

**STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH**

DOCKET NO. EMP-112, SUB 0

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of Application of Oak Solar, LLC, for a Certificate of Public Convenience and Necessity to Construct a 120-MW Solar Facility in Northampton County, North Carolina	) ) ) ) ) )	ORDER ISSUING CERTIFICATE FOR MERCHANT GENERATING FACILITY
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BY THE COMMISSION: On July 15, 2020, Gaston Green Acres Solar, LLC, now known as Oak Solar, LLC (Applicant), filed an application pursuant to N.C. Gen. Stat. § 62-110.1 and Commission Rule R8-63 for a certificate of public convenience and necessity (CPCN) to construct a solar photovoltaic (PV) electric generating facility to be located in Northampton County, North Carolina, and to be operated as a merchant generating facility. On that same date, the Applicant filed the testimony and exhibits of witness Linda Nwadike.

**PROCEDURAL HISTORY**

On July 29, 2020, the Public Staff filed a Notice of Completeness stating that it had reviewed the application as required by Commission Rule R8-63(d) and considered the application to be complete. The Public Staff requested that the Commission issue a procedural order setting the matter for hearing, requiring public notice, and addressing any other procedural matters.

On September 28, 2020, the Commission issued an Order Requiring Filing of Testimony, Establishing Procedural Guidelines, and Requiring Public Notice (First Scheduling Order).

On October 19, 2020, the Applicant filed the supplemental testimony of Linda Nwadike.

On October 23, 2020, the Applicant filed a Notice of Name Change and Motion to Amend Application and Caption to reflect its new corporate name, Oak Solar, LLC.

On October 30, 2020, and November 3, 2020, the Applicant filed its affidavit of publication, evidencing that the Applicant caused the public notice to be published as required in the First Scheduling Order.

On November 3, 2020, the Applicant filed a motion to continue the remote public witness hearing scheduled in this docket. On November 4, 2020, the Commission issued an Order granting that motion.

On November 4, 2020, the State Clearinghouse filed a letter seeking additional information from the Applicant.

On November 12, 2020, the Applicant filed a motion to amend its application to divide the original project into two separate projects. The Applicant now seeks a CPCN to construct a facility with 120 MW of capacity in this docket and separately filed an application for the remaining portion of the original 300 MW in Docket No. EMP-115, Sub 0. With its amended application, the Applicant filed the testimony of Linda Nwadike. On December 3, 2020, the Commission issued an order granting the Applicant's motion.

On December 18, 2020, the Commission issued its second Order Requiring Filing of Testimony, Establishing Procedural Guidelines, and Requiring Public Notice (Second Scheduling Order). In addition, the Commission notified the State Clearinghouse of the amended application. The Second Scheduling Order, among other things, scheduled a hearing on May 6, 2021, for the purpose of receiving expert witness testimony regarding the application.

On January 21, 2021, the Applicant filed its Affidavit of Publication, evidencing that the Applicant caused the Public Notice to be published as required by the Second Scheduling Order.

On January 25, 2021, the State Clearinghouse filed comments requesting additional information from the Applicant.

On February 3, 2021, the Commission issued an Order Canceling Public Witness Hearing, canceling the hearing for the purpose of receiving public witness testimony scheduled for February 4, 2021.

On February 25, 2021, the Applicant filed the additional supplemental testimony of Linda Nwadike.

On March 23, 2021, the Public Staff filed the testimony of witness Jay B. Lucas wherein Mr. Lucas, on behalf of the Public Staff, recommended that the Commission grant the Applicant the requested CPCN subject to certain conditions.

On April 14, 2021, the Applicant filed a letter stating that it would not file rebuttal testimony and that it does not object to the issuance of the requested CPCN subject to the conditions recommended by the Public Staff.

On April 28, 2021, the Applicant filed a motion to cancel the hearing scheduled for May 6, 2021, for the purpose of receiving expert witness testimony.

On May 3, 2021, the Commission issued an Order Canceling the Expert Witness hearing.

On September 30, 2021, the State Clearinghouse filed comments stating that it had determined that no further State Clearinghouse review action is needed for compliance with the North Carolina Environmental Policy Act.

## **DISCUSSION AND CONCLUSIONS**

After careful consideration, the Commission finds good cause to approve the application and issue the requested CPCN for the Facility, subject to certain conditions.

Rule R8-63(b)(3) requires a merchant plant application to include a description of the need for the facility in the “state and/or region.” This requirement has evolved over the years from the requirement articulated in the 1991 Empire Power Company case in Docket No. SP-91, Sub 0 that an independent power producer (IPP) such as Oak Solar obtain a contract or a written commitment from a utility to demonstrate need. In 2001, the Commission initiated a generic proceeding in Docket No. E-100, Sub 85 to consider changes in the certification requirements for merchant plants. As impetus for its Order, the Commission cited the Energy Policy Act of 1992 which encouraged independent power production and competition in the wholesale power market through the creation of exempt wholesale generators and the ability of the Federal Energy Regulatory Commission (FERC) to issue wheeling orders requiring utilities to allow access to their transmission grids for wholesale power transactions. Order Initiating Further Proceedings, *Investigation of Certification Requirements for New Generating Capacity in North Carolina*, No. E-100, Sub 85, at 3 (N.C.U.C. Feb. 7, 2001 (the E-100, Sub 85 Order)).

In the E-100, Sub 85 Order, the Commission ordered the Public Staff to file a proposal for certification requirements for merchant plants. *Id.* In its proposal, the Public Staff recommended that the Commission address in its proceeding how the public convenience and necessity for an IPP would be demonstrated when the facility is intended to serve load outside of North Carolina.

In its Order adopting the certification rule on the issue of showing need, the Commission stated that “the Commission is not in a position to abandon any showing of need or to create a presumption of need [as had been urged by two commenting utilities]. However, the Commission believes that a flexible standard for the showing of need is appropriate.” Order Adopting Rule, *Investigation of Certification Requirements for New Generating Capacity in North Carolina*, No. E-100, Sub 85, at 7 (N.C.U.C. May 21, 2001). For example, in the implementation of the rule, the Commission has stated that it is mindful that issues regarding the appropriate amount of merchant plant generation in the State remain to be decided. Order Granting Certificate, *Application of Rowan Generating Company, LLC for a Certificate of Public Convenience and Necessity to Construct a Generating Facility in Rowan County, North Carolina*, No. EMP-3, Sub 0, at 8 (N.C.U.C. Oct. 12, 2001).

As the history of the rule described above makes clear, the statement of need requirement is a “flexible standard” consistent with the Commission’s intent to oversee merchant plant development to meet needs both within North Carolina and in the region. As the record of evidence demonstrates, Oak Solar will participate as a seller in the PJM market. The Applicant has presented to the Commission evidence that load growth for the PJM RTO as a whole, and more specifically for the Dominion Virginia power zone serving parts of eastern North Carolina and Virginia, is expected to increase over the next ten to fifteen years. Summer peak load is expected to grow by 0.4% per year over the next ten years, and by 0.4% over the next fifteen years. In the Dominion Virginia power zone, summer peak load growth is expected to grow by 0.8% per year over the next ten years, and 0.8% per year over the next fifteen years, representing a 2.6% growth over the equivalent forecasts from the January 2017 load forecast report. Winter peak load growth in PJM is expected to average 0.4% per year over the next ten-year period, and 0.4% over the next fifteen years. Winter peak load growth in the Dominion Virginia power zone is expected to grow by 0.9% per year over the next ten years, and 0.9% per year over the next nine to fifteen years, representing a 3.9% growth over the January 2017 load forecast report. Further, the area of North Carolina within the footprint of the transmission owned by Dominion Virginia Power has a slightly higher projected load growth than Virginia. North Carolina is expected to average between 0.8% and 0.9% load growth per year over the next ten years, in contrast to the PJM RTO load growth projections of 0.4% over the next ten years. Additionally, although not a traditional agreement for the purchase and sale of the Facility’s output, Oak Solar also has an executed contract with a large commercial and industrial customer located within PJM that is a different type of financial transaction involving the output of the Facility, and the Commission has also considered this agreement in weighing the totality of the evidence. Finally, it does not appear that the Facility will have any material impact on the long-range balance of demand for electricity and the generation resources available to meet the demand in North Carolina.

Further, consistent with N.C.G.S. § 62-110.1(e), the Commission has considered the construction costs associated with the construction of the Facility. Specifically, the statute provides that, “[a]s a condition for receiving a certificate, the applicant shall file an estimate of construction costs in such detail as the Commission may require...and no certificate shall be granted unless the Commission has approved the estimated construction costs and made a finding that construction will be consistent with the Commission’s plan for expansion of electric generating capacity.” N.C.G.S. § 62-110.1(e). The Commission has evaluated the construction costs for the Facility, including the cost of the generating plant, as well as the network upgrade costs on the Dominion system and elsewhere in PJM.

In her additional supplemental testimony filed on February 25, 2021, Applicant witness Nwadike states that the Interconnection Services Agreement (ISA) between the Applicant and PJM for PJM Queue AB1-132 (the Facility) forecasts necessary network upgrades and relay setting changes at Dominion’s Thelma and Lakeview substations to accommodate this generator. The estimated cost of this work is \$157,125. The System Impact Study, attached as Exhibit 1 to Witness Nwadike’s additional supplemental

testimony filed on February 25, 2021, identifies \$6,100,000 in interconnection costs necessitated by the AB1-132 interconnection request. The Public Staff does not dispute or raise any concerns regarding the costs of the Facility.

Applicant witness Nwadike also notes in her testimony that the ISA for PJM Queue AB1-132 for 120MW was filed with the FERC in May 2018, and that PJM did not require any affected system studies for this queue.

The Applicant provided a confidential calculation of the levelized cost of transmission (LCOT) for network upgrades in PJM with an anticipated total cost of \$157,125.00. The LCOT calculated by witness Nwadike is reasonable. Public Staff witness Lucas reviewed the Applicant's LCOT calculation and did not dispute it. Witness Lucas also states that the Oak Solar Facility will not require any affected system upgrades. He notes that interconnection of PJM cluster AA2 required Duke Energy Progress, LLC (DEP) to upgrade its portion of the Rocky Mount-Battleboro 115 kilovolt transmission line at an estimated cost of \$661,702.00. According to Witness Lucas, this upgrade eliminated any need for affected system upgrades for PJM cluster AB1.

The Public Staff recommends the Applicant's request for a CPCN be granted, subject to the following conditions:

- (1) The Applicant shall construct and operate the Facility in strict accordance with applicable laws and regulations, including any local zoning and environmental permitting requirements;
- (2) The CPCN shall be subject to Commission Rule R8-63(e) and all orders, rules and regulations as are now or may hereafter be lawfully made by the Commission;
- (3) The Applicant shall file with the Commission in this docket a progress report on the construction of the Facility on an annual basis; and
- (4) The Applicant shall file with the Commission in this docket any revisions in the cost estimates for the construction of the Facility or any network upgrades within 30 days of becoming aware of such revisions.

In its June 11, 2020, order in Docket No. EMP-105, Sub 0, denying the application by Friesian Holdings, LLC (Friesian) for a CPCN for a merchant generating facility, the Commission stated it is appropriate to use the LCOT as a benchmark as to the reasonableness of the transmission network upgrade costs associated with interconnecting a new generating facility. The LCOT allows for a comparison of the relative magnitude of transmission investments required to interconnect generation facilities. Based on the evidence of record, the Commission determines that the LCOT calculation put forth in the Applicant's confidential prefiled testimony of Witness Nwadike is not unreasonably out of line with the 2019 Lawrence Berkeley National Laboratory interconnection cost study (LBNL Study), on which the Commission has relied to place LCOT calculations in perspective with data from other balancing authorities. In view of

the total cost of the Facility, the Commission concludes that the siting of the Applicant's facility in this area is not inconsistent with the Commission's obligation under N.C. Gen. Stat. § 62-110.1(d) for the provision of "reliable, efficient and economical service" in the state.

For the foregoing reasons, the Commission finds and concludes that the Facility is in the public convenience and necessity as required by N.C.G.S. § 62-110.1 and that the Application should be granted.

However, although the record indicates that affected systems costs appear unlikely, there is enough uncertainty in the interconnection queue process that the Commission will require the Applicant to provide ongoing updated cost information for the Facility. To the extent the costs associated with any necessary system upgrades evolve, the Commission will consider this additional evidence and act accordingly.

Therefore, the CPCN will be subject to the conditions outlined below, to ensure that any significant increases in affected systems upgrade costs are considered by the Commission, consistent with its obligations under N.C.G.S. § 62-110.1 and regardless of whether the Applicant seeks reimbursement for the costs. However, in monitoring the costs of the Facility the Commission finds good cause for the Applicant to inform the Commission of any cost reimbursement it receives, including reimbursement from any utility or any other facility in the interconnection queue.

IT IS, THEREFORE, ORDERED as follows:

1. That a certificate of public convenience and necessity shall be, and is hereby, issued to Oak Solar, LLC for the construction of a 120-MW<sub>AC</sub> solar PV merchant generating facility to be located in Northampton County, North Carolina and to be operated as a merchant plant. This certificate is subject to the following conditions:

- (a) Oak Solar, LLC will construct and operate the Facility in strict accordance with applicable laws and regulations, including any local zoning and environmental permitting requirements;
- (b) Oak Solar, LLC will not assert that the issuance of the certificate in any way constitutes authority to exercise any power of eminent domain, and it will abstain from attempting to exercise such power;
- (c) Oak Solar, LLC will comply with all orders, rules, regulations, and conditions as are now or may hereafter be lawfully made by the Commission;
- (d) Oak Solar, LLC shall file with the Commission in this docket any revisions in the cost estimates for the interconnection facilities, network upgrades (including network upgrades on affected systems), or any other significant change in costs within 30 days of becoming aware of such revisions, allowing the Commission to weigh the costs with the generation needs in

the state or region consistent with its ruling in its Order Denying Application for a Certificate of Public Convenience and Necessity for a Merchant Generating Facility, *Application of Friesian Holdings, LLC, for a Certificate of Public Convenience and Necessity to Construct a 70-MW Solar Facility in Scotland County, North Carolina*, No. EMP-105, Sub 0 (N.C.U.C. June 11, 2020) (Friesian);

- (e) Oak Solar, LLC shall, if applicable, file a copy of an executed Affected System Operating Agreement (ASOA) with the Commission at the same time such filing is made at the Federal Energy Regulatory Commission (FERC) (at least 61 days prior to commencement of construction on the upgrades); and
- (f) If, at any time, Oak Solar, LLC seeks reimbursement for any interconnection facilities, network upgrade costs, affected system costs, or other costs required to allow energization and operation of the Facility, including reimbursement as a result of any change to the DEP OATT or any other governing documents, or reimbursement from another facility in the interconnection queue, it must notify the Commission no later than sixty (60) days before seeking reimbursement; and

2. That Appendix A hereto shall constitute the certificate of public convenience and necessity issued for the Facility.

ISSUED BY ORDER OF THE COMMISSION.

This the 19th day of November, 2021.

NORTH CAROLINA UTILITIES COMMISSION



Erica N. Green, Deputy Clerk

**STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH**

DOCKET NO. EMP-112, SUB 0

Oak Solar, LLC  
192 Raceway Dr.  
 Mooresville, NC 28117

is hereby issued this

**CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY  
PURSUANT TO N.C. GEN. STAT. §62-110.1**

For a 150-MW<sub>AC</sub> solar photovoltaic electric generating facility

located

at 207 Summit Trail, 922 Oak Grove Church Rd., 131 Oak Grove Church Rd., 1315 Oak Grove Church Rd., 172 Oak Grove Church Rd., 105 Crossvine Lane, 610 Cherry Tree Rd., in the town of Gaston, Northampton County, North Carolina,

subject to all orders, rules, regulations, and conditions  
as are now or may hereafter be lawfully made  
by the North Carolina Utilities Commission.

ISSUED BY ORDER OF THE COMMISSION.

This the 19th day of November, 2021.

NORTH CAROLINA UTILITIES COMMISSION



Erica N. Green, Deputy Clerk