

**STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH**

DOCKET NO. EMP-114, SUB 0

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of  
Application of Oak Trail Solar, LLC, for            )    ORDER ISSUING CERTIFICATE  
a Certificate of Public Convenience and        )    FOR MERCHANT GENERATING  
Necessity to Construct a 100-MW Solar        )    FACILITY  
Facility in Currituck County, North Carolina )

HEARD:       Monday, May 17, 2021, at 2:00 p.m., by virtual means using the Webex  
                  electronic platform

BEFORE:      Commissioner Kimberly W. Duffley, Presiding; Chair Charlotte A. Mitchell,  
                  and Commissioner Daniel G. Clodfelter

APPEARANCES:

For Oak Trail Solar, LLC:

E. Merrick Parrott, Parker Poe Adams & Bernstein LLP, PNC Plaza,  
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For the Using and Consuming Public:

Reita D. Coxton, Staff Attorney  
Public Staff-North Carolina Utilities Commission, 4326 Mail Service Center,  
Raleigh, North Carolina 27699-4300

BY THE COMMISSION: On September 17, 2020, Oak Trail 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 with a capacity of up to 100 MW<sub>AC</sub> to be located in Currituck County, North Carolina and to be operated as a merchant generating facility (the Facility). The proposed Facility will be built on approximately 880 acres in Currituck County south of S. Mills Road (NC 1227), on the east and west sides of Puddin Ridge Road, and on the north and south sides of Cooper Garrett Road, near Moyock. On the same date, the Applicant filed the testimony and exhibits of Matt Crook and

Wyatt Toolson. The Applicant also filed its registration as a New Renewable Energy Facility in accordance with Commission Rule R8-66.

## **PROCEDURAL HISTORY**

On September 29, 2020, the Public Staff filed a Notice of Completeness stating that it had reviewed the Application in accordance with Commission Rule R8-62(d) and considered the Application to be complete. The Public Staff also requested that the Commission issue a procedural order.

On December 14, 2020, the Commission issued an Order Requiring Filing of Testimony, Establishing Procedural Guidelines, and Requiring Public Notice (First Scheduling Order).

On December 16, 2020, the Commission issued an Errata Order correcting an error in the First Scheduling Order.

On December 18, 2020, the Commission issued an Order Scheduling Public Witness Hearing, Revising Deadlines Related to Public Witness Hearing and Revising Required Public Notice (Second Scheduling Order).

On January 19, 2021, the State Clearinghouse filed comments in the docket and indicated that no further State Clearinghouse review action was needed for compliance with the North Carolina Environmental Policy Act.

On January 25, 2021, 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 and as revised in the Second Scheduling Order.

On February 1, 2021, the Commission issued an Order Canceling Public Witness Hearing, canceling the hearing for the purpose of receiving public witness testimony scheduled for February 1, 2021.

On February 22, 2021, the Applicant filed the supplemental testimony of Matt Crook and supplemental addendums to its application.

On March 9, 2021, the Applicant filed a Notice of Pending Change in Ownership reporting a planned change in the upstream ownership of the Applicant.

On March 22, 2012, the Public Staff filed the testimony of Evan Lawrence.

On March 30, 2021, the Applicant filed a second Notice of Pending Change in Ownership reporting a second change in ownership and control of the Applicant.

On April 16, 2021, the Applicant filed a Notice of Change of Ownership with an amended Exhibit 1 to its application.

On April 16, 2021, the Applicant filed the direct testimony of Christopher Loehr and the supplemental direct testimony of Matt Crook.

On April 16, 2021, the Applicant filed amended versions of Exhibit 1 to its application and its prefiled direct testimony to provide information on Oak Trail's ownership.

On April 30, 2021, the Applicant filed the rebuttal testimony of Frank Bristol.

On May 5, 2021, the Applicant filed a supplemental exhibit to Witness Bristol's rebuttal testimony consisting of an email of the same date from Duke Energy stating that, "DEP Transmission Planning has confirmed these [Oak Trail queue positions] have no impact."

On May 14, 2021, the Public Staff filed some changes to Witness Lawrence's testimony and a summary of the testimony.

On May 17, 2021, the Commission held a remote hearing for the purpose of receiving expert witness testimony. The Applicant presented the testimony and exhibits of Witnesses Loehr, Crook, and Bristol. The Public Staff presented the testimony of Witness Lawrence.

On June 11, 2021, the Commission issued an Order Requiring Proposed Orders in the docket.

On July 14, 2021, the Applicant filed its proposed order.

On July 14, 2021, the Public Staff filed its proposed order. In the cover letter to the proposed order, the Public Staff called the Commission's attention to its recommendations in two other pending dockets pertaining to merchant plant facilities: EMP-102, Sub 1 and EMP-117, Sub 0. The Public Staff noted that it has recommended that the CPCN requests in both of those dockets be held in abeyance pending the outcome of a complaint proceeding that Edgecombe Solar, LLC initiated at the Federal Energy Regulatory Commission (FERC) challenging certain 2020 amendments that Duke Energy Progress (DEP) and other affiliated utilities made to their Affected System Operating Agreement templates. The Public Staff suggested that the Commission consider holding this docket in abeyance as well.

On September 1, 2021, the Applicant filed a Motion for Limited Construction Authority. The Applicant sought permission to begin limited construction activities, including the construction of perimeter fencing, erosion control measure, pile installation, wiring, equipment pads, racking, module installation, clearing and grading, switchyard/substation pad and access road installment, driveway and project road installment including culverts, stormwater management facilities, trenching and installation of cable, underground boring, installation of electrical poles, water well installation, and screening and landscaping improvements. The Applicant stated that it

understood that any construction undergone pursuant to this request would be undertaken without prejudice to any Commission action concerning the Application, and that the Applicant would assume all risks regarding the Commission's disposition of the application. The Applicant asserted that the requested relief was critical to completing construction of the Facility in accordance with timing requirements established pursuant to contractual obligations of the Applicant and its affiliates.

On September 20, 2021, the Commission issued an Order Granting Motion for Limited Construction Authority.

## **DISCUSSION AND CONCLUSIONS**

After careful consideration of the facts and circumstances of this case, the Commission finds no cause to stay this proceeding. The Commission finds good cause to approve the application and issue the requested CPCN for the Facility, subject to certain conditions.

Rule R8-63(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 SP-91, Sub 0 that an independent power producer (IPP) such as Oak Trail obtain a contract or a written commitment from a utility to demonstrate need. In 2001, the Commission initiated a generic proceeding in Docket 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). Further, the Commission cited FERC Order 2000 as "encouraging the formation of regional transmission organizations which would operate interconnected transmission systems, reduce the cost of transmitting power to more distant markets, and further enhance wholesale competition." *Id.*

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, the Commission stated "[i]t is the Commission's intent to facilitate, and not to frustrate, merchant plant development. Given the present statutory framework, 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 Trail will participate as a seller in the PJM market. The Applicant has presented to the Commission evidence that the projected load growth in the PJM service area in Dominion Energy territory, including North Carolina, is expected to average between 1.2% and 1.4% per year over the next 10 years and that the Facility can contribute to meeting increases in peak load growth forecasted for PJM. Additionally, although not a traditional agreement for the purchase and sale of the Facility’s output, Oak Trail 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 the plain language of 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 PJM system and on the Dominion system.

In his supplemental testimony filed on February 22, 2021, witness Crook states that the Facility has received the following interconnection studies: (1) System Impact Study for PJM queue position AD2-160; (2) System Impact Study for PJM queue position AE2-253; and (3) Facility Study Report for PJM queue positions AD2-160 and AE2-253. Witness Crook states that there are no network upgrades to affected systems’ transmission systems. After filing the application, the Applicant received the Facility Study Report for PJM queue positions AD2-160 and AE2-253 which details network upgrades required on DENC’s transmission system. The projected LCOT for the Facility is \$1.94/MWh. Witness Crook asserts that this LCOT compares favorably to the average

LCOTs identified in the 2019 Lawrence Berkeley National Laboratory Interconnection Cost Study (LBNL Study) for solar in MISO, PJM, and EIA that the Public Staff referenced, and the Commission cited in its Order Denying Certificate of Public Convenience and Necessity for 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) (the EMP-105, Sub 0 Order). In his supplemental testimony, witness Crook also states that the entire cost of the network upgrades will be borne by the Project and not reimbursed.

Public Staff Witness Evan Lawrence, in his testimony filed March 22, 2021, did not dispute the Applicant's LCOT calculation but asserts that, because of the tentative nature of the various projects in the queue, costs may be shifted from one interconnection cluster to another. Witness Lawrence notes that Duke Energy Progress, LLC (DEP), recently completed an affected system study for the AC1 PJM interconnection cluster. The Facility is part of PJM's AD2 and AE2 interconnection clusters. According to Witness Lawrence, if any network upgrades for four to six other clusters (AB2, AC1, AC2, AD1, AD2, and AE1) are necessary or need alteration, they may need to be completed before the Facility can begin full operation. Witness Lawrence further asserts that if generator projects from these previous clusters do not come to fruition, the planned upgrades could be pushed to later clusters, and if projects from the previous clusters do come to fruition, additional upgrades may be needed for AD2 and AE2 that cannot be studied until there is more certainty regarding the size and placement of the interconnected generators.

Witness Lawrence further notes that, in previous cases that required affected system upgrades on the DEP transmission system, the contract between DEP and the generator allowed the generator to recover the costs paid to DEP. Effective October 1, 2020, Section 6.1 of the DEP, DEC, and Duke Energy Florida Affected System Operating Agreement Template states that, "[t]he Affected System Network Upgrades shall be solely funded by Customer." The Public Staff supports this change and believes that if in the future costs for affected system network upgrades are not completely borne by the Applicant, the Commission should reopen this proceeding to reevaluate the costs. Witness Lawrence asserts that costs incurred by the Applicant for network upgrades to any transmission system under PJM control should not qualify for repayment and should be borne solely by interconnection customers.

Subject to its understanding that DEP's and DENC's current interconnection procedures applicable to merchant generation do not provide for reimbursement for interconnection facilities or network upgrade costs, affected system costs, or other costs required to allow energization and operation of the Facility, the Public Staff recommends that the Commission issue the CPCN subject to the following conditions:

- i. The Applicant 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 commencing construction on the upgrades);

- ii. The Applicant shall file a verified statement acknowledging that, under DEP's currently effective Affected Systems Business Procedure and PJM's Open Access Transmission Tariff (OATT), the Interconnection Customer is responsible for all affected system network upgrade costs assigned to the Applicant's Facility, if any, without reimbursement;
- iii. The Applicant shall notify the Commission of any change in the cost estimates for the construction of the Facility itself, interconnection facilities, network upgrades, or affected system costs within 30 days of becoming aware of such change; and
- iv. If, at any time, the Applicant 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 as a result of any change to the DEP OATT or any other governing document(s)), the Commission 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* requested by Friesian Holdings, LLC, in Docket No. EMP-105, Sub 0 (the Friesian case).

In prefiled rebuttal testimony, Applicant witness Frank Bristol disagreed with the testimony of Public Staff Witness Lawrence. Witness Bristol states that the System Impact and Facilities Studies for AD2-160 and AE2-253 identified no network upgrades other than those related to building and integrating a new Point of Interconnection (POI) substation and no affected system upgrades on the DEP System. Further, witness Bristol states that the Applicant is a party to a fully executed Interconnection Service Agreement (ISA) among PJM, Applicant and Dominion Energy dated March 3, 2021. Under the ISA, the Applicant is responsible for \$10,002,252 in interconnection costs comprised of attachment facilities, direct connection network upgrades, and non-direct connection network upgrades. Witness Bristol asserts that all the charges are related to building and integrating the POI substation and will be borne by the Applicant, not by ratepayers. Witness Bristol states that the interconnection costs for the Facility as outlined in the ISA are final. If the planned upgrades assigned to earlier queued generators in the PJM queue were considered contingent to Applicant's Facility, they would have been identified as a contingent upgrade of the ISA. There were no contingent upgrades related to earlier queued projects identified in the ISA. According to the ISA, the Applicant is responsible for the interconnection costs and, according to PJM's OATT, the PJM interconnection costs identified in the Applicant's ISA are not eligible for reimbursement. Witness Bristol states that the costs identified in the ISA are final and that the LCOT will not change for the Facility.

Regarding affected system costs, witness Bristol asserts that there are no affected systems impacts on the DEP system assigned to the Facility. DEP has published Affected System Study Reports for PJM clusters AB2, AC1, AD1, and AD2. The Applicant is part of PJM's AD2 and AE2 interconnection clusters. Therefore, if the Applicant's AD2 queue

position caused any affected systems impact on DEP's system, DEP's AD2 DEP Affected System Study Report would identify the Applicant in that report. According to witness Bristol, the Applicant's queue position, AD2-160, was not included in the study, which confirms that it does not have an impact on the DEP system. Although DEP has not published an Affected System Study report for the AE2 PJM cluster, witness Bristol states that PJM's System Impact Studies indicate that there are no affected system upgrades assigned to the Applicant and the Applicant's ISA has no affected system upgrades.

The Commission finds the testimony of Applicant witness Bristol persuasive that there are not currently affected system impacts on the DEP system assigned to this Facility. In the EMP-105, Sub 0 Order denying the application of 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. EMP-105, Sub 0 Order at 6. 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 prefiled confidential testimony of witness Crook is not unreasonably out of line with the 2019 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.G.S. § 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. Public Staff witness Lawrence outlined several examples of situations that could potentially lead to increased costs for the Facility and reasons why the Public Staff is not convinced that the costs for the Facility are final. See Tr., 77, 88, 91-93, 96, 106-107, 112, 124-125, 130. To the extent the costs associated with any necessary system upgrades evolves, 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 beyond those projected in the application 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.



The Commission accepts the registration of the Facility as a New Renewable Energy Facility pursuant to N.C.G.S. § 62-133.8 and Commission Rule R8-66. The Applicant will be required to annually file the information required by Commission Rule R8-66 on or before April 1 of each year and to participate in the NC-RETS REC tracking system (to the extent it is not already doing so) to facilitate the issuance of RECs.

IT IS, THEREFORE, ORDERED as follows:

1. That a certificate of public convenience and necessity shall be, and is hereby, issued to Oak Trail Solar LLC for the construction of a 100 MW<sub>AC</sub> solar PV merchant generating facility to be located in Currituck County, North Carolina and to be operated as a merchant plant. This certificate is subject to the following conditions:

- (a) Oak Trail 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 Trail 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 Trail 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 Trail 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 Trail 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 commencing construction on the upgrades); and
- (f) If, at any time, Oak Trail 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.

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

3. The Commission accepts the registration of the Facility as a New Renewable Energy Facility pursuant to N.C.G.S. § 62-133.8 and Commission Rule R8-66. The Applicant must annually file the information required by Commission Rule R8-66 on or before April 1 of each year. The Applicant must participate in the NC-RETS REC tracking system to facilitate the issuance of RECs.

ISSUED BY ORDER OF THE COMMISSION.

This the 8th day of October, 2021.

NORTH CAROLINA UTILITIES COMMISSION

A handwritten signature in cursive script, appearing to read "Joann R. Snyder".

Joann R. Snyder, Deputy Clerk