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May 13, 2024

Ms. A. Shonta Dunston
Chief Clerk
NC Utilities Commission
430 N. Salisbury Street
Room 5063
Raleigh, NC 27603

**Re: In the Matter of Application of Shawboro East Ridge Solar, LLC, for a
Certificate of Public Convenience and Necessity to Construct a 150-MW
Solar Facility in Currituck County, NC
Docket No. EMP-117, Sub 0
*Applicant's Additional Cost Information - Public***

Dear Ms. Dunston:

On behalf of Shawboro East Ridge Solar, LLC ("Shawboro"), provided herewith is Applicant's Additional Cost Information (Redacted) in response to the Commission's April 11, 2024, Order requiring same.

If you have any questions concerning this filing, please do not hesitate to contact me.

Sincerely,

/s/ Benjamin L. Snowden

Ben Snowden

pbb

Enclosure

A Pennsylvania Limited Liability Partnership

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May 13 2024

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. EMP-117, SUB 0

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of)	
Application of Shawboro East Ridge Solar, LLC, for a Certificate of Public Convenience and Necessity to Construct a 150-MW Solar Facility in Currituck County, North Carolina)	APPLICANT'S ADDITIONAL COST INFORMATION

Applicant Shawboro East Ridge Solar LLC ("Shawboro" or "Applicant") hereby provides the following information responsive to the Order Requiring Additional Cost Information issued in this docket on April 11, 2024 ("April 11 Order"). The information provided herein relates to: (1) the estimated cost of the generating plant, interconnection facilities, upgrades, and affected system upgrades required for the facility; (2) LCOT calculations for affected system upgrades; and (3) the expected online date of the facility.

1. Cost of Generating Plant

The estimated cost of constructing the Shawboro East Ridge Solar facility ("the Facility") is approximately [REDACTED], exclusive of the cost of Interconnection Facilities that will be constructed by Shawboro (discussed below).

2. Cost of Interconnection Facilities

Shawboro will construct, and will own, the following Interconnection Facilities required for the Facility:

- a. One (1) 230kV circuit breaker;
- b. One (1) 230kV generator lead beginning at the high sides of the main power transformer, at the collector substation, and extending to the point of change of ownership with Interconnected Transmission Owner; and
- c. One (1) 230kV disconnect switch.

Because Shawboro will exercise its option to build these facilities, PJM has not provided cost estimates for Interconnection Facilities. Shawboro's estimate of the cost of constructing Interconnection Facilities is [REDACTED]. Shawboro is also responsible for \$[REDACTED] in PJM Oversight Costs associated with construction of Interconnection Facilities.

3. Cost of Network Upgrades

The estimated cost of Upgrades required for the Facility is \$[REDACTED]. Shawboro will not receive reimbursement for any Upgrade costs.

4. Cost of Affected System Upgrades

No Affected System Upgrade costs have been allocated to Shawboro.

5. Updated LCOT Calculation for Affected System Upgrades

The April 11 Order directs the Applicant to:

provide an updated LCOT calculation assuming that the Facility is responsible for all affected system costs necessitated by the facilities in its cluster, regardless of whether any of those costs presently are assigned or allocated to the Facility or to any other facility in the cluster, or whether any facility has a signed ASOA, and using the expected annual generator output in MWh of only the Facility;

Applicant cannot provide an LCOT calculation for affected system costs triggered by all facilities in PJM's AE1 cluster (to which the Facility belongs) because most facilities in this cluster are located on remote parts of the PJM system

and have not been identified as potentially impacting Duke Energy Progress (“DEP”) or any other North Carolina utility.

DEP has conducted one Affected System Study (including two revisions) on projects in the AE1 cluster that have impacts on the DEP system.¹ This includes the Shawboro Facility (queue no. AE1-072). In this study, DEP concluded that there is an existing overload on the DEP Everetts-Greenville 230 kV line that must be mitigated before AE1-072 can be interconnected. However, the study did not identify any affected system costs that were necessitated by any project in the AE1 cluster. Because there are no such costs, the LCOT of DEP affected system costs necessitated by projects in the AE1 cluster is \$0/MWh.

6. Although the Everetts-Greenville 230 kV line reconductoring was not necessitated by projects in the AE1 cluster, in the interest of completeness the Applicant has prepared an LCOT calculation for the cost of that upgrade, using the expected annual generator output of the Shawboro Facility. As the Commission found in its January 31, 2023, Order granting a CPCN to Sumac Solar (queue no, AD1-022, the project to which this upgrade was allocated), the impacted section of the Everetts-Greenville 230 kV line needs to be replaced for reliability reasons and not because of the interconnection of new generation.² The incremental cost

¹ This is DEP’s *Generator Interconnection Affected System Study Report for PJM Interconnection Cluster AE1* (3d rev. Nov. 2023), which the Applicant filed on March 22, 2024. Duke Energy Carolinas has not published Affected System Studies for projects in any PJM cluster.

² Order Granting Certificate of Public Convenience and Necessity with Conditions, Docket No. EMP-110, Sub 0 (Jan. 31, 2023) at 7-8 (finding of fact nos. 9, 11).


allocated to Sumac Solar for that upgrade is \$150,000.³ Assigning this cost *only* to the output of the Shawboro Facility yields an LCOT of [REDACTED] MWh.

7. When the Facility May Be Placed in Service

The estimated in-service date for the Facility is June 30, 2026.

Respectfully submitted, this the 13th day of May, 2024.

FOX ROTHSCHILD LLP



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³ As described in the Affected System Operating Agreement between DEP and Sumac Solar (filed in docket no. EMP-110, Sub 0 on October 19, 2022), the incremental cost represents: “(1) the cost differential between the conductor that would have been installed as part of the Upgrade Project and the higher capacity conductor needed to accommodate [Sumac Solar]'s interconnection of its proposed Generation Facility to the Interconnecting Utility system and (2) the cost for the current transformer ratio upgrades at the Affected System Operator's Greenville 230kV Substation.”