

DOCKET NO. EMP-101, Sub 0

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of)	
Application for a Certificate of Public)	
Convenience and Necessity and an)	<u>AFFIDAVIT</u>
Application to Register As A New)	<u>OF</u>
Renewable Energy Facility for Edgecombe)	<u>EVAN D. LAWRENCE</u>
Solar, LLC)	

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 Edgecombe Solar, LLC (Applicant) to construct a 75-megawatt AC (MW_{AC}) solar photovoltaic (PV) merchant electric generating facility in Edgecombe County, North Carolina to be known as Edgecombe Solar (the Facility). The purpose of my affidavit is to present general comments regarding Edgecombe Solar and the Applicant; to discuss the compliance of the application with N.C. Gen. Stat. § 62-110.1, Commission Rule R8-63, and Commission Rule R8-66, and to make a

recommendation regarding whether the Commission should issue the requested certificate and accept the registration.

General Comments

On October 5, 2018, the Applicant filed for a Certificate of Public Convenience and Necessity to Construct a Merchant Plant (CPCN) and Registration as a New Renewable Energy Facility in Docket EMP-101, Sub 0. The Facility is to be a 75-MW_{AC} solar PV plant located in Edgecombe County, North Carolina, on approximately 660 acres of land. It will be located on the north side of US Highway 64 Alternate, east of the intersection with April Lane, and west of the intersection with Alston Lane, near Kingsboro. The Facility will include 24 3.36-MW inverters and 266,211 PV modules on ground mounted racks supported on driven piles, each module having a generating capacity of 375 watts. The Applicant will self-curtail any excess generation as to not exceed the proposed 75 MW_{AC}. The yearly generation is anticipated to be 218,332 MWh gross and 179,979 MWh net. The difference between the net and gross results from inefficiencies and losses from inverters, lines, auxiliary loads, and plant availability. 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.

Two substations will be constructed on the site. One will be a collection substation constructed and operated by the Applicant, and the other will be a three-ring breaker interconnection substation owned and operated by Dominion Energy North Carolina (DENC). Both substations will be fenced and locked according to

industry standards to provide safety and security. The collection substation will consist of circuit breakers, switching devices and auxiliary equipment. The interconnection substation will require a short generator tie line to connect with the transmission system. There is an existing 115-kV transmission line located at the proposed point of interconnection. Land rights will be assigned to DENC as necessary as required by the interconnection agreement.

The Facility presents limited environmental risk because, as a solar PV system, it consumes no fuels, has no emissions, and requires no disposal of generation byproducts. The site of the Facility was previously used for agricultural purposes. The State Clearinghouse filed initial comments on December 18, 2018, and determined that there was no further review required at this time. On December 28, 2018, the State Clearinghouse filed additional comments requesting that the Applicant file additional information. The Department of Cultural Resources has requested that a comprehensive archaeological survey of the project area be conducted by an experienced archeologist.

The Applicant has worked 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. The Applicant does not anticipate that any additional USFWS studies will be required. A wetlands permit from COE may be needed, but that has yet to be determined. The Applicant anticipates that it will need the following state permits: (1) a storm water management permit from the Department of Environmental Quality, which was issued on June 18, 2018; (2) an erosion and sedimentation and control plan and

storm water general permit coverage for construction related activities, also issued on June 18, 2018; and (3) a N.C. Department of Transportation driveway permit. The permits required by Edgecombe County include: (1) a special use permit; (2) a building permit; and (3) an electrical permit. The required special use permit from Edgecombe County is described in some detail in the prefiled direct testimony of Ryan Van Portfliet. 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 Meghan Schultz.

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

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

On October 5, 2018 the Applicant filed its application for a CPCN and for registration as a new renewable energy facility, 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 October 16, 2018, and requested that the Commission issue a procedural order setting the matter for hearing. On November 8, 2018, the Commission issued an order requiring public notice, scheduling public and evidentiary hearings, and dealing with other necessary procedural matters.

On November 9, 2018, the Commission issued an errata order correcting ordering paragraph 8 of the November 8 Order, which had incorrectly specified the county where the Applicant should publish the public notice.

The Applicant discussed the need for this facility, citing North Carolina's Renewable Energy and Energy Efficiency Portfolio Standard (REPS) and DENC's Integrated Resource Plan (IRP). The Applicant stated that investor-owned utilities are required to meet up to 12.5% of their energy needs through renewable energy resources or energy efficiency measures by 2021. Rural electric cooperatives and municipal electric suppliers are required to meet 10% of their electricity demand by 2018. The Applicant noted that the Facility is expected to generate approximately 179,979 RECs annually.

The IRP filed by DENC on May 1, 2018, shows that DENC estimates its load serving entity peak and energy requirements will grow approximately 1.4% annually through the 15-year planning period. DENC forecasts that wholesale and retail energy sales will grow at an annual rate of 1.2% and 1.5% respectively over the planning period. By the end of the planning period, DENC states that there will be a solar capacity gap that ranges from approximately 4,500 MW to approximately 6,400 MW, depending on which alternative plan is selected. DENC expects to fill this gap primarily through purchases of solar energy from non-utility generators, such as the Applicant, rather than by building its own solar facilities. The Applicant states that if it chooses not to contract to sell its RECs to an in-state utility, there is still significant need in the PJM territory for both energy and RECs.

The Public Staff considers the Applicant's registration as a new renewable energy facility to be complete. The Applicant will participate in NC-RETS tracking with DENC reading the production meter for the REC issuance.

Recommendations

The Public Staff concludes that Edgecombe Solar has satisfied the requirements to obtain a CPCN and register as a new renewable energy facility pursuant to N.C. Gen. Stat. § 62-110.1, Commission Rule R8-63, and Commission Rule R8-66. The Applicant has shown that there is a need for the Facility, citing DENCs 2018 IRP as well as a future need for energy in the PJM region. Therefore, the Public Staff recommends that the Commission issue a CPCN to Edgecombe Solar, LLC and accept the registration of the Facility as a new renewable energy facility, with the following conditions:

- a. That Edgecombe Solar, LLC construct and operate the Facility in strict accordance with all applicable laws and regulations, including the provisions of all permits issued by the North Carolina Department of Environmental Quality;
- b. That Edgecombe 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 Edgecombe Solar, LLC file with the Commission in this docket a progress report and any revisions in the cost estimates for the Facility on an

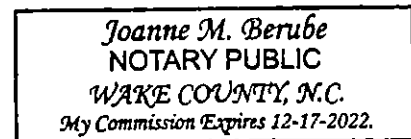
annual basis, including any storage systems to be constructed at a later date, with the first report due no later than six months from the date of issuance of the CPCN.

This completes my affidavit.

Evan Lawrence
Evan D. Lawrence

Sworn to and subscribed before me
on this the 31st day of December, 2018.

Joanne M. Berube
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.