland Department of the Environment, Nontidal Wetlands Program, issued a memo dated March 6, 2017, confirming that no jurisdictional US waters or State waters, including wetlands, will be disturbed by the Project.[47] Further, the Applicant stated that it will need limited water, and no sewers are required for the Project; thus, the Project will not require surface or groundwater for construction.[48] The Applicant noted that any water needed during construction to control dust will be provided by a tanker truck. It asserted that the water quality leaving the Project site will be controlled by the Applicant obtaining the stormwater facility approvals, sediment and erosion control permits, grading permits, and Notice of Intent coverage under the National Pollutant Discharge Elimination System Program.

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[45] Bauer Direct, Attachment B.

[46] *Id.* at 32.

[47] *Id.* at 32.

[48] *Id.* at 35.

Noise during construction, according to the Applicant, will be maintained below the average 90-decibel rating at the property lines and construction will be conducted only during daylight hours.[49] Once constructed, the Applicant anticipates the transformers it will use for the Project will have a 50-decibel rating at 100 feet and a low-level noise of interior to the perimeter fence. It noted that noise reduction occurs at 6 decibels for every 100 feet of added distance. The Applicant concluded that, as the closest residential dwelling is approximately 200 feet away from the closest inverter pad, the decibel levels at the dwelling will be well below the 65/55 decibel levels (day/night levels, respectively) allowed by the Code of Maryland Regulations ("COMAR") 26.02.03.[50]

The Applicant addressed the lighting requirements and the results of its glare analysis. According to the Applicant, few lighting requirements exist for the Project. If any lights are installed, minimal lighting will be installed and will be fitted with down shield light fixtures.[51]

Based on the glare analysis, as supplemented in Mr. Chang's direct testimony, the Applicant asserted that the closest airport to the site, Joint Base Andrews ("Joint Base"), is approximately four miles away, and the glare analysis shows that

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[49] *Id.* at 18-19.

[50] *Id.*

[51] *Id.* at 19.

any impact is minimal from the Project's solar facility.[52] Mr. Chang, at the evidentiary hearing, stated that Joint Base had been advised by PPRP as to the location of the Project and the PPRP representative was advised that the Joint Base found no concerns as to any potential glare from the Project.[53] The glare analysis also found brief periods of glare impacts to residences to the east and west of the Project, but the Applicant stated the impact of the glare will be mitigated by the Project's vegetative screening.[54]

In regard to fencing and buffering landscape, in response to the MNCPPC recommendation to install an esthetically pleasing fence around the Project, the Applicant intends to install a seven-foot black chain link fence, in compliance with the National Electric Code, Section 101.31, and will install green vinyl covering on the fence to allow it to blend into the landscaping.[55] The buffer landscaping will consist of mature evergreen trees, ornamental trees, shrubs, and ground plane plantings.[56] To stabilize the Project site, the Applicant will maintain turf style grasses beneath and around the arrays, which

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[52] *Id.*

[53] Transcript at 15. Also, at the hearing, Mr. Kelley confirmed that he had reached out to the community liaison of the Joint Base to advise of the proposed solar array. After review, Mr. Kelley was told that the Joint Base had no concerns about the location of the Project. Transcript at 21.

[54] Chang Direct at 2.

[55] Transcript at 14.

[56] *Id.* at 20.

will be indigenous to the area and those typically recommended for use by Prince George's County.

During construction, the Applicant will have major material and equipment delivered to the Project site by tractor-trailers and offloaded by construction vehicles.[57] The Applicant expects the daily construction traffic to include cars, pickup trucks, and other personal vehicles. The truck deliveries would use Rollins Avenue to minimize neighborhood disturbance during the early phases of the construction when most of the deliveries occur.[58] After operation, the Applicant anticipates limited traffic to and from the solar array: primarily for mowing and vegetation maintenance.

As a solar facility, the Project, when operational, will not emit any pollutants and no impact on air quality will occur.[59] During construction, the Applicant described the primary air-quality issues being from dust from non-point sources, such as earthwork and construction traffic on unpaved road (i.e., fugitive dust). The Applicant expects the fugitive dust to be less than a normal construction project because the Project does not require excessive earthwork activities. The additional potential sources of pollutants during construction, as identified by the Applicant, are mobile internal combustion engines from earthwork equipment and an increase in vehicle traffic by workers, but the Applicant

[57] *Id.*

[58] *Id.* at 21.

[59] *Id.* at 34.

asserted the emissions from these sources should have little impact.[60] Further, it stated that the Project will have no impact on any attainment or nonattainment areas of the State.[61]

During construction, the Applicant represented that any waste material will be removed from the Project site by the contractor and taken to an approved waste handling facility, even though the Applicant does anticipate large amounts of waste during construction.[62] Once operational, the Applicant stated that there will be little or no waste material generated at the site. In the event that waste is generated, the Applicant indicated the waste will be removed and disposed of at an approved waste handling facility.

The Applicant also committed to providing to PPRP and the Commission a facility Decommissioning Plan, which outlines the responsible parties, timeframes, and estimated cost for decommissioning, dismantling, and removing properly all Project facilities at the end of its useful life.[63] The Applicant promised to secure the Decommissioning Plan via a financial guarantee to the State to ensure that the decommissioning costs are not borne by Prince George's County and/or the State at the end of the Project's useful life, with the parent company guarantee being in place prior to the commercial operations of the Project.

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[60] *Id.* at 34.

[61] *Id.*

[62] *Id.* at 35.

[63] *Id.* at 37.

Mr. Bauer filed his supplemental direct testimony to address two additional factors that the Commission will be required to consider prior to issuing a CPCN for a generating station, effective on October 1, 2017: (i) the consistency of the application with the comprehensive plan and zoning of each county or municipal corporation where any portion of the generating station is proposed to be located; and the (ii) the efforts to resolve any issues presented by a county or municipal corporation where any portion of the generating station is proposed to be located.[64] Mr. Bauer explained that the Project may obtain a special exception to use the Project site. Further, he said that as a "privately owned public utility," local zoning review is conducted by the MNCPPC.[65]

According to Mr. Bauer, the Applicant submitted its Mandatory Referral Program Intake Questionnaire to MNCPPC and received the MNCPPC response on December 8, 2016, stating that the Project is subject to the Mandatory Referral Program and not subject to Prince George's County zoning review, and is subject to Full Planning Board review.[66] Mr. Bauer explained the steps the Applicant must take as part of the Mandatory Referral Process and in applying for local site plan approval from the Prince George's County Department of Permitting, Inspections, and Enforcement. He asserted that the Project is consistent with Prince George's County

[64] Bauer Suppl. at 1, Fn 1.

[65] *Id.* at 2.

[66] *Id.* at 2-3.

zoning requirements and with Prince George's County Comprehensive Plan, even though the zoning requirements are not applicable to the Project because the Project is exempt from the local zoning requirements due to its inclusion in the Mandatory Referral Program.[67]

**PPRP**

Mr. Kelley provided a summary of findings and preliminary recommendations based upon PPRP's evaluation of the Project. Mr. Kelley also provided descriptions of the Project, the Project Site, and the Applicant's proposal to interconnect to PE's distribution system.[68]

Mr. Kelley explained that PPRP conducted its own environmental and socioeconomic evaluation of the Project by reviewing the Company's application and testimony, obtaining additional information to verify the Applicant's evaluations, and conducting a field review of the Project Site on May 3, 2017.[69] As a result of its assessment, PPRP developed its initial recommended licensing conditions that were approved by the respective Secretaries and Director of seven State agencies.[70]

Based on PPRP's review, Mr. Kelley stated that the Project was viable, specifically citing Maryland's RPS that

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[67] *Id.* at 4-5.

[68] Kelley Direct at 3-4.

[69] *Id.* at 5.

[70] *Id.* at 5; *see* PPRP Ex. 1 and 5.

requires 25% renewable energy by 2020, to include 2.5% from solar energy sources, and noting other incentives to develop solar power in Maryland, including tax credits, grants, loans, and rebate programs.[71] Mr. Kelley noted that solar projects "require open land free from shading impacts caused by nearby trees and high buildings."[72] Mr. Kelley explained that the Project site satisfies this requirement "with only limited tree coverage and sufficient land area not impacted by building shading."[73] Mr. Kelley further explained that should the Applicant obtain the necessary approvals and financing, the Project appeared viable.[74]

Mr. Kelley further testified that the Project would require clearing of trees on approximately half of the site, "including a stand of contiguous, higher quality forest."[75] Mr. Kelley explained that the FCA applies to this Project because any project that encompasses approximately one acre or more must submit a Forest Conservation Plan and a Forest Stand Delineation to the appropriate reviewing authority.[76] He explained, "Having little or no forest on-site does not exempt a development from the mitigation requirements of FCA, which may include, but are not

[71] Kelley Direct at 6.

[72] *Id.* at 7.

[73] *Id.*

[74] *Id.*

[75] *Id.* at 8.

[76] *Id.* at 9.

limited to, onsite retention or planting, off-site retention or planting, natural regeneration, or payment in lieu."[77]

Mr. Kelley also noted Prince George's County's FCO requires either a fee in lieu payment, mitigation "by planting trees at a two to one (2:1) ratio, or placing appropriate acreage of wooded area into a FCE."[78] The fee in-lieu payment to be paid to the Woodland Conservation Fund is set "at a rate of ninety cents ($0.90) per square foot of the conservation requirement within the designated Priority Funding Area or one dollar and eight cents ($1.08) per square foot of conservation requirement outside the designated Priority Funding Area."[79] PPRP notes that the Company "intends to voluntarily comply with the County forest conservation ordinance and the FCA, as it applies" through mitigation by either mitigation banks, establishing a FCE on the property, use of in-lieu of fees, or a combination of these options.[80]

In this case, Mr. Kelley indicated that trees will be removed from approximately 5 of the Project's 12 acres; therefore, PPRP recommended that reforestation be required.[81] PPRP recommended that the Applicant prepare and submit a Natural Resources Inventory and a Type 2 Forest Conservation Plan consistent with all ordinance requirements and including 2:1 mitigation for tree loss from the

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[77] *Id.* at 9.

[78] *Id.*

[79] Kelley Direct at 9.

[80] *Id.* at 9-10.

[81] *Id.* at 10; *see* PPRP Exs. 4, 6 and 7 at 4, para. 11.

forest site to Prince George's County, the MNCPPC, and PPRP.[82] PPRP recommended that all reforestation areas should be located in Prince George's County within the watershed of the Anacostia Scenic River, with priority to areas adjacent to Watts Branch, where possible.[83] PPRP also recommended that the Company implement an invasive species maintenance plan, re-stocking for a period of five years, with annual monitoring reports to encompass critical sapling establishment period in order to ensure survival of trees planted in reforestation efforts.[84]

Mr. Kelley further testified that the Project would negatively impact the types of vegetation that could grow in the site in the future,"[85] but notes that the Project includes plans to plant low cover grass on the array portion of the Project site, which could retain the soil in place and may replenish soil organic matter and essential plant nutrients.[86] PPRP recommended a vegetation management plan to "maintain natural resources at the site, create wildlife and pollinator habitat, and protect the stream that flows through the site."[87] The plan includes planting the areas beneath and between the solar panels with an herbaceous conservation cover and developing a grounds management plan,

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[82] Kelley Direct at 10; *see* PPRP Exs. 4, 6, 7 at 4, para. 11.

[83] Kelley Direct at 11.

[84] *Id.* *See* PPRP Exs. 4, 6, and 7 at 4, para. 11(d-e).

[85] Kelley Direct at 8.

[86] *Id.*

[87] *Id.* at 8. *See* PPRP Exs. 4, 6, and 7 at 4, para. 12.

including "a description of the species to be planted, the mowing schedule and grass height, a protocol for managing invasive species, and details of any planned herbicide or pesticide use."[88]

PPRP found the Project is not anticipated to have a significant impact on wildlife as the Project site, as a former landfill, has been subject to major disturbances over time, severely limiting the natural fauna at the site, which now offers little wildlife habitat.[89] Mr. Kelley further indicated the Project could have a positive impact by establishing and maintaining warm season grasses and low-growing pollinator-friendly plant species below and between the solar panels.[90]

However, Mr. Kelley testified that due to the removal of five acres of trees, there will be a permanent decrease in the available mature forest habitat, which will reduce the populations of species that use this type of habitat. PPRP notes that because this Project is located in an urban setting, "even small portions of contiguous forest are crucial to the survival of wildlife species, especially potential forest interior dwelling species."[91] Therefore, PPRP recommended requiring a minimum vegetation height of 10 inches on all parts of the site, and to minimize mowing from

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[88] Kelley Direct at 11.

[89] *Id.* at 11.

[90] *Id.*

[91] *Id.* at 12.

May through August of each year, during the nesting season of ground-nesting birds.[92]

Mr. Kelley testified that the Maryland Department of Natural Resources Wildlife and Heritage Service ("WHS") identified no State or federal records of threatened or endangered species within the Project area but noted that small streams and drainage ditches might still provide a possible habitat for rare, threatened, or endangered ("RTE") species.[93] Nevertheless, PPRP indicated that it is unlikely that any RTE species would be impacted at the Project site.[94] PPRP recommended that if any RTE species is identified at any stage of the project, the Applicant should coordinate with WHS to institute appropriate avoidance and/or minimization measures.[95]

PPRP found that the Project as proposed should avoid direct negative impacts to the stream, wetlands, and floodplains in and near the Project site.[96] Mr. Kelley stated that this Project is located adjacent to the Watts Branch watershed, which flows into the Anacostia River, which is a tributary to the Middle Potomac River.[97] The Watts Branch watershed is extremely small with a history of urban pollution from stormwater runoff and leaky sewer

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[92] *Id.* at 12; *see* PPRP Exs. 4, 6, and 7 at 5, para. 12(b)-(c).

[93] *Id.* at 12.

[94] *Id.* at 12-13.

[95] *Id.* at 13; *see* PPRP Exs. 4, 6 and 7 at 5, para. 13.

[96] Kelley Direct at 14.

[97] *Id.* at 13.

systems, with receiving streams classified as Use I-P (Water Contact Recreation and Protection of Aquatic Life).[98] The surface topography of this site mainly slopes moderately, but does evidence some steeper grades, all leading directly to the banks of Watts Branch, a jurisdictional water of the United States.[99] The site, as a former landfill, currently allows uncontrolled stormwater runoff; however, surface runoff will increase on more than half of the Project site due to the removal of trees.[100] PPRP recommends that the Company implement an Erosion and Sediment Control Plan using standard Best Management Practices to include appropriate stormwater quality and quantity control measures.[101] PPRP also recommended mandated transformer fluid spill containment,[102] and required assessment of all impacts to streams and their 100-year floodplains during and after construction.[103] Finally, in compliance with the Scenic River Act, PPRP recommended prioritizing reforestation mitigation to occur within the watershed of the Anacostia Scenic River, with priority to areas within the Watts Branch watershed, where possible.[104]

Mr. Kelley noted that the Project contains a proposal for an underground crossing of Watts Branch to connect the panel

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[98] *Id.* at 13.

[99] *Id.*

[100] *Id.* at 14

[101] *Id.* See PPRP Exs. 4, 6 and 7 at 3, para. 9.

[102] *Id.* See PPRP Exs. 4, 6, and 7 at 3, para. 8.

[103] *Id.* at 14-15. See PPRP Exs. 4, 6, and 7 at 3, para. 10.

[104] Kelley Direct at 15.

arrays.[105] Mr. Kelley testified that PPRP was unable to fully evaluate the impacts to natural resources due to a lack of technical details from the Applicant.[106] Mr. Kelley nonetheless testified that this proposed underground crossing "should not impact the quality of Watts Branch and its associated wetlands."[107]

In relation to the economic, demographic, and fiscal impacts of the Project, PPRP found that up to 20-35 direct design, management and construction jobs would be created, with many of the construction jobs likely being filled from the Capital region labor pool.[108] Mr. Kelley stated the job creation will positively impact the local economy (payrolls, consumption expenditures, local purchases of common construction materials).[109] The Project will not impact the population, housing, or public services as most of the construction workforce is within a daily commuting distance.[110] Therefore, PPRP found the Project would have a net benefit on both the County and the State. Mr. Kelley stated the Project's fiscal benefits will be from corporate income tax revenue, taxes on lease payments, and business personal property tax revenues.[111]

Regarding the Project's land use impact, Mr. Kelley testified that the project is in an unincorporated portion of

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[105] *Id.* at 14.

[106] *Id.*

[107] *Id.*

[108] *Id.* at 16.

[109] *Id.*

[110] *Id.* at 13.

[111] *Id.* at 16.

Prince George's County near the Town of Capital Heights, which is zoned Residential Townhouse (R-T), with residential neighborhoods surrounding the site to the north, east, and west.[112] The site is located within a Priority Funding Area, but not within the County's Priority Preservation Area or the Chesapeake Bay Critical Area.[113] Mr. Kelley testified that, provided PPRP's licensing conditions are adopted, the Project would not influence other properties' land uses in the area.[114] Relevant conditions proposed by PPRP include a requirement that the Applicant certify to PPRP and the Commission that it has obtained all required local permits for the Project's construction and operation, including Mandatory Referral approval from the Prince George's County Planning Department.[115]

Mr. Kelley determined that the Project's transportation-related impacts would be limited to the construction phase. He anticipated the level of service on the major and minor roads near the Project would not be affected.[116] However, PPRP recommended that the Company comply with various transportation-related permits from the State Highway Administration and the County.[117] He also indicated that the Project would not generate a significant amount of traffic post-construction.

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[112] *Id.* at 17.

[113] *Id.*

[114] *Id.* at 17.

[115] *Id.* *See* PPRP Exs. 4, 6, and 7 at 5, para. 15.

[116] *Id.* at 18.

[117] *Id.* *See* PPRP Exs. 4, 6, and 7 at 6, para. 16.

Mr. Kelley also testified regarding the Project's potential impact on the surrounding airspace and noted that the closest airport is Joint Base Andrews, which is approximately 4.5 miles away, and the closest heliport is Prince George's County Heliport, which is about 3.5 miles away.[118] PPRP concluded the Project would have no adverse impact upon air navigation.

Mr. Kelley determined that views of the property from the north, west, and south are fully or partially obscured by a woodland buffer; however, additional landscaping would be required to mitigate the view from some neighboring homes. PPRP testified that a landscape buffer consistent with the Prince George's County Landscape manual, and approved by Prince George's County and the local Soil Conservation Service District Office, will mitigate most views of the facility structures from adjoining public roads and properties.[119]

In terms of lighting, Mr. Kelley explained the Project would have few lighting requirements, but lighting may be necessary for either security or worker safety.[120] PPRP found that the Project would not create substantial light provided any lighting complied with the County's standards.

PPRP also addressed the potential for glare on surrounding residences and roadways. Mr. Kelley stated that PPRP's independent assessment "predicted glare with a potential to induce

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[118] *Id.* at 19.

[119] *Id.* at 20.

[120] *Id.*

a temporary after-image within the receptor's vision both east and west of the Project."[121] Mr. Kelley noted that Prince George's County Planning Department recommended that the Applicant continue to conduct glare analysis after the Project becomes operational, and to mitigate any glare impacts to residences as they are identified by providing landscaping adjacent to the affected properties. PPRP concluded that "landscape buffering in substantial conformance with Prince George's County's site plan review requirements and Mandatory Referral recommendations will mitigate glare trespass upon nearby public roads and properties."[122] PPRP recommended that the Company develop a process to address any glare-related complaints even though the likelihood of light trespass was minimal.[123]

In relation to impacts on historic sites, Mr. Kelley testified, "One property on the National Register of Historic Places is within one mile of the Project site. Several properties on the Maryland Inventory of Historic Properties are within one mile."[124] PPRP recommended that in the event relics or unforeseen archeological sites are revealed and identified during construction, the Applicant be required to work with the Maryland Historical Trust "to develop and implement a plan for avoidance and

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[121] *Id.*

[122] *Id.* at 21.

[123] *Id.* *See* PPRP Exs. 4, 6, and 7 at 6, para. 18.

[124] *Id.* at 21.

protection, data recovery, or destruction without recovery of such relics or sites."[125]

Mr. Kelley indicated that Old Central Avenue is a State-designated bicycle route, with a paved shoulder on the westbound lane, and a sidewalk bordering the eastbound lane.[126] PPRP concluded that there is no expectation of adverse impacts to cyclists by traffic generated by the Project's construction.[127]

PPRP anticipated no impacts on public services and safety during the Project's construction or operation. Mr. Kelley stated that post-construction, the risk of fire from ground-mounted photovoltaic systems is low provided that fuels are removed from under and near the solar arrays.[128] PPRP recommended that the Applicant design, install, and maintain the Project to meet the minimum standards set forth in the National Fire Protection Association's ("NFPA") 1 Fire Code Handbook and NFPA 70 National Electrical Code.[129] PPRP also recommended the Company coordinate with local fire companies and Prince George's County Fire/EMS Department to establish appropriate protocols to address on-site emergencies.[130]

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[125] *Id.* *See* PPRP Exs. 4, 6, and 7 at 6, para. 19.

[126] *Id.* at 21.

[127] *Id.*

[128] *Id.* at 22.

[129] *Id.* *See* PPRP Exs. 4, 6, and 7 at 6, para. 20.

[130] *Id.* at 23. *See* PPRP Exs. 4, 6, and 7 at 6, para. 21.

Mr. Kelley testified that due to the Project's minimal vertical profile and the proposed vegetation buffer, the Project will be largely out of sight from nearby properties.[131] Additionally, once the Project is operational, it will not create significant traffic, noise, pollution, or hazardous waste that could impact the public health.[132] Mr. Kelley also indicated that the site will be returned to its original state at the conclusion of the Project's useful life. Therefore, he concluded, "the local environment would be minimally affected by the Project," and "[t]hat the proposed facility would have a moderately benign local presence once the facility is operational suggests that property values would be unaffected by the Project."[133]

In terms of noise, Mr. Kelley discussed the allowable levels set forth in COMAR. PPRP recommended that construction and operation of the project comply with COMAR standards of 90 A-weighted decibel ("dBA") during daytime construction, 65 dBA post-construction during the day, and 55 dBA at night.[134] Mr. Kelley indicated that noise from solar generators is typically low. He testified that the closest residence to any of the inverter pads is approximately 150 feet.[135] Mr. Kelley testified that the Project would not create any noise noticeable above background levels at

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[131] *Id.* at 23.

[132] *Id.*

[133] *Id.*

[134] *Id.* at 23-24.

[135] *Id.* at 24.

nearby residences and that the project will comply with the requisite noise limits.[136]

Mr. Kelley also discussed the Project's potential impact on human health from electromagnetic fields ("EMF"). He stated that the EMF levels were projected to be well below the applicable standards and did not anticipate a potential health risk to nearby residents.[137]

**Staff**

Staff witness Ratushny testified as to the effect that the Project will have on the reliability and stability of the electric system in the State, a factor that the Commission must consider prior to issuing its decision on a CPCN application pursuant to PUA § 7-207(e)(1). Mr. Ratushny recommended that the Commission grant a CPCN to the Applicant, subject to four conditions:

> 1. The Applicant be required to execute a Wholesale Market Participation Agreement with Pepco, which shall be filed with the Commission upon execution, or to file with the Commission a statement that Pepco does not presently require a separate Interconnection Agreement for the Project.
>
> 2. The Applicant, its successors and assigns, be directed to provide to the Commission a 60-day written notice of any non-wholesale electricity sale to a Maryland retail electric customer and to comply with

[136] *Id.*

[137] *Id.* at 25.

applicable PJM requirement, Maryland law, and Commission regulations related to selling retail supply.

3. The Applicant, its successors and assigns, be directed to provide to the Commission written notice of any change of ownership of all or any portion of the Project, at least 30 days prior to the closing date of any sale to a third party with certain specific information contained in the notice.

4. The grant of the CPCN also should include any additional conditions proposed by other State agencies having jurisdiction in this proceeding.[138]

According to Mr. Ratushny, PJM has the responsibility to assess transmission system reliability and stability in Maryland. He explained generally the process by which PJM reviews proposed generating facilities to determine the effect of the facility on the electric grid in the PJM region that includes Maryland. He identified three studies that PJM conducts to perform its assessment: a Feasibility Study, the Impact Study, and the Facilities Study.[139] He said each of these studies is intended to determine what enhancements may be necessary to the transmission system to accommodate the interconnection of a facility and maintain the transmission system's reliability and stability. Additionally, he listed the three agreements that are entered into by the project developer with PJM and/or the local electric distribution company (Pepco in this matter): Wholesale Market

[138] Ratushny Direct at 2, 11-12.

[139] Ratushny Direct at 4.

Participants Agreement, Interconnection Service Agreement, and Construction Services Agreement.[140]

Mr. Ratushny stated that the Project has a PJM queue number of AB2-157. He indicated that Pepco had provided two possible options to interconnect the Project. Further, he delineated the interconnection and transmission network upgrade facilities identified in the Project's Facilities Interconnection Study.[141] Additionally, he explained why the stability analysis conducted by PJM is important when new facilities seek to interconnect with the transmission system. Mr. Ratushny said that the Project's compliance with Pepco's and PJM's interconnection requirements, and the completion of the requisite facility upgrades and milestones specified in the ISA or WMPA will assure no adverse impact to the reliability and stability of the electric transmission system.[142]

Mr. Ratushny considered the additional generation capability of the Project to be of benefit to Maryland and PJM. He noted that the State has Renewable Portfolio Standards that have the target of 20% by 2022, with 2% being supplied by solar generation. He said the Project would contribute to meeting the State's goal.[143]

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[140] *Id.*

[141] Ratushny Direct at 7.

[142] *Id.*

[143] Ratushny Direct at 11.

**Applicable Law**

The Application was filed pursuant to § 7-207 of the Public Utilities Article, *Annotated Code of Maryland*. Pursuant to § 7-207(e) in effect at the time the Application was filed, the Commission shall take action on an application for CPCN only after due consideration of the following factors:

> (1) the recommendation of the governing body of each county or municipal corporation in which any portion of the construction of the generating station or overhead transmission line, or qualified generator lead line is proposed to be located;
>
> (2) the effect of the generating station, overhead transmission line, or qualified generator lead lines on:
>
> (i) the stability and reliability of the electric system;
>
> (ii) economics;
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> (iii) esthetics;
>
> (iv) historic sites;
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> (v) aviation safety as determined by the Maryland Aviation Administration and the administrator of the Federal Aviation Administration;
>
> (vi) when applicable, air and water pollution; and
>
> (vii) the availability and means for the required timely disposal of wastes produced by any generating station.

Effective October 1, 2017, a modification to PUA § 7-207(e) enacted during the 2017 General Assembly requires the Commission to consider the following factors prior to issuing a CPCN for a generating station:

> (i) the consistency of the application with the comprehensive plan and zoning of each county or municipal corporation where any portion of the generating station is proposed to be located; and
>
> (ii) the efforts to resolve any issues presented by a county or municipal corporation where any portion of the generating station is proposed to be located.

The burden is on the applicant to demonstrate that the Project meets the public convenience and necessity.[144]

**Findings**

PPRP and Staff each recommended grant of a CPCN as long as the grant is subject to the conditions recommend by PPRP and by Staff, respectively. The Applicant does not object to any of the recommended conditions and has accepted each of PPRP's and Staff's recommended conditions as well as the conditions recommended by the MNCPPC. OPC did not present evidence in the matter. Accordingly, I conclude the Applicant's evidence supports the grant of a CPCN, subject to the conditions recommended by PPRP, Staff, and MNCPPC.

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[144] *In Re Potomac Edison Co. dba Allegheny Power*, 97 Md. P.S.C. 239, 243 (2006).

Based upon my consideration of the evidence summarized herein, I make the following findings:

I find that the Prince George's County Commissioners have submitted no comments or testimony in the matter for my consideration.

I find that the evidence is undisputed that the Project can be built and operated without any negative effects to the stability and reliability of the electric system and grid.

I find that the Project will have some, but limited, benefit to the economy in the form of creating construction jobs and increasing tax revenues to the County and State. Additionally, once completed, the Project's energy capability will contribute to Maryland's Renewable Energy Standards Portfolio.

Subject to the applicable licensing conditions, I find that the Project will have no negative affects on esthetics at the Project Site or nearby properties. Further, subject to the applicable licensing conditions requiring landscape buffers, I find the construction of the Project will not adversely affect adjacent or nearby property use or value.

Subject to the applicable licensing conditions, I find that the Project will have no negative impacts on historic sites and, if any archeological resources are found on the site, the Applicant will coordinate with MHT to preserve the resources.

I find that the Project will have no adverse impact on aviation safety.

I find that the Project will have no adverse effects on air or water pollution.

I find that the Project will produce minimal quantities of waste, which waste will be timely disposed of at an off-site licensed landfill.

I find PPRP's Condition No. 11 (Forest Conservation Act compliance) to be appropriate, especially as the Applicant has stated that it will voluntarily comply with the County's Forest Conservation Ordinance and the State's Forest Conservation Act.

Subject to applicable licensing conditions, I find construction and operation of the Project will not adversely impact any rare, threatened, and endangered species.

Subject to applicable licensing conditions, I find the noise levels during construction and upon the facility's operation will not adversely affect any persons residing adjacent or near the Project.

Subject to the applicable licensing conditions, I find that neither the potential glare nor lighting from the Project will create any significant disturbance to the residential neighbors or aviation safety.

Subject to the applicable licensing conditions, I find the traffic during construction and operation of the Project will have minimal adverse impact on the adjacent residential neighborhoods.

Subject to the applicable licensing conditions, I find no financial costs will be borne by the State or County's taxpayers at the time the Project is decommissioned.

I find no evidence in the record rebutting the Applicant's assertion that the Project is consistent with the Prince George's Comprehensive Plan. I further find that the Applicant has made substantial efforts to engage the surrounding community, the local government agencies, and the AWS to create a green project that will improve Watts Branch watershed and will not change the overall character of the surrounding communities.

I therefore find the Project, as inclusive of the Final Licensing Conditions as proposed by PPRP, by Staff, and by MNCPPC, attached hereto as Appendices A, B, and C, respectively, and made a part hereof, to be in the public convenience and necessity.

**Request to Shorten Appeal Period**

On October 17, 2017, the Applicant filed a letter asking that the appeal period for the Proposed Order be shortened to 14 days pursuant to PUA § 3-113(d)(2)(ii). The Applicant explained that it was facing a critical financing deadline at the end of the year and did not expect any appeal of the Proposed Order by the other parties to the matter inasmuch as the Applicant had accepted the proposed licensing conditions of PPRP and Staff. Staff does not oppose the request.

In considering the Applicant's request, I take into account that the Proposed Order is being issued two weeks earlier than the target date as proposed by the parties and that the Commission must be given adequate time to review the Proposed Order, even if no appeal of the Proposed Order is expected. Consequently, I deny the Applicant's request to shorten the appeal period to 14 days and find a 21-day appeal period is more appropriate. Accordingly, the period to file an appeal is shortened to 21 days.

IT IS, THEREFORE, this 18th day of October, in the year Two Thousand Seventeen,

ORDERED: (1) That the Application filed by Sol Phoenix Solar, LLC for a Certificate of Public Convenience and Necessity to construct a 2.5 MW solar photovoltaic generating facility in Prince George's County, Maryland, is hereby granted in accordance with the findings and decision rendered herein.

(2) That the conditions in Appendices A, B, and C attached hereto and incorporated herein are hereby accepted as licensing conditions of the Certificate of Public Convenience and Necessity in accordance with the findings of this Proposed Order.

(3) That this Proposed Order will become a final order of the Commission on November 9, 2017, unless before that date an appeal is noted with the Commission by any party to this proceeding as provided in Section 3-113(d)(2) of the Public

Utilities Article, or the Commission modifies or reverses the Proposed Order or initiates further proceedings in this matter as provided in Section 3-114(c)(2) of the Public Utilities Article.

Terry J. Romine
Chief Public Utility Law Judge
Public Service Commission of Maryland

**Initial Recommended License Conditions**
**PSC Case No. 9446**
**Sol Phoenix Solar, LLC**

1. Applicability of Conditions - Except as otherwise provided for in the following provisions, the application ("Application") for the Certificate of Public Convenience and Necessity ("CPCN") is considered to be part of this CPCN for the Sol Phoenix Solar, LLC (Phoenix Solar) Project ("Project"). The Application consists of the original application filed with the Maryland Public Service Commission ("PSC" or "Commission") on April 11, 2017; and direct testimony filed on May 31, 2017. Construction and operation of the Project shall be undertaken in accordance with these conditions. If there are any inconsistencies between the conditions specified below and the Application, the conditions in this CPCN shall take precedence. If CPCN conditions incorporate federal or State laws through paraphrased language, the precise reading of the federal or State laws shall take precedence if there is any inconsistency.

2. Project Scope - The Project shall be constructed as a fixed-tilt photovoltaic (PV) system with a rated capacity of up to 2.5 megawatts (MW) of alternating current (AC) electric power. The Project is to be constructed within the limit of disturbance and approximate dimensions (surface, in total acreage, and height) as described in the Application or, if applicable, otherwise incorporated into the CPCN. Changes to these specifications are not covered by the CPCN and must be reviewed and approved by the PSC and the Power Plant Research Program ("PPRP").

3. CPCN Expiration - Construction of the Project must commence within three (3) years of receiving the CPCN and must be completed for operation not later than four (4) years after receipt of the CPCN; otherwise, the CPCN shall expire and no longer constitute authorization to construct and operate the Project.

4. Applicable Laws and Regulations - Construction and operation of the solar facility shall be undertaken in accordance with this certificate and shall comply with all applicable local, State, and federal laws and regulations, including but not limited to the following:

   a. Nontidal Wetlands – COMAR 26.23.01 applies to activities conducted in nontidal wetlands and wetland buffer.

   b. Waterway Construction – COMAR 26.17.04 applies to regulations governing construction activities in nontidal waters and floodplains.

   c. Water Quality and Water Pollution Control – COMAR 26.08.01 through COMAR 26.08.04 apply to discharges to waters of the State and maintenance of surface water quality.

   d. Erosion, Sediment and Storm Water Control – COMAR 26.17.01 applies to the preparation, submittal, review, approval, and enforcement of erosion,

sediment and storm water control plans, including any dewatering plans and associated water recycling plans.

e. Oil Pollution Control – EPA 40 CFR 112 and COMAR 26.10.01.12 apply to the procedures for oil spill control.

f. Forest Conservation –Maryland's Forest Conservation Act (FCA), Md. Code, Sections 5-1602(b)(5) and 5-1603 of the Natural Resources Article.

g. Scenic and Wild River-Maryland's Scenic and Wild River Act, MD. Code, Section 8-401 et seq. of the Natural Resources Article.

h. Particulate Matter from Materials Handling and Construction - COMAR 26.11.06.03D, applies to airborne particulate matter such that a person may not cause or permit any material to be handled, transported, or stored, or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.

i. Nuisance - COMAR 26.11.06.08, applies to the creation of nuisance or air pollution such that an installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be construed as authorizing or permitting the creation of, or maintenance of, a nuisance or air pollution.

j. Odors - COMAR 26.11.06.09, applies to the discharge of air pollution such that a person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that a nuisance or air pollution is created.

k. Noise - COMAR 26.02.03 and relevant Prince George's County noise ordnances regulations shall apply to the construction and operation of the Project. Facility operation shall not create a noise level greater than 55 dBA at any adjacent residential property during the operational life of the Project.

5. Site Control – In accordance with COMAR 20.79.03.01, prior to construction, Sol Phoenix Solar shall provide PPRP and the PSC with a copy of the purchase agreement, land lease, or similar agreement with the owners of the property on which the Project site is located. Sol Phoenix Solar shall also identify any applicable term of the purchase agreement, land use, or similar agreement and provide assurances to PPRP and the PSC that such term of the purchase agreement, land lease, or similar agreement meets or exceeds any applicable Power Purchase Agreement ("PPA") term and includes any time necessary for complete closure and removal of the Project facilities.

6. Project As-Built Details - Sol Phoenix Solar shall provide to the PPRP, the PSC, and Prince George's County, the as-built details within 30 days of

commencement of operation for the following: engineering and construction plans for the Project, including the total acreage of the Project site; the PV panel and module type, dimensions, and locations; and a consistent count of the number of PV modules, a consistent count of the number of support posts for the PV modules, as well as a consistent number of ballasted foundations and height of the PV panels above grade. Where the as-built details are identical to those submitted with the CPCN application, Sol Phoenix Solar shall provide a statement to this effect and not resubmit the information.

7. Project Layout - In addition, Sol Phoenix Solar shall provide the PPRP and the PSC with information showing the layout of the power centers, electrical collector lines, and substation for the Project. Prior to formally submitting the Construction Drawing Plan Review application and building permit application to Prince George's County for review and permitting, Sol Phoenix Solar shall consult with Prince George's County regarding the proposed layout of the collector lines in relation to the existing infrastructure (both above ground and below grade) and buildings, as well as the proposed internal site access roads, underground utilities, and storm water management systems.

8. Spill Control - Watts Branch and its associated wetlands, as well as any other wetland areas on the Project site, shall be protected from spills or leaks of transformer fluids or other biologically detrimental substances by appropriate containment structures.

9. Sediment Control - Sol Phoenix Solar shall employ erosion and sediment control best management practices (BMPs) presented in the Maryland Department of the Environment (MDE) document titled, 2011 Maryland Standard s and Specifications for Soil Erosion and Sediment Control, and as otherwise may be approved or required by Prince George's County. All portions of the Project site disturbed during construction shall be stabilized as soon as practicable after the cessation of construction activities within that portion of the site, followed by seed application, in accordance with the above-cited document.

10. Stream/Wetlands Impacts - Any impacts (temporary or permanent) to streams and their 100-year floodplains shall be assessed, and where possible quantified, by Sol Phoenix Solar prior to any construction actives.

    a. Construction of the Project shall not disturb or remove vegetation within 25-foot buffers of Watts Branch, a tributary to the Anacostia Scenic River, the wetlands associated with it or any other wetlands on the Project site. During construction, flagging, fencing, access barriers, and any other necessary measures shall be used to ensure that these areas are not disturbed by construction personnel, equipment, or activities.

    b. Sol Phoenix Solar shall provide PPRP with technical plans regarding the crossing of Watts Branch for the connection between the proposed solar arrays. If this crossing is underground, all geotechnical information

related to this crossing must be provided and a Joint Permit Application must be submitted to MDE and the USACE.

11. Forest Conservation - Sol Phoenix Solar shall develop and implement a forest planting plan that complies with Prince George's County's Woodland and Wildlife Habitat Conservation Ordinance implementing the Maryland FCA.

    a. Prior to the start of construction, Sol Phoenix Solar shall prepare and submit to Prince George's County and Maryland National Capitol Parks and Planning Commission (MNCPPC) for approval and to PPRP for review a Natural Resources Inventory (NRI) and a Type 2 Tree Conservation Plan that is consistent with all ordinance requirements and includes a 2:1 mitigation for tree loss from the forest site. In no case shall the mitigation required by the County be less than that required by the Maryland FCA.

    b. The Tree Conservation Plan shall give priority to reforestation of areas adjacent to Watts Branch, a tributary to the Anacostia Scenic River, and its associated wetlands.

    c. Where possible, all reforestation area(s) shall be located in Prince George's County within the watershed of the Anacostia Scenic River, and shall be designed to contribute to the maximum extent practicable to improving the water quality of the River.

    d. For a period of 5 years subsequent to planting of the reforestation areas, Sol Phoenix Solar shall maintain these areas free of invasive species and shall monitor them to ensure survival of the plantings. During this period, the areas shall be restocked annually to the planned stem density to compensate for seedling mortality.

    e. During the 5-year monitoring period, annual monitoring reports - including the number of dead trees replaced with new plantings; statistical estimates of live stem density, average stem diameter, average height, and biomass; and a professional assessment of the general condition of the trees - shall be provided to Prince George's County, the DNR Forest Service, and PPRP.

12. Vegetation Management Plan – The grounds of the Project, beneath and between the solar panels, shall be established with an herbaceous conservation cover planting selected from the Natural Resources Conservation Service's Maryland Conservation Planting Guide: https://efotg.sc.egov.usda.gov/references/public/MW/MD_Cons_Planting_Guide_1_18_17_Final_2-sided-print.pdf Further, Sol Phoenix Solar shall, prior to commencement of Project construction, develop and submit to PPRP for review a grounds management plan that includes the following:

    a. Description of grasses and plant species to be maintained at the site;

b. Schedule for mowing that avoids or minimizes mowing activities during the nesting season of most ground-nesting birds (i.e., May through August);

c. Restriction of grass mowing height at all times to not less than 10 inches except where this would present a fire hazard, impede required access to equipment, or interfere with operations of the Project;

d. Protocol for managing invasive plant species; and

e. Discussion of herbicides and pesticides approved for use at the Project site, and details describing the circumstances of their use.

13. Rare, Threatened, or Endangered Species – Sol Phoenix Solar shall notify and consult with the Maryland Department of Natural Resources, Wildlife and Heritage Service to determine appropriate actions if any rare, threatened, or endangered species are encountered during planning, construction, operation, or maintenance of this facility.

14. Access - Representatives of the PSC, DNR and Prince George's County shall be afforded access to the Sol Phoenix Solar site at any reasonable time, with appropriate notification, to conduct inspections and evaluations necessary to assure compliance with the CPCN requirements. Sol Phoenix Solar shall provide assistance as reasonably may be necessary to conduct inspections and evaluations effectively and safely, which may include, but need not be limited to, the following:

a. Inspecting construction authorized under this CPCN;

b. Having access to or copying any records that Sol Phoenix Solar is required to keep pursuant to this CPCN or applicable regulations;

c. Obtaining any photographic documentation and evidence; and

d. Determining compliance with the conditions and regulations specified in the CPCN.

15. Site Plan - Prior to the commencement of Project construction, Sol Phoenix Solar shall certify to the PSC and to PPRP that it has designed the facility in substantial conformity to Prince George's County's Site Plan requirements and has received Mandatory Referral approval from Prince George's County. Sol Phoenix Solar shall submit the approved Site Plan, and Landscaping Plan documenting its visual mitigation strategy to PPRP and PSC for review prior to operation of the facility.

16. Road Permits – Sol Phoenix Solar shall comply with all permit requirements and restrictions for use, crossing and occupancy of State and Prince George's County roads, and obtain appropriate approvals as necessary.

17. Routing and Traffic Plan – Should any oversize/overweight loads be transported on local roads, Sol Phoenix Solar shall submit a travel routing and

maintenance of traffic plan to the Prince George's County Department of Permitting, Inspection and Enforcement at least five days prior to dispatching oversize/overweight vehicles.

18. Reflective Glare - Sol Phoenix Solar shall develop a process to document and address admissible complaints related to potential solar reflections. An admissible complaint shall be one formally submitted in writing to Sol Phoenix Solar within two years of the Project's commencement of operation. Sol Phoenix Solar shall provide to the PSC and PPRP both a copy of the complaint and its response to the complaint. Sol Phoenix Solar's response to any written complaint shall clearly inform the aggrieved party that if not satisfied with Sol Phoenix Solar's response, the aggrieved party may seek relief by filing a complaint with the PSC. If the PSC determines after notice and an opportunity to be heard that the complaint is justified, it may direct Sol Phoenix Solar to prepare and implement a screening plan to mitigate impacts from reflective glare upon the affected property. The screening plan shall be in conformance with all applicable State and local laws and regulations.

19. Archeological Discoveries - In the event that relics from unforeseen archeological sites are revealed and identified during construction, Sol Phoenix Solar, in consultation with and as approved by the Maryland Historic Trust (MHT), shall develop and implement a plan for avoidance and protection, data recovery, or destruction without recovery of such relics or sites.

20. Fire Safety - Sol Phoenix Solar shall design, install and maintain the Project to meet all applicable minimum standards set forth in the National Fire Protection Association (NFPA) 70: National Electrical Code and all applicable minimum standards appropriate for ground-mounted solar facilities set forth in NFPA 1: Fire Code.

21. Emergency Preparedness – Prior to the commencement of construction, Sol Phoenix Solar shall contact the Prince George's County Fire/EMS Department, Capitol Heights VFD and Seat Pleasant VFD to establish points of contact and timely response options, facilitate emergency vehicle access throughout the site, create a consistent marking protocol for the identification of system components that require special attention during an emergency, and develop appropriate Standard Operating Procedures or Standard Operating Guidelines for addressing on-site emergencies.

22. Solar Decommissioning:

    a. At least 90 days prior to the start of construction, Sol Phoenix Solar shall submit a decommissioning plan to the PSC and PPRP for review. The decommissioning plan shall describe the responsible party(ies), timeframes, and estimated costs for decommissioning, dismantling, and legal disposal of all components, including cables, wiring, and foundations below ground surface. The plan shall address site conditions after decommissioning, including stabilization, grading and seeding all

disturbed areas. The plan shall maximize the extent of component recycling and reuse, where practicable, and ensure all materials are handled in accordance with applicable federal, State, county, and local requirements. Sol Phoenix Solar shall not begin construction until Sol Phoenix Solar has addressed all comments from the PSC and PPRP, the PSC has approved the plan, and all specified financial guaranties are in place. The approved plan, and any updated plans, shall be filed in the PSC docket for Case No. 9446.

b. Sol Phoenix Solar shall implement a financial mechanism to ensure that decommissioning costs are not borne by the State and/or the County at the end of the useful life of the Project or in the event of abandonment of the Project. The Project will be considered to be abandoned if the Project is non-operational for a period on one (1) year. The financial instrument may be in the form of a surety bond, a corporate guaranty, a letter of credit issued by a financial institution, or other alternative arrangement and must be in place prior to the commencement of construction of the Project. The financial mechanism is subject to the approval of the PSC, and PSC evaluation of the financial mechanism will consider the credit-worthiness and financial capabilities of the counter-party(ies).

c. Sol Phoenix Solar shall develop an estimate of decommissioning costs by a third party consultant to determine the amount of the decommissioning performance bond, corporate guarantee, or letter of credit. The cost estimate shall address provisions for the safe removal and proper disposal of all components of the Project, including any components containing hazardous or toxic materials, minus salvage value. Over the life of the Project, Sol Phoenix Solar shall update the decommissioning cost estimate every five (5) years after the issuance of the CPCN to adjust for inflation, changes in salvage market conditions, and any other necessary changes. Sol Phoenix Solar shall provide the revised cost estimate to the PSC, file the revised cost estimate in the PSC docket for Case No. 9446, and execute an adjustment to the financial guarantee mechanism.

d. Sol Phoenix Solar shall notify the PSC and PPRP prior to implementing the approved decommissioning plan with 180 days after the Project ceases to generate electricity for sale.

23. Property Transfer - All provisions and requirements of this CPCN shall apply to any and all subsequent owners and/or operators of the solar facility. In the event of any pending change in control or ownership, the current owner/operator shall notify the succeeding owner/operator of the existence of the requirements of this CPCN by letter and shall send a copy of this letter to the PSC and PPRP.

24. Submissions to PPRP - Informational copies of the required communications, reports or studies referenced in the preceding recommended license conditions shall be sent to the PSC and PPRP by e-mail (and by mail if requested) at:

Director
Power Plant Assessment Division
Department of Natural Resources
Tawes State Office Bldg., B-3
580 Taylor Avenue
Annapolis, Maryland 21401
e-mail: pprp.dnr@maryland.gov

**Recommended Licensing Conditions of the Public Service Commission Staff**
**Sol Phoenix Solar, LLC – Case No. 9446**

1. Grant a CPCN to Sol Phoenix Solar, LLC ("SPSL") for the Sol Phoenix Solar Project ("Project"), a 2.5 MW solar generating facility in Prince George's County, Maryland; and

2. Require execution of a distribution Interconnection Agreement with the state regulated Potomac Electric Power Company ("PEPCO") distribution company, or Wholesale Market Participation Agreement ("WMPA"), or a statement that the PEPCO state regulated distribution company does not presently require a separate Interconnection Agreement for this project be filed with the Commission prior to construction; and

3. Require SPSL, its successors and assigns, to provide sixty (60) day written notice to the Commission of any non-wholesale electricity sale to a Maryland retail electric customer and comply with all regulations regarding such sale, including obtaining any requisite Interconnection Agreement(s), PJM System Impact Study and retail supplier approvals prior to delivering electricity into the respective distribution systems of Maryland electric companies such as PEPCO; and

4. Require SPSL, its successors and assigns, to provide written notice of any change in ownership of all, or any portion of the Project, at least thirty days prior to the closing date of any sale to a third party. The written notice should include, but not be limited to, the identity of the third party, contact information to receive any Commission inquiries, the proposed effective date of any change in ownership, and documentation that demonstrates the capability of the prospective owner to operate and maintain the Project and to perform in accordance with any CPCN issued in this proceeding; and

5. Include any additional conditions proposed by the other State agencies having jurisdiction in this proceeding.

APPENDIX C

STATE OF MARYLAND
PUBLIC SERVICE COMMISSION

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

14741 Governor Oden Bowie Drive
Upper Marlboro, Maryland 20772
www.mncppc.org/pgco

Office of the Chairman
Prince George's County Planning Board

(301) 952-3561

ML 217003

September 14, 2017

9446 FILED

SEP 18 2017

PUBLIC SERVICE COMM
OF MARYLAND

Ms. Anjali Bains, Associate
Utility Origination
Sol Systems, LLC
1718 Connecticut Avenue, NW, Suite 300
Washington, DC 20009

**RE: Phoenix Solar Array Project**
**(MR-1629F)**

Dear Ms. Bains:

The Prince George's County Planning Board had the opportunity to review the proposed three-solar array system project during its regular meeting on September 14, 2017. A copy of the staff report is enclosed for your records. The staff recommendations are as follows:

**Phoenix Solar Array Project**

- The applicant is encouraged to revise the plans to clearly identify the extent of the site, consistent with existing record plats of the property.
- It is recommended that the Solar Glare Hazard Analysis Tool (SGHAT) analysis continue to be conducted and if glare impacts to residences are identified they should be mitigated by preservation of existing trees or by providing landscaping adjacent to the affected properties.
- Staff approves of the applicant's proposed landscape buffer in accordance with the *2010 Prince George's County Landscape Manual.*
- Staff recommends that the chain link security fences proposed be replaced with a more aesthetically pleasing style of fencing.
- Any lighting for security, maintenance operations, or as required through the CPCN review process should be fitted with full cut-off fixtures.
- The project will require a Natural Resource Inventory (NRI) from The Maryland-National Capital Park and Planning Commission (M-NCPPC), and a grading permit from the Prince George's County Department of Permitting, Inspections and Enforcement (DPIE). The 100-year floodplain on the site is subject to local approval and approval must be obtained prior to the acceptance of the NRI application.
- As agreed to by the applicant a Type 2 Tree Conservation Plan (TCP2) will be required before any permits are issued for the project.

- For vegetative management on the site for enhancement of the habitat and pollinator value, it is recommended that an herbaceous cover mix be selected from the Natural Resources Conservation Service Conservation Practice Standard for Conservation Cover (Code 327), Table 2: Selected List of Herbaceous Cover Mixes based on the specific characteristics of the site.

Should you have questions or require additional information regarding the enclosed staff report, please do not hesitate to contact Theodore W. Kowaluk, Planner Coordinator, at 301-952-3209 or via email at Ted.Kowaluk@ppd.mncppc.org.

Sincerely,

Elizabeth M. Hewlett
Chairman

Enclosure

c: Councilmember Karen R. Toles, Prince George's County Council
W. Kevin Hughes, Esq., Chair, Maryland Public Service Commission
David Collin, Executive Secretary, Maryland Public Service Commission
Redis C. Floyd, Clerk of the Council, Prince George's County Council
Andree Green Checkley, Planning Director, Prince George's County Planning Department
Derick Berlage, Chief, Countywide Planning Division
Maria Ann Martin, Planning Supervisor, Special Projects Section, Countywide Planning Division
Theodore W. Kowaluk, Planner Coordinator, Special Projects Section, Countywide Planning Division