



**NORTH CAROLINA  
PUBLIC STAFF  
UTILITIES COMMISSION**

March 22, 2021

Ms. Kimberley A. Campbell, Chief Clerk  
North Carolina Utilities Commission  
4325 Mail Service Center  
Raleigh, North Carolina 27699-4300

Re: Docket No. EMP-114, Sub 0 - Oak Trail Solar, LLC  
CPCN and Registration Statement for 100MW Solar Located South  
of S. Mills Road, on the east/west sides of Puddin Ridge Road, and  
on the north/south sides of Cooper Garrett Road, near Moyock, NC

Dear Ms. Campbell:

In connection with the above-referenced docket, I transmit herewith for filing on behalf of the Public Staff the confidential testimony of Evan D. Lawrence, Utilities Engineer, Electric Division;

By copy of this letter, I am forwarding a copy of the public version to all parties of record by electronic delivery. The confidential version will be provided to those parties that have entered into a confidentiality agreement.

Sincerely,

Electronically submitted  
s/ Reita D. Coxton  
Staff Attorney  
[reita.coxton@psncuc.nc.gov](mailto:reita.coxton@psncuc.nc.gov)

RDC/cla

Attachment

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BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. EMP-114, SUB 0

In the Matter of	)	
Application of Oak Trail Solar, LLC, for	)	TESTIMONY OF
a Certificate of Public Convenience and	)	EVAN D. LAWRENCE
Necessity to Construct an 100-MW	)	PUBLIC STAFF – NORTH
Solar Facility in Currituck County, North	)	CAROLINA UTILITIES
Carolina	)	COMMISSION

**BEFORE THE NORTH CAROLINA UTILITIES COMMISSION**

**DOCKET NO. EMP-114, SUB 0**

**Testimony of Evan D. Lawrence**

**On Behalf of the Public Staff**

**North Carolina Utilities Commission**

**March 22, 2021**

1 **Q. PLEASE STATE YOUR NAME AND ADDRESS FOR THE**  
2 **RECORD.**

3 A. My name is Evan D. Lawrence. My business address is 430 North  
4 Salisbury Street, Raleigh, North Carolina.

5 **Q. BRIEFLY STATE YOUR QUALIFICATIONS AND DUTIES.**

6 A. My qualifications and duties are included in Appendix A.

7 **Q. PLEASE STATE YOUR POSITION WITH THE PUBLIC STAFF.**

8 A. I am an engineer in the Electric Section – Operations and Planning  
9 in the Public Staff’s Energy Division.

10 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**  
11 **PROCEEDING?**

12 A. The purpose of my testimony is to make recommendations to the  
13 Commission on the application, testimony, and related filings  
14 regarding a solar photovoltaic facility in Currituck County, North  
15 Carolina, that I describe in detail below.

1 **Q. PLEASE PROVIDE A BRIEF HISTORY OF THE APPLICATION.**

2 A. On September 17, 2020, Oak Trail Solar, LLC (Oak Trail or  
3 Applicant) filed an application for a certificate of public convenience  
4 and necessity (CPCN) to construct a 100-megawatt AC (MW<sub>AC</sub>) solar  
5 photovoltaic electric generating facility (Facility). The application  
6 included the testimony of Matt Crook and Wyatt Toolson.  
7 Contemporaneously with the application, the Applicant filed a  
8 Registration Statement for the Registration of a New Renewable  
9 Energy Facility (Registration).

10 On September 29, 2020, the Public Staff filed a Notice of  
11 Completeness, stating that it believed the Applicant had satisfied the  
12 filing requirements, and requesting that the Commission consider the  
13 application to be complete and issue a procedural order setting it for  
14 hearing, requiring public notice, and addressing any other procedural  
15 matters.

16 On December 14, 2020, the Commission issued its *Order*  
17 *Scheduling Hearings, Requiring Filing of Testimony, Establishing*  
18 *Procedural Guidelines, and Requiring Public Notice* (December 14  
19 Order). The December 14 Order required the Applicant to file  
20 supplemental testimony to answer questions raised by the  
21 Commission.

1 On December 16, 2020, the Commission issued its *Errata Order* to  
2 its December 14 Order amending the time of the expert witness  
3 hearing.

4 On December 18, 2020, the Commission issued its *Order*  
5 *Rescheduling Public Witness Hearing, Revising Deadlines Related*  
6 *to Public Witness Hearing, and Revising Required Public Notice*  
7 (December 18 Order).

8 On January 19, 2021, the State Clearinghouse filed comments. The  
9 cover letter indicated that because of the nature of the comments, no  
10 further action was required for compliance with the North Carolina  
11 Environmental Policy Act.

12 On January 25, 2021, the Applicant filed its Affidavit of Publication  
13 from the Daily Advance (Elizabeth City, North Carolina) stating that  
14 the publication of notice was complete on January 21, 2021.

15 On February 1, 2021, the Commission issued its *Order Canceling*  
16 *Public Witness Hearing*.

17 On February 22, 2021 the Applicant filed the Pre-filed Supplemental  
18 Testimony of Matt Crook, addressing the questions raised in the  
19 December 14 Order.

1 I. COMPLIANCE WITH THE DECEMBER 14 ORDER

2 Q. PLEASE DESCRIBE THE QUESTIONS IN THE DECEMBER 14  
3 ORDER.

4 A. In the December 14 Order, the Commission noted the increase in  
5 non-utility generation on the North Carolina system and recognized  
6 its statutory duty to examine the long-range needs for the generation  
7 of electricity in North Carolina. The Commission directed the  
8 Applicant to file additional testimony and exhibits addressing the  
9 following questions about the Facility:

- 10 1. Provide the amount of network upgrades on  
11 DENC's or any affected system's transmission  
12 system, if any, required to accommodate the  
13 operation of the Applicant's proposed facility.
- 14 2. Provide the Levelized Cost of Transmission  
15 (LCOT) information for any required  
16 transmission system upgrades or modifications.
- 17 3. Provide any interconnection study received for  
18 the proposed facility. If the Applicant has not  
19 received a study, provide a date by when the  
20 study is expected to be completed.
- 21 4. Are you aware of any system other than the  
22 studied system that is or will be affected by the  
23 interconnection? If yes, explain the impact and  
24 basis.
- 25 5. If the Applicant proposes to sell energy and  
26 capacity from the facility to a distribution utility  
27 regulated by the Commission, provide a  
28 discussion of how the facility's output conforms  
29 to or varies from the regulated utility's most  
30 recent Integrated Resource Plan (IRP).
- 31 6. If the Applicant proposes to sell energy and  
32 capacity from the facility to a distribution utility  
33 not regulated by the Commission but serving  
34 retail customers in North Carolina (e.g., a co-op  
35 or muni), discuss how the facility's output

- 1 conforms to or varies from the purchasing  
2 distribution utility's long-range resource plan.
- 3 7. If the Applicant proposes to sell energy and  
4 capacity from the facility to a purchaser who is  
5 subject to a statutory or regulatory mandate with  
6 respect to its energy sourcing (e.g., a REPS  
7 requirement or Virginia's new statutory mandate  
8 for renewables), explain how, if at all, the facility  
9 will assist or enable compliance with that  
10 mandate. Provide any contracts that support  
11 that compliance.
- 12 8. Provide any Power Purchase Agreements,  
13 Renewable Energy Credit (REC) sale contracts,  
14 or contracts for compensation for environmental  
15 attributes for the output of the facility.

16 **Q. DID THE APPLICANT PROVIDE LCOT CALCULATIONS FOR**  
17 **NETWORK UPGRADES?**

18 A. Yes. Confidential Supplemental Application Addendum 1 of Matt  
19 Crook's Prefiled Supplemental Testimony included LCOT  
20 calculations for the Facility. The LCOT for the Facility is \$1.94/MWh,  
21 with anticipated network upgrade costs of **[BEGIN CONFIDENTIAL]**  
22 **[REDACTED]** **[END CONFIDENTIAL]**.

23 **Q. DID THE APPLICANT PROVIDE ANY AFFECTED SYSTEM**  
24 **STUDIES OR COSTS RELATED TO THE FACILITY?**

25 A. No. The Applicant is not aware of any impacts to affected systems at  
26 this time. The completed interconnection studies also do not reflect  
27 the need for affected system studies or upgrades. However, Duke  
28 Energy Progress, LLC (DEP), has recently completed an affected  
29 system study for the AC1 PJM interconnection cluster. The Facility  
30 is part of PJM's AD2 and AE2 interconnection clusters. If any network

1 upgrades for four to six other clusters (AB2, AC1, AC2, AD1, AD2,  
2 and AE1) are necessary or need alteration, they may need to be  
3 completed before the Facility can begin full operation. If generator  
4 projects from these previous clusters do not come to fruition, the  
5 planned upgrades could be pushed to later clusters. If projects from  
6 these previous clusters do come to fruition, additional upgrades may  
7 be needed for AD2 and AE2 that cannot be studied until there is more  
8 certainty regarding the size and placement of the interconnected  
9 generators.

10 **Q. DO YOU HAVE ANY CONCERNS RELATED TO THE USE OF THE**  
11 **LCOT?**

12 A. Yes. The Public Staff does not disagree with the LCOT calculation,  
13 but, because of the tentative nature of projects in the queue, costs  
14 can be shifted from one cluster to another. The Public Staff has  
15 highlighted this concern in previous testimony for multiple other  
16 applications for CPCNs by merchant generating facilities.

17 **Q. IS THE POTENTIAL FOR SYSTEM UPGRADE COST RECOVERY**  
18 **DIFFERENT FOR THIS FACILITY THAN FOR OTHER FACILITIES**  
19 **IN PJM'S NORTH CAROLINA TERRITORY?**

20 A. Yes. In previous cases that required affected system upgrades on  
21 the DEP transmission system, the contract between DEP and the  
22 generator allowed the generator to recover the costs paid to DEP. In



1 Docket No. E-100, Sub 170 (Sub 170 Proceeding), DEP and Duke  
2 Energy Carolinas, LLC (DEC), filed comments on October 7, 2020  
3 regarding their affected system study process and cost allocation. In  
4 this filing, DEC and DEP noted that, effective October 1, 2020,  
5 Section 6.1 of the DEP, DEC, and Duke Energy Florida “Affected  
6 System Operating Agreement Template” states that, “[t]he Affected  
7 System Network Upgrades shall be solely funded by Customer.” The  
8 Public Staff agrees with this change. Further, the Public Staff  
9 believes that if at any point in the future, costs for affected system  
10 network upgrades are not completely borne by the Applicant, the  
11 Commission should reopen this proceeding for granting of a CPCN  
12 in order to reevaluate the costs. Costs incurred by the Applicant for  
13 network upgrades to any transmission system under PJM control  
14 should not qualify for repayment, and should be borne solely by  
15 interconnection customers.

16 In short, if there are no cost impacts to the customers of electric  
17 public utilities, the Public Staff takes no issue with the application.

18 **Q. WHAT IS THE STATUS OF THE SUB 170 PROCEEDING?**

19 A. The Commission opened the Sub 170 Proceeding at the request of  
20 the Public Staff. The intent of this proceeding is to solicit comments  
21 or proposals to consider the appropriate changes or modifications to  
22 the affected system process to provide better cost certainty and align

1 the assignment or recovery of costs with cost causation principles.  
2 DEC, DEP, and Dominion Energy North Carolina (DENC) filed  
3 comments and provided information on their Open Access  
4 Transmission Tariffs (OATT). Each of the following parties filed reply  
5 comments: Geenex Solar, LLC; the Public Staff; The North Carolina  
6 Clean Energy Business Alliance and the North Carolina Sustainable  
7 Energy Association; DEC; and DEP. The deadline for filing  
8 comments and reply comments has passed.

9 **Q. WHAT IS THE PUBLIC STAFF'S RECOMMENDATION ON OAK**  
10 **TRAIL'S APPLICATION FOR A CPCN AND ASSOCIATED**  
11 **REGISTRATION?**

12 A. The Public Staff has reviewed the application, the Registration, the  
13 direct and supplemental testimony of Matt Crook, the direct  
14 testimony of Wyatt Toolson, and other evidence in the record and  
15 obtained through discovery. The Public Staff has also reviewed the  
16 comments and reply comments in the Sub 170 Proceeding. Based  
17 on this information, and subject to the Public Staff's understanding  
18 that DEP's and DENC's current interconnection procedures  
19 applicable to merchant generation do not provide for reimbursement  
20 for interconnection facilities or network upgrade costs, affected  
21 system costs, or other costs required to allow energization and  
22 operation of the Facility, the Public Staff recommends that the  
23 Commission issue the CPCN, subject to the following conditions:

- 1           i.     The Applicant shall file a copy of an executed Affected  
2           System Operating Agreement (ASOA) with the  
3           Commission at the same time such filing is made at  
4           Federal Energy Regulatory Commission (FERC) (at least  
5           61 days prior to commencing construction on the  
6           upgrades);
- 7           ii.    The Applicant shall file a verified statement acknowledging  
8           that, under Duke's Affected Systems Business Procedure  
9           and PJM's OATT, the Interconnection Customer is  
10          responsible for all affected system Network Upgrade  
11          Costs assigned to the Applicant's facility, if any, without  
12          reimbursement;
- 13          iii.   The Applicant shall notify the Commission of any change  
14          in the cost estimates for the construction of the Facility  
15          itself, interconnection facilities, network upgrades, or  
16          affected system costs within 30 days of becoming aware  
17          of such change; and
- 18          iv.    If, at any time, the Applicant seeks reimbursement for any  
19          interconnection facilities, network upgrade costs, affected  
20          system costs, or other costs required to allow energization  
21          and operation of the Facility (including as a result of any  
22          change to the DEP OATT or any other governing  
23          document(s)), the Commission weigh the costs to be

1                   borne by DEP's retail and wholesale customers with the  
2                   generation needs in the state or region consistent with its  
3                   ruling in its Order Denying Application for a Certificate of  
4                   Public Convenience and Necessity for a Merchant  
5                   Generating Facility requested by Friesian Holdings, LLC,  
6                   in Docket No. EMP-105, Sub 0.

7   **Q.     DOES THIS CONCLUDE YOUR TESTIMONY?**

8   A.     Yes, it does.

**QUALIFICATIONS AND EXPERIENCE**

EVAN D. LAWRENCE

I graduated from East Carolina University in Greenville, North Carolina in May 2016 earning a Bachelor of Science degree in Engineering with a concentration in Electrical Engineering. I started my current position with the Public Staff in September 2016. Since that time my duties and responsibilities have focused on reviewing renewable energy projects, rate design, and renewable energy portfolio standards (REPS) compliance. I have filed affidavits in Dominion Energy North Carolina's 2017 and 2018 REPS cost recovery proceeding, testimony in DEP's 2019 REPS cost recovery proceeding, an affidavit in DEC's 2019 REPS cost recovery proceeding, testimony in New River Light and Power's most recent rate case proceeding, Western Carolina University's most recent rate case proceeding, and testimony in multiple dockets for requests for CPCNs. Additionally, I am currently serving as a co-chair of the National Association of State Utility and Consumer Advocates (NASUCA) DER and EE committee.