Oct 19 2021



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October 19, 2021

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

RE: In the matter of Juno Solar, LLC for Conditional Certificate of Public Convenience and Necessity to Construct a 275-MW Solar Facility in Richmond County, NC Docket No. EMP-116 Sub 0 EXHIBIT 3 – STATEMENT OF NEED

Dear Ms. Dunston:

On July 12, 2021, in the above referenced docket, Juno Solar, LLC filed an Application for a Conditional Certificate of Public Convenience and Necessity and Pre-Filed Direct Testimony of Piper Miller in support of same.

Exhibit 3, Statement of Need, was originally filed as a Confidential Exhibit in the docket and is now being submitted for public filing in the above referenced docket.

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

Sincerely,

/s/ Karen M. Kemerait

Karen M. Kemerait

A Pennsylvania Limited Liability Partnership

Califor	nia Colorado	Delaware	District of Colu	umbia l	Florida	Georgia	Illinois	Minnesota
Nevada	New Jersey	New York	North Carolina	Pennsylva	ania	South Carolina	Texas	Washington

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Juno Solar, LLC Merchant Plant CPCN Application Docket No. EMP-116, Sub 0 EXHIBIT 3

STATEMENT OF NEED

There is a need for the Juno Solar facility in the state and the region. Birch Creek is currently engaged in discussions with a large, well-established commercial off-taker, and plans to execute a Purchase Power Agreement ("PPA") term sheet for Juno Solar in the near future. The off-taker has expressed a strong desire to contract for Juno Solar's full volume, as renewable energy projects of this size are not presently available to the many renewable energy buyers in PJM.

Additionally, as an interconnection project falling under the Federal Energy regulatory Commission's ("FERC") jurisdiction, Juno Solar will have the ability to contract for its power output with either the incumbent integrated utility, DEP, or to reserve available transmission capacity and deliver its power to an adjacent balancing authority, including the PJM RTO. Both DEP and PJM have demonstrated the need for new renewable energy and flexible battery storage capacity in the coming years.

<u>DEP</u> – In its 2020 Integrated Resource Plan ("IRP"), DEP identifies six different planning scenarios for its resource portfolio. All six scenarios result in increased solar and storage capacity on the DEP system. For example, the "Base with Carbon Policy" scenario would add approximately 5 GW of new solar capacity and approximately 2 GW of storage capacity to the DEP system during the planning period, with substantially more solar and storage called for in scenarios that would achieve the objectives of the Governor's Clean Energy Plan, which requires 70% of the state's electric generation to be sourced from clean energy resources by 2030. Solely sourcing this energy from typical sub-100 MW solar projects and small storage installations is likely to prove inefficient (if not infeasible). It is therefore in the interest of meeting Duke's and the State's renewable goals to bring on-line large, flexile clean energy-generating resources, like Juno Solar.

<u>PJM</u> – Commercial and Industrial ("C&I") demand for clean energy in the PJM market is stronger than ever in the market's history and continues to grow. The year 2020 saw yet another increase in C&I demand for renewable energy, despite the challenges of the Covid-19 pandemic. Level Ten Energy, which matches renewable energy buyers and sellers and provides insight into nationwide renewable PPA pricing, noted an increase in solar PPA prices in PJM over the past two years, with a steady escalation in price from Q1 2019 to Q4 2020. "The convergence of more challenging local and state permitting regimes, prohibitively high grid upgrade costs, and a surge in buyer demand has resulted in a PJM market that is short in project supply, which has in turn led to rising PPA prices" observes Rob Collier, Vice President of Developer Relations at Level Ten in its Q4 2020 Energy PPA Price Index. The report finds PJM Solar PPA prices to be the highest of any ISO or RTO in the country, with a 25th percentile PPA price of \$37.50/MWh, underscoring the need for large and affordable solar power in the PJM

market. The other ISOs and RTOs in the United States range between \$25.10 and \$33.70/MWh for 25th percentile solar energy PPA prices.

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