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June 28, 2023

VIA ELECTRONIC FILING

Ms. A. Shonta Dunston
North Carolina Utilities Commission
4325 Mail Service Center
Raleigh, North Carolina 27699-4300

**RE: Duke Energy Progress, LLC's Proposed Order
Docket No. E-2, Sub 1311**

Dear Ms. Dunston:

Please find enclosed for filing Duke Energy Progress, LLC's Proposed Order in the above-referenced docket.

If you have any questions, please let me know.

Sincerely,

A handwritten signature in black ink that reads "Jason Higginbotham".

Jason A. Higginbotham

Enclosure

cc: Parties of Record

OFFICIAL COPY

JUN 28 2023

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-2, SUB 1311

In the Matter of)	
)	
Application of Duke Energy Progress, LLC for)	PROPOSED ORDER OF
A Certificate of Public Convenience and)	DUKE ENERGY PROGRESS,
Necessity to Construct a Solar Generating)	LLC
Facility in Buncombe County, North Carolina)	
)	
)	

BY THE COMMISSION: On January 23, 2023, Duke Energy Progress, LLC (“DEP” or the “Company”) filed a verified application pursuant to N.C. Gen. Stat. §62-110.1 and North Carolina Utilities Commission (“Commission”) Rule R8-61 for a Certificate of Public Convenience and Necessity (“CPCN”) authorizing the construction and completion of a solar photovoltaic electric generator on DEP-owned land in Buncombe County, North Carolina (“Asheville Plant Solar Facility” or “Facility”). The Asheville Plant Solar Facility is consistent with the Company’s commitment to construct at least 15 MW of solar in the Asheville region and the Commission’s March 28, 2016, *Order Granting Application, in Part, with Conditions, and Denying Application in Part* in Docket No. E-2, Sub 1089 (“the WCMP Order”) directing DEP to follow through on that commitment. In support of the CPCN Application, the Company included the supporting direct testimony and exhibits of Justin LaRoche, Director of Renewable Development, and the Exhibits required by Commission Rule R8-61. In accordance with Commission Rule R8-61(b)(1), the Company submitted Exhibit 1A which contains portions of the 2020 Duke

Energy Progress Integrated Resource Plan (“IRP”), the Commission’s December 30, 2022 Order Adopting Initial Carbon Plan and Providing Direction for Future Planning, issued in Docket No. E-100 Sub 179 (“Carbon Plan Order”), the as-filed 2022 joint DEP and Duke Energy Carolinas, LLC’s (“DEC” and together with DEP, “Duke Energy”) Carbon Plan (“Duke Energy Carbon Plan”), and Appendix E (Solar) to the 2022 Duke Energy Carbon Plan. The Company also submitted Exhibit 1B, which contained the additional resource planning information required by Rule R8-6(b)(1), Exhibit 2 (Siting and Permitting Information), Confidential Exhibit 3 (Equipment and Cost Information) and Exhibit 4 (Construction Schedule and Other Facility Information), as required by Commission Rules R8-61(b)(1) and R8-61(b)(2)-4.

The intervention of the Public Staff has been recognized pursuant to N.C. Gen. Stat. §62-15(d) and Commission Rule R1-19(e).

On February 2, 2023, the Commission issued its *Order Scheduling Hearings, Requiring Filing of Testimony, Establishing Procedural Guidelines and Requiring Public Notice* (“Scheduling Order”). The Scheduling Order, among other things, scheduled a public witness hearing to be held in Asheville, Buncombe County on April 5, 2023 at 7:00 P.M. at the Buncombe County Courthouse in Asheville, North Carolina. The Scheduling Order provided that the Commission could cancel the public witness hearing if no substantial written complaints regarding the proposed facility were received by the Commission’s Chief Clerk on or before March 24, 2023. In addition, the Scheduling Order scheduled a hearing on May 22, 2023 for the purpose of receiving expert witness testimony on the Application.

On February 2, 2023, the Commission sent a letter to the State Environmental Review Clearinghouse providing notification of DEP's Application.

On March 14, 2023, DEP filed the Affidavit of Publication for the public notice as required by the Scheduling Order.

On March 24, 2023, the State Environmental Review Clearinghouse filed a letter along with its comments on the Application, stating that "no further State Clearinghouse review action on your part is needed for compliance with the North Carolina Environmental Policy Act".

On March 28, 2023, DEP filed a motion to cancel the Public Witness hearing because no substantial written complaints regarding the proposed facility had been received by the Commission's Chief Clerk by March 24, 2023. DEP's motion was granted by Order of the Commission issued on March 29, 2023.

On April 26, 2023, DEP filed supplemental information related to the Application and requested that the supplemental information be incorporated with and considered part of the Company's Application.

On May 5, 2023, the Public Staff filed the Testimony of Jeff Thomas. On May 9, 2023, the Public Staff filed corrections to the Testimony of Jeff Thomas. On May 9, 2023, the Western NC Sierra Club Group and MountainTrue filed Consumer Statement Positions in support of the proposed facility. On May 12, 2023, a Letter of Support was filed by the Asheville Area Chamber of Commerce as well as a Consumer Statement of Position in support of the proposed facility by the Buncombe County Government. On May 15, 2023, DEP filed the Rebuttal Testimony of Justin LaRoche. On May 16, 2023, the Public Staff

filed Corrections to the Testimony of Jeff Thomas which included the corrected pages of the testimony.

The Company's case was heard by the Commission on May 22, 2023. On May 25, 2023 the Commission filed its *Order Requiring Proposed Order* requiring parties to file proposed orders or briefs within 21 days from the issuance of the transcript which was posted on June 2, 2023.

On June 22, 2023, the Commission filed *Errata* for the transcript of the May 22, 2023 hearing.

On June 22, 2023, Public Staff filed a motion for extension of time seeking a five-day extension of the deadline for proposed orders or briefs until June 28, 2023.

On June 23, 2023, the Commission issued an *Order Granting Public Staff's Motion for Extension of Time* granting the motion and extending the deadline for proposed orders and briefs to June 28, 2023.

The Company and the Public Staff filed their respective proposed orders on June 28, 2023

Based upon the Company's verified CPCN Application ("Application"), the testimony and exhibits received into evidence, and the record, the Commission makes the following:

FINDINGS OF FACT

1. DEP is a public utility with a public service obligation to provide electric utility service to customers in its service area in North Carolina and is subject to the jurisdiction of the Commission.

2. The Commission has jurisdiction over the Application. Pursuant to N.C. Gen. Stat. § 62-110.1 and Commission Rule R8-61(b), a public utility must receive a CPCN prior to constructing electric generating facilities.

3. The Application has satisfied all the requirements of N.C. Gen. Stat. § 62-110.1 and Commission Rule R8-61.

4. The Asheville Plant Solar Facility consists of an approximately 9.5 megawatts (“MW”) alternating current (“AC”) /12,8 MW direct current (“DC”) solar photovoltaic (“PV”) electric generator to be constructed in Buncombe County, North Carolina. The Asheville Plant Solar facility consists of PV modules affixed to a fixed-tilt racking system, 20 degree fixed-tilt racking, solar inverters, electrical protection and switching equipment, and step-up transformers.

5. The Western Carolinas Modernization Project (“WCMP”) includes targets of 15 MW of solar and 5 MW of energy storage in the Asheville region, which targets were originally proposed by DEP in its application to construct combined cycle generating units at the Asheville coal generation facility site. DEP’s application to construct generating units pursuant to the Mountain Energy Act did not include an application to construct a solar facility, but the construction of a solar facility in the Asheville region was contemplated by the WCMP Order. The Asheville Plant Solar Facility is part of the larger WCMP.

6. The Asheville Plant Solar facility is the final component of the WCMP and is consistent with the WCMP Order wherein DEP has identified opportunities to deploy 15 MW of solar PV throughout the region.

7. The Asheville Plant Solar Facility will be constructed at DEP's Asheville Plant site, a brownfield development of a former coal generation site with sufficient acreage to support the Facility, with existing interconnection facilities and is DEP owned.

8. DEP's 2020 Integrated Resource Plan ("IRP") was filed in Docket No E-100 Sub 165 and includes 15 MW of solar that represents the solar required to meet DEP's commitment to the WCMP and DEP's 2020 IRP.

9. Because of the unique needs of the Asheville service area, exploring the wholesale market for the capacity and energy to serve this need is not feasible. Operation of the Asheville Plant Solar Facility will have no emissions or pollutants and will be 100% renewable.

10. The Company's confidential construction cost estimate for the Asheville Plant Solar Facility is reasonable and is hereby approved.

11. The Asheville Plant Solar Facility is consistent with the WCMP Order, in which the Commission directed DEP to file CPCNs to construct at least 15 MW of solar at the Asheville Plant or in the Asheville region.

12. The overall public convenience and necessity would be served by granting the certificate for the solar facility. DEP will gain valuable experience by operating the Asheville Plant Solar Facility, and the actual operational data gained from experience and data collection and analysis will be beneficial in future cost benefit analyses of projects on sites formerly occupied by fossil facilities that have been decommissioned. For these reasons, pursuant to N.C. Gen. Stat. §62-110.1, the issuance of a Certificate of Public Convenience and Necessity for the Asheville Plant Solar Facility proposed by DEP is granted.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 1-2

These findings are informational, procedural, and jurisdictional in nature and are uncontroverted.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 3-7

These findings are supported by the Application and exhibits, the direct and rebuttal testimony and exhibits of DEP witness LaRoche and the testimony of Public Staff witness Thomas.

DEP witness LaRoche testified that the Asheville Plant Solar Facility will be constructed as an approximately 9.5 MW alternating current (“AC”) / 12.8 MW direct current (“DC”) solar photovoltaic (“PV”) electric generator in Buncombe County, North Carolina, and will be situated on DEP’s Asheville Plant site.

According to witness LaRoche, the Asheville Plant Solar Facility is expected to produce approximately 19,70 MWh per year. This corresponds to a 23.7% capacity factor. The service life of the asset is 35 years.

Witness LaRoche testified that the Asheville Plant Solar Facility is a key component of the WCMP and the Commission’s WCMP Order in Docket No. E-2, Sub 1089 which accepted DEP’s commitment to solar projects and directed DEP to file as soon as practicable CPCN applications to construct at least 15 MW of solar at the Asheville Plant or in the Asheville region. The Asheville Plant Solar Facility fulfils DEP’s commitment and complies with the Commission’s directive in the WCMP Order.

Witness LaRoche testified that the Company’s 2020 IRP identifies the need for approximately 8,800 MW of new resources to meet customers’ energy needs by 2035 and 100 MW of energy storage and approximately 930 of incremental solar installations from

2021 through 2025 and that the Asheville Plant Solar Facility is consistent with DEP's 2020 IRP. Witness LaRoche further testified that the cost estimate for the Asheville Plant Solar Facility is approximately \$24.3 MM and that if the Commission approves the Company's Application, site mobilization could begin in late 2024 or early 2025 with final commissioning in September 2025.

Witness LaRoche testified that DEP did not evaluate the wholesale market for alternatives to the capacity and energy to be provided by the Asheville Plant Solar Facility due to the unique circumstances of the facility and the Commission's WCMP Order requirements. DEP will conduct a comprehensive bid process that will include soliciting cost proposals for all the major components and construction of the project to ensure the lowest reasonable cost for the facility. DEP intends to seek to obtain components and services from North Carolina providers where possible and effective.

Public Staff witness Thomas testified that Public Staff's opposition to the CPCN is based on the cost which is more expensive than other similar solar capacity in DEP-East and that based upon the Public Staff's investigation of the Application, the Company relied on the WCMP and the Commission's March 28, 2016 *Order Granting Application, in Part, with Conditions, and Denying Application in Part* in Docket No. E-2, Sub 1089, to justify the need for the project. Witness Thomas further testified that based upon the Commission's Woodfin Order in Docket No. E-2, Sub 1257 ("Woodfin Order"), the Commission's Carbon Plan Order, and DEP's recent WCMP updates, the Public Staff believes that the Asheville Plant Solar Facility is needed only insofar as the Commission continues to believe the WCMP Order is dispositive in the determination of need. Witness Thomas summarized the position of the Public Staff as follows: "If the Commission

believes the WCMP alone is sufficient to support the need for the Facility, the Public Staff recommends approval of the CPCN. If the Commission no longer believes the WCMP is sufficient to support the need for the Facility, then the Public Staff recommends the Commission deny the CPCN and direct DEP to remove the Facility from the Carbon Plan baseline and competitively procure the shortfall, potentially in DEP-East, and to wheel the power to DEP-West if necessary.”

Witness Thomas testified that the Levelized Cost of Energy (“LCOE”) is a metric that measures the total costs of building and operating a generator to the total energy produced, over the lifetime of the generator and that DEP could build a larger facility in DEP-East for the same cost as the Asheville Plant Solar Facility.

Witness Thomas further testified that the Public Staff’s investigation found that modest peak load growth in the DEP western region is expected to occur primarily in the winter morning and cannot be met by the Asheville Plant Solar Facility. Further, DEP’s Asheville Plant Solar Facility will generate power at a significant premium to DEP’s applicable long-term avoided cost rates, imposing a premium on all of DEP’s ratepayers and contrary to the solar pricing trends of projects procured through the Competitive Procurement of Renewable Energy Program (“CPRE”). Witness Thomas then stated that the Public Staff in the past has supported solar and storage projects that were not necessarily cost-effective, if the need for the facility was clearly defined independently of the WCMP Order and if the facility could provide some offsetting system benefits.

Witness Thomas testified that the WCMP Order also emphasized DEP’s commitment to energy efficiency (“EE”) and demand-side management (“DSM”) but that it was unclear whether DEP-West has adopted EE and DSM at a higher rate than DEP as a

whole. Witness Thomas also compared the projected costs of the Facility with projects in other parts of the country and concludes that the capital cost is 49% greater than the capital cost of projects between 5 and 20 MW that were installed in 2021 and 98% greater than projects in the southeast region that were installed in 2021.

Witness Thomas also testified that construction of the Asheville Plant Solar Facility was inconsistent with the objectives of S.L. 2021, Section 5 (“HB 951”) because HB 951 requires solar to be procured in the least-cost manner and that a potential consolidation of operations by DEP and Duke Energy Carolinas, LLC (“DEC”) could address some of the challenges faced by DEP for delivering power to the DEP-West region.

Company witness LaRoche filed rebuttal testimony in response to the testimony of Public Staff witness Thomas. Witness LaRoche testified that he did not believe it was reasonable to compare the projected costs of the Asheville Plant Solar Facility with projects in other parts of the country, where land may be acquired at a lower cost and utility infrastructure may be more readily accessible. Witness LaRoche stated that the Company has taken a comprehensive approach to delivering the Asheville Plant Solar Facility in the most cost-effective manner given the context of the WCMP Order, which directed a finite amount of solar to be developed in the Asheville region. Further, the small scale of development in the WCMP Order provides limits to overall cost exposure to consumers while providing unique benefits.

Witness LaRoche disagreed with Public Staff witness Thomas’s comparison of the LCOE of the Facility to the purchase power cost of CPRE projects by stating that a smaller project developed in the Asheville area would not be able to compete on LCOE basis with a larger CPRE solar project. Larger scale projects associated with CPRE are being built

under more ideal site conditions and have economies of scale and do not serve as a reasonable comparison to smaller distributed generation projects such as the Asheville Plant Solar Facility and pointed out to his understanding that none of the recent winning CPRE projects have been in DEP West.

Witness LaRoche disagreed with Public Staff Witness Thomas that consolidated system operations (“CSO”) might address some of the challenges of delivering power to the DEP-West region.

Based on the foregoing, the Commission concludes that the Asheville Plant Solar Project is consistent with DEP’s 2020 IRP and that the Public Staff’s opposition to the Application have been rebutted by DEP Witness LaRoche. The Commission concludes that providing a diversity of energy resources at a relatively reasonable cost based on the challenges associated with developing generating resources in the DEP-West region and based on the transmission limitations of the area is critical to serving the needs of DEP’s customers and, that it will be constructed at a competitive capital cost and is in the public interest.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 8-12

This finding is supported by the Application and exhibits, the direct and rebuttal testimony and exhibits of DEP witness LaRoche and the testimony of Public Staff witness Thomas.

The DEP witness LaRoche testified that the Asheville Plant Solar Project fulfilled both the letter and the spirit of the WCMP Order that is broadly supported by the Asheville and Western North Carolina community. DEP has an ideal site to enable it to build a 9.5 MW solar facility in the Asheville area at below market land cost while helping it to gather

further experience and knowledge concerning the construction and operation of a solar generating facility on a closed fossil plant facility. DEP has also developed a relationship with Buncombe County and the Western North Carolina community to support investment in increasing renewable energy resources in an area of the state that has lagged other areas of the state in terms of solar development. In contrast, the Public Staff's assessment of the public interest in this proceeding is nearly entirely focused on a comparison of the Asheville Project with current avoided costs and cost comparisons with other not-relevant regions of the country and continue to discount the greater context of the WCMP and the Commission's recognition of the "elastic" nature of the public convenience and necessity standard. However, Public Staff witness Thomas also testified that an analysis of the entire WCMP portfolio suggests that the impact of the Asheville Facility would be minor and that the entire WCMP portfolio would be likely below the Company's most recent estimate of its 25-year avoided costs, with or without the Asheville Facility.

DEP witness LaRoche acknowledged that the cost of the project is higher than current avoided costs and that avoided costs are an important tool to be considered by the Commission. But relying on avoided costs and cost comparison with other regions to assess whether the Asheville Plant Solar Facility is in the public interest is simply not reflective of the Commission's WCMP Order, which sought to modernize the Company's electricity supply in Western Carolinas, including through the deployment of renewable resources. Nowhere in the WCMP Order or in the underlying proceeding did the Commission or any party identify avoided cost as the sole benchmark of the public interest. Instead, the Company was directed to develop smaller solar resources in an area of the state whose topography and land prices are not conducive to the lowest cost solar resources.

The Commission certainly could have directed the Company to simply develop the lowest cost solar resources at or below avoided costs regardless of the area of the state, but that would not have been consistent with intent of the WCMP. Instead, the Commission directed the development of solar resources under certain parameters that aligned with the regions' broad support for the development of new renewable resources.

DEP witness LaRoche testified that as it relates to those factors that are within the Company's control, the Company has taken reasonable steps to ensure a cost-effective project, citing for example, the capital cost of the project. On a percentage basis, the largest cost by far of any solar project is the engineering, equipment and construction costs. In the case of the Asheville Plant Solar Project, the engineering, equipment and construction costs represent almost 90% of the total cost of the project. The construction costs for the Asheville Plant Solar Project will be obtained through a competitive process and will be consistent with current market prices. Finally, the site on a closed fossil plant owned by the Company is well-situated from an interconnection perspective, which will allow the project to interconnect at a relatively low cost and without any foreseeable complexity or interconnection challenges.

Witness LaRoche also testified that the LCOE for the Asheville Plant Solar Facility reflects the costs of siting a solar facility in a challenging location whereas the Solar Reference and Avoided Costs are benchmarks that are used to assess proposals from solar developers to construct facilities in a competitive process, which are often being constructed up to 80MW.

Witness LaRoche disagreed with the testimony of Witness Thomas that the Asheville Plant Solar Facility is inconsistent with the objectives of S.L. 2021-165, Section

5 (“HB 951”) that requires solar to be procured in the least-cost manner by stating that DEP is not proposing to construct the Asheville Plant Solar Facility to comply with HB 951. It is being built to fulfill DEP’s commitments under the WCMP Order and that DEP believes that it is taking steps to ensure that construction will be performed in a least-cost manner. Witness Thomas acknowledged that the relatively small cost of the WCMP solar project would likely have an immaterial impact on the overall WCMP economics and that the entire portfolio of projects is below the Company’s avoided cost and that the projects were critical to the Asheville community.

Witness LaRoche stated that the testimony of Witness Thomas that future CSO by DEP and DEC might address challenges DEP- West has in delivering power to the DEP- West region was premature in that system-wide efforts may take years to accomplish. Further, even if CSO or a utility merger did reduce the cost of importing power into DEP- West, the Commission’s directive in the WCMP Order to site up to 15 MW of solar in the Asheville region would remain.

The Commission notes that no party from DEP-West has come forward in opposition to the Asheville Plant Solar Facility CPCN and that several parties, including the City of Asheville, Buncombe County, the Asheville Area Chamber of Commerce, MountainTrue and the Sierra Club, as well as two individuals have filed statements in the record supporting the Asheville Plant Solar Facility CPCN.

Witness LaRoche testified that the Asheville Plant Solar Facility is entirely consistent with the terms and expectations of the WCMP Order, is broadly supported by the community, will be constructed at a competitive capital cost, is reasonably priced in light of the overall context of the WCMP, and should be found to be in the public interest.

As we previously stated in the Woodfin Order at p. 15: “General Statutes Section 61-110.1 provides for the orderly expansion of electric generating capacity to create a reliable and economical power supply and to avoid the costly overbuilding of generation resources. *State ex rel. Utils. Comm’n v. Empire Power Co.*, 112 N.C. App. 265, 278 (1993), *disc.rev. denied*, 335 N.C. 564 (1994); *State ex rel. Utils. Comm’n v. High Rock Lake Assn*, 37 N.C. App 138, 141, *disc. rev. denied*, 295 N.C. 646 (1978). A public need for a proposed generating facility must be established before a certificate is issued. *Empire*, 112 N.C. App. At 279-80; *High Rock Lake*, 37 N.C.App. at 140. Beyond need, the Commission must also determine if the public convenience and necessity are best served by the generation being proposed. The standard of public convenience and necessity is relative or elastic, rather than abstract or absolute, and the facts of each case must be considered. *State ex rel. Utils. Comm’n v. Casey*, 245 N.C. 297, 302 (1957). Subsections 62-110.1 (c)-(f) direct the Commission “to consider the present and future needs for power in the area, the extent, size, mix and location of the utility’s plants, arrangements for pooling or purchased power, and the constructions costs of the project before granting a [CPCN] for a new facility.” *High Rock Lake*, 37 N.C. App at 140-41, As hereinafter discussed, the Commission has considered all of these factors in determining whether the public convenience and necessity are served by the proposed Woodfin Facility.”

The Commission concludes that the Asheville Plant Solar Facility is consistent with the WCMP Order. As we stated in the Woodfin Order, the WCMP Order gave credit to DEP and the Asheville area for working together to solve the energy needs and challenges facing the DEP-West Region and we take note of the work and efforts of the stakeholders in this regard and the statements of support for the Asheville Plant Solar Facility and

conclude that the Asheville Plant Solar Facility is consistent with the WCMP Order and with the Commission’s directive to engage the community in planning for the transition to renewable energy resources. In the WCMP Order, the Commission accepted DEP’s commitment to solar and storage projects and held, “As to solar and storage, the Commission expects DEP to file as soon as practicable the CPCN to construct at least 15 MW of solar at the Asheville Plant or in the Asheville region. The Commission further urges DEP to move forward in a timely manner with the 5 MW storage project in the Asheville region.” WCMP Order at p. 38.

IT IS, THEREFORE, ORDERED as follows:

1. That the application filed in this docket shall be, and the same is hereby, approved and a certificate of public convenience and necessity for the Asheville Plant Solar Facility, is hereby granted; and
2. That the attached Attachment A shall constitute the certificate of public convenience and necessity issued to DEP for the Asheville Plant Solar Facility.

ISSUED BY ORDER OF THE COMMISSION.

This the ____ day of _____, 2023.

NORTH CAROLINA UTILITIES COMMISSION

A. Shonta Dunston, Chief Clerk

CERTIFICATE OF SERVICE

I certify that a copy of Duke Energy Progress, LLC's Proposed Order, in Docket No. E-2, Sub 1311, has been served by electronic mail, hand delivery, or by depositing a copy in the United States Mail, 1st Class Postage Prepaid, properly addressed to parties of record.

This the 28th day of June, 2023.



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