



**NORTH CAROLINA
PUBLIC STAFF
UTILITIES COMMISSION**

January 28, 2019

M. Lynn Jarvis, Chief Clerk
North Carolina Utilities Commission
Mail Service Center 4325
Raleigh, North Carolina 27699-4300

Re: Docket No. EMP-104, Sub 0 – Notice of Completeness

Dear Ms. Jarvis:

In connection with the above-referenced docket, I transmit herewith for filing on behalf of the Public Staff the Affidavit of Evan D. Lawrence.

By copy of this letter, we are serving all parties of record.

Sincerely,

/s/ Layla Cummings
Staff Attorney
layla.cummings@psncuc.nc.gov

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STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. EMP-104, Sub 0

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

| | | |
|---|---|-------------------------|
| In the Matter of |) | |
| Application for a Certificate of Public |) | |
| Convenience and Necessity for Fern Solar, |) | <u>AFFIDAVIT</u> |
| LLC |) | <u>OF</u> |
| |) | <u>EVAN D. LAWRENCE</u> |

STATE OF NORTH CAROLINA

COUNTY OF WAKE

I, Evan D. Lawrence, first being duly sworn, do depose and say:

I am an engineer in the Electric Division of the Public Staff – North Carolina Utilities Commission, representing the using and consuming public. My business address is 430 North Salisbury Street, Raleigh, North Carolina. A summary of my education and experience is attached to this affidavit as Appendix A.

The purpose of my affidavit is to make recommendations to the Commission on a requested Certificate of Public Convenience and Necessity by Fern Solar, LLC (Applicant) to construct a 100-megawatt AC (MW_{AC}) solar photovoltaic (PV) merchant electric generating facility in Edgecombe County, North Carolina to be known as Fern Solar (the Facility). The purpose of my affidavit is to present general comments regarding Fern Solar and the Applicant; to discuss the compliance of the application with N.C. Gen. Stat. § 62-110.1, and Commission Rule R8-63, and

to make a recommendation regarding whether the Commission should issue the requested certificate.

General Comments

On November 27, 2018, the Applicant filed for a Certificate of Public Convenience and Necessity to Construct a Merchant Plant (CPCN) in Docket EMP-104, Sub 0. The Facility is to be a 100-MW_{AC} solar PV plant located in Edgecombe County, North Carolina, on approximately 1,235 acres of land. The Applicant states it will be located on non-contiguous parcels of land generally between Battleboro-Leggett Road, Cool Springs Road, and Speights Chapel Road, approximately 3.2 miles northeast of Rocky Mount, and 6.7 miles northwest of Tarboro, North Carolina. The Facility will include 41 2.75-MW inverters and approximately 415,000 PV modules on single axis tracking ground mounted racks supported on driven piles, with the exact number of modules dependent on the wattage of each. Forty-one step-up transformers will be used to increase voltage from 600 V to 34.5 kV before being fed into one step-up transformer that will increase the voltage to 115 kV for interconnection with Dominion Energy North Carolina (DENC). The Applicant will self-curtail any excess generation as to not exceed the proposed 100 MW_{AC}. The yearly net generation is anticipated to be approximately 250,000 MWh. Because solar is an intermittent energy source, the maximum dependable capacity of the plant is 0 MW. The expected life of the plant is anticipated to be at least 30 years.

A switching station will be constructed for interconnection to an existing 115 kV transmission line, and will be owned and operated by DENC. Both substations must be fenced and locked according to industry standards to provide safety and security. Land rights will be assigned to DENC as necessary as required by the interconnection agreement.

The Applicant is working with the United States Fish and Wildlife Service (USFWS) and the Army Corps of Engineers (COE) regarding environmentally sensitive areas either within or near the project boundary. A wetlands permit from COE may be needed, but that has yet to be determined. The Applicant submitted a glare study to the Federal Aviation Administration (FAA) that concluded that the Facility will not have any effect on any airport in a five mile radius. The State Clearinghouse expects to file their comments on or before February 14, 2019. The Applicant anticipates that it will need the following state permits: (1) an erosion and sedimentation and control plan and storm water general permit coverage for construction related activities; and (2) a N.C. Department of Transportation driveway permit. The permits required by Edgecombe County include: (1) a special use permit; (2) a storm water permit (3) a building permit; and (4) an electrical permit. The required special use permit from Edgecombe County is described in some detail in the prefiled direct testimony of Kara Price. The system impact study required by DENC has been completed and the Applicant has expressed no concerns regarding the results.

Due to the nature of the ownership of the Facility, there will be no rate impact to DENC ratepayers. The project will be financed by private financiers, who will

bear any risk of default. The Public Staff has reviewed the financial viability of the Applicant and believes it to be sufficient for the proposed project. The financial capabilities are discussed in detail in the prefiled direct testimony of Benjamin Lindermeier. In addition, the Applicant states that it may apply for Market-Based Rate Authorization from the Federal Energy Regulatory Commission (FERC), and also may seek to self-certify as an Exempt Wholesale Generator.

Compliance of the Application with N.C. Gen. Stat. § 62-110.1,

Commission Rule R8-63, and Commission Rule R8-66

On November 27, 2018 the Applicant filed its application for a CPCN, along with prefiled direct testimony. With the filing of these documents, the application is complete. The Public Staff filed with the Commission its Notice of Completeness on December 7, 2018, and requested that the Commission issue a procedural order setting the matter for hearing. On December 20, 2018, the Commission issued an order requiring public notice, scheduling public and evidentiary hearings, and dealing with other necessary procedural matters.

The Applicant discussed the need for this facility, citing a 2018 PJM Interconnection (PJM) load forecast. The Applicant stated that load growth for PJM, a Regional Transmission Organization (RTO) in which Dominion participates, and DENC, is expected to increase over the next ten to fifteen years for both summer and winter months. The increase in energy sales will result in an increased number of RECs required. The Facility is expected to generate approximately 250,000 RECs annually.

The Applicant asserts that the PJM Load Forecast Report shows an expected summer and winter growth of 0.4% per year over the next ten years. PJM projects the Dominion Zone to experience summer peak load growth of 0.8% per year over the next ten years, while winter peak load is expected to grow by 0.9% per year over the same time period. DENC projects peak load growth to average between 0.8% and 0.9% per year over the next ten years. The Applicant also states that it expects to sell the RECs generated from the facility through PJM, and that it has potential off takers for the facility's output.

Recommendations

The Public Staff concludes that Fern Solar has satisfied the requirements to obtain a CPCN pursuant to N.C. Gen. Stat. § 62-110.1 and Commission Rule R8-63. The Applicant has shown that there is a need for the Facility, citing PJM's 2018 Load Growth Forecast Report as well as a future need for energy for DENC. Therefore, the Public Staff recommends that the Commission issue a CPCN to Fern Solar, LLC, with the following conditions:

- a. That Fern Solar, LLC construct and operate the Facility in strict accordance with all applicable laws and regulations;
- b. That Fern Solar, LLC shall not begin construction until the State Clearinghouse files comments indicating that no further review action by the Commission is required for compliance with the North Carolina Environmental Policy Act; and

c. That Fern Solar, LLC file with the Commission in this docket a progress report and any revisions in the cost estimates for the Facility on an annual basis, including any storage systems to be constructed at a later date, with the first report due no later than six months from the date of issuance of the CPCN.


This completes my affidavit.



Evan D. Lawrence

Sworn to and subscribed before me
on this the 28th day of January, 2019.

Joanne M. Berube
NOTARY PUBLIC
WAKE COUNTY, N.C.
My Commission Expires 12-17-2022.



Notary Public
JOANNE M. BERUBE

My Commission Expires: 12/17/2022

Evan D. Lawrence

I graduated from East Carolina University in Greenville, North Carolina in May of 2016 earning a Bachelor of Science degree in Engineering and a concentration in Electrical Engineering. I started my current position with the Public Staff in September of 2016. Since that time my duties and responsibilities have focused on the review of renewable energy projects, interconnection standards, rate design, and renewable energy portfolio standards compliance. I have filed an affidavit in the DENC 2017 REPS case, testimony in New River Light and Power's (NRLP) most recent general rate case, and testimony in the Application for CPCN filed by Wilkinson Solar, LLC in docket EMP-93, Sub 0. I have also assisted with Duke Energy Carolinas' (DEC) and Duke Energy Progress's (DEP) REPS cases, as well as multiple other cases.