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January 19, 2021

VIA ELECTRONIC FILING

Ms. Kimberley A. Campbell, Chief Clerk
North Carolina Utilities Commission
4325 Mail Service Center
Raleigh, NC 27699-4300

**RE: Proposed Order and Post-Hearing Brief of Duke Energy Progress,
LLC
Docket No. E-2, Sub 1257**

Dear Ms. Campbell:

Please find enclosed for filing in the above-referenced docket the Proposed Order and Post-Hearing Brief of Duke Energy Progress, LLC. An electronic copy is being emailed to briefs@ncuc.net.

Thank you for your attention to this matter. Please do not hesitate to contact me if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Jack Jirak", written in a cursive style.

Jack E. Jirak

Enclosure

cc: Parties of Record

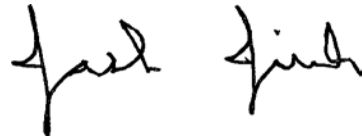
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Jan 19 2021

CERTIFICATE OF SERVICE

I certify that a copy of the Proposed Order and Post-Hearing Brief of Duke Energy Progress, LLC, in Docket No. E-2, Sub 1257, has been served by electronic mail, hand delivery or by depositing a copy in the United States mail, postage prepaid to parties of record.

This the 19th day of January, 2021.

A handwritten signature in black ink, appearing to read "Jack Jirak". The signature is written in a cursive style with a horizontal line underneath the text.

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STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-2, SUB 1257

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 July 27, 2020, Duke Energy Progress, LLC (“DEP” or the “Company”) filed a verified application pursuant to N.C. Gen. Stat. § 62-110.1 and Commission Rule R8-61 (“Application”) for a Certificate of Public Convenience and Necessity (“CPCN”) authorizing the construction and completion of the Woodfin Solar Generating Facility (“Woodfin Solar Facility”) in Buncombe County, North Carolina on a landfill owned by Buncombe County. The Woodfin Solar Facility has been proposed in connection with 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 (“WCMP Order”).

In support of the Application, the Company included the direct testimony and exhibits of Lawrence Watson, Director of Distributed Asset Commercial Development. The Company also submitted Confidential Exhibit 1A which contained the 2018 Duke Energy Progress Integrated Resource Plan (“IRP”) and the 2019 IRP Update Report and Exhibit 1B which contained additional resource planning information. Finally, the

Application also contained 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 August 6, 2020, the Commission issued its *Order Scheduling Hearings, Requiring Filing of Testimony, Establishing Discovery 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 October 8, 2020. On August 14, 2020 the Commission issued its *Order Scheduling Public Hearing to be Held Remotely and Requiring Revised Public Notice* and on September 21, 2020 the Commission issued its *Order Scheduling Remote Expert Witness Hearing, Requiring Filing of Cross-Exam and Redirect Exhibits and Addressing Other Matters* (“Remote Hearing Order”). On September 28, 2020 the Commission issued its *Amended Order Correcting Date for Expert Witness Hearing and Dates for Related Filings*. On October 7, 2020 the Commission issued its *Order Canceling Remote Public Witness Hearing* citing the lack of significant protest. On October 7, 2020 the Company filed proof of publication of the public notice in the Asheville Citizen-Times a newspaper having general coverage in Buncombe County, North Carolina.

On October 20, 2020 the Public Staff filed the Testimony of Jeff Thomas. On October 29, 2020 the Commission filed its *Order Granting Extension on Time to file Rebuttal Testimony*. On October 30, 2020, the State Environmental Review Clearinghouse

("State Clearinghouse") filed a letter with agency comments about the Woodfin Solar Facility, stating that no further action was needed on the Commission's part for compliance with the North Carolina Environmental Policy Act.

On October 27, 2020 the Public Staff filed its consent to remote hearing and on October 29, 2020 the Company filed its consent to remote hearing. On November 4, 2020 the Public Staff filed potential cross examination exhibits, and the Company filed its potential cross examination exhibits. On November 6, 2020 the Company filed rebuttal testimony of Lawrence Watson, Todd Beaver and Jason Walls.

Since the filing date of the Company's Application there have been close to 200 Consumer Statements of Position filed in this docket, all positive in support of the Woodfin Solar Facility and none in opposition. In addition, letters in support of the Woodfin Solar Facility have been filed by the North Carolina Sustainable Association, the Western North Carolina Renewables Coalition, MountainTrue, the Western North Carolina Sierra Club, the Southern Environmental Law Center, the Mayor of the City of Asheville, North Carolina and the Buncombe County Commission. On November 17, 2020, MountainTrue and the Sierra Club requested that a new remote hearing for public witness testimony be allowed since at the time of the cancellation of the initial public hearing, Public Staff had not yet filed testimony opposing the project.

Pursuant to the Commission's Remote Hearing Order, the Company's case was heard by the Commission on November 18, 2020. On December 4, 2020, the Public Staff file its Late-Filed Exhibits and on December 9, 2020, the Company filed its Late-Filed Exhibit. On December 11, 2020 the Commission filed its *Notice of Due Dates for Proposed Orders and/or Briefs*, which required parties to file proposed orders and/or briefs

on or before January 11, 2021. On December 15, 2020 the Commission filed its *Order Denying Request to Schedule Additional Public Hearing*.

The Company filed its post-hearing brief and proposed order on January 19, 2021. The Public Staff filed [_____] on January 19, 2021.

Based upon the Company's verified 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 satisfied all of the requirements of N.C. Gen. Stat. § 62-110.1 and Commission Rule R8-61.

4. The Woodfin Solar facility is part of the larger Western Carolinas Modernization Project ("WCMP") and is consistent with the WCMP Order.

5. The Woodfin Solar Facility is identified in and consistent with the 2018 IRP, the 2019 IRP Update Report and the 2020 IRP.

6. The Woodfin Solar Facility is consistent with the letter and intent of the WCMP Order. The Company's confidential construction cost estimate for the Woodfin Solar Facility is reasonable and is hereby approved. The Woodfin Solar Facility is cost-effective given the parameters imposed in the WCMP Order. The Company has taken

reasonable steps to reduce the cost of the Woodfin Solar Facility, and the Public Staff's use of current avoided costs as the sole measure of the public interest is inappropriate within the particular context of the WCMP and the directives in the WCMP Order.

7. Importantly, DEP will gain valuable experience in designing, constructing and operating a solar facility on a closed municipal landfill and such experience will be beneficial in considering any future solar projects on closed municipal landfills.

8. For these reasons, pursuant to N.C. Gen. Stat. § 62-110.1, the Company's Application for a CPCN for the Woodfin Solar Facility is granted with the understanding that DEP and Buncombe County will amend the lease agreement for the landfill site to reflect that the REC value will equal the land value which will effectively reduce the annual cost of the lease to \$0.

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 FINDING OF FACT NO. 3

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

The Woodfin Solar Facility is described in the Application, and the direct testimony of DEP witness Watson and consists of an approximately 5 megawatts ("MW") alternating current ("AC") / 6.3 MW direct current ("DC") solar photovoltaic ("PV") capacity. According to witness Watson, the Woodfin Solar Facility will consist of PV panels affixed to ballasted foundation system, 20 degree fixed-tilt racking, solar inverters, electrical

protection and switching equipment, and step-up transformers. Additional equipment to support the facility will include circuit breakers, combiners, surge arrestors, conductors, disconnect switches, and connection cabling. The Woodfin Solar Facility is expected to produce approximately 9,413 MWh per year. This corresponds to a 21.5% capacity factor. The service life of the asset is 25 years.

As described in the Application and the testimony of DEP witness Watson, the Woodfin Solar Facility will be sited on closed Buncombe County Landfill. The Woodfin Solar Facility will be interconnected to the single DEP-owned 24 kV distribution feeder. The site is approximately 25 acres and is enclosed by security fencing along its perimeter boundary. Consistent with Commission Rule R8-61, DEP submitted information concerning the Woodfin Solar Facility site and permitting details and details related to the anticipated constructions schedule and other aspects of the facility.

Public Staff witness Thomas testified that Application is complete, and that DEP provided information satisfying all requirements of N.C. Gen. Stat. § 62-110.1 and Commission Rule R8-61.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 4

This finding is supported by the Application and exhibits, the direct and rebuttal testimony and exhibits of DEP witnesses Watson, Beaver and Walls, and the testimony of Public Staff witness Thomas, and the WCMP Order (regarding which the Commission takes judicial notice).

In the WCMP Order, the Commission approved with modifications, the Company's proposed WCMP, which was DEP's comprehensive plan to retire the 1960s-era Asheville coal units and replace them with a combination of new natural gas generation, at least 15

MW of new solar generation and 5 MW of new battery storage in the Asheville area, and to establish a collaborative community effort to delay or eliminate the need for an additional contingent new combustion turbine unit through innovative and aggressive energy efficiency and demand side management efforts. More specifically, in the WCMP Order, the Commission asserted its expectation that the DEP would “file as soon as practicable the CPCN to construct at least 15 MW of solar at the Asheville Plant or in the Asheville region.”

DEP witness Watson testified that WCMP Order was focused on modernizing the Company’s electricity supply in Western Carolinas, including through the deployment of renewable resources. DEP witness Walls testified regarding the Company’s community engagement in connection with the WCMP and the WCMP Order to ensure the continued reliability of service while seeking to align with the community’s goals and desires. Witness Walls also testified concerning the strong community interest in the successful development of the solar projects contemplated by the WCMP and the bedrock expectation that such solar projects were an integral part of the overall plan. In fact, Witness Walls testified that the Woodfin Solar Facility became a rallying point and a tangible sign of significant progress toward local renewable energy goals.

Therefore, the Commission concludes that the Woodfin Solar Facility is consistent with the WCMP Order.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 5

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

The Application and the testimony of Witness Walls asserted that the comprehensive planning process for the 2018 IRP demonstrates that a combination of renewable resources, DSM/EE programs, and additional base load, intermediate, and peaking generation are required over the next fifteen years to reliably meet customer demand. From a total system perspective, the DEP 2018 IRP identifies the need for approximately 6,300 MW of new resources to meet customers' energy needs by 2033. Additionally, the 2018 IRP calls for 80 MW of energy storage and approximately 1,000 MW of incremental solar installations over the next five years.

Public Staff witness Thomas appears to agree that the Woodfin Solar Generating Facility is consistent with DEP's IRP and certainly did not assert that the project is inconsistent with DEP's IRP.¹

Accordingly, the Commission concludes that Woodfin Solar Facility is consistent with the 2018 IRP as well as the 2019 IRP Update Report. The Commission hereby takes judicial notice of DEP's 2020 IRP and finds that the Woodfin Solar Facility is also consistent with the 2020 IRP.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 6-8

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

On direct, DEP witness Watson testified that the Woodfin Solar Facility is a key component of the WCMP and the Commission's WCMP Order, which directed DEP to file as soon as practicable CPCN applications to construct at least 15 MW of solar in the

¹ Thomas Direct Testimony, at 14-15 ("In the Application, DEP provides other justifications, including...consistency with DEP's IRP. While the Facility may satisfy these goals....").

Asheville Plant or in the Asheville region. In order to identify sites suitable for solar in the Greater Asheville Region, DEP conducted a GIS solar suitability survey and, upon being aware that Buncombe County was interested in making their landfill site available for solar development to support the County's renewable energy DEP, presented Buncombe County a proposal to allow it to lease the closed landfill to support the WCMP's goal to advance solar development in the area.

According to DEP witness Watson, the site was determined to have the following beneficial characteristics: (1) the site is on a municipal landfill and zoned for industrial land use and has approximately 30 acres of relatively flat, buildable area on one parcel; (2) the acreage is sufficient for siting multiple MW of solar generation, and the site is primarily clear of trees and debris; (3) the point of interconnection is located adjacent to the planned project and on the same property and does not require additional land rights or permitting to access the interconnection facilities; (4) the site is not adjacent to residential customers; (5) the site does not require tree clearing to support the solar; and (6) the site is owned by a single landowner willing to enter into a lease agreement in support of the project and community's goals.

Witness Watson testified that while developing solar on a landfill can have an impact on costs due to the inability to penetrate the landfill cap, the size and other positive characteristics described help to balance overall project costs and limit local environmental impacts. In addition, finding available sites within the Asheville region that can support a solar facility of this scale while limiting environmental impacts (such as tree clearing and wetland disturbance) is challenging given topography and high land cost in the Asheville region.

Witness Watson testified that DEP did not evaluate the wholesale market for alternatives to the capacity and energy to be provided by the Woodfin Solar Facility due to the unique circumstances of the facility and the Commission's directives of the WCMP Order. DEP did conduct a comprehensive bid process that included soliciting cost proposals for all the major components and construction of the project to ensure the lowest reasonable cost for the facility.

Public Staff witness Thomas testified that the Company relied solely on the WCMP Order to justify the need for the project. Witness Thomas testified that the Public Staff believed that DEP's sole reliance upon the WCMP Order was inadequate for justifying the facility as proposed and that the Public Staff did not believe that the WCMP Order directs DEP to build solar in the Asheville region at any cost. Witness Thomas testified that the Public Staff had reviewed the Application and supporting exhibits and had conducted discovery to determine whether the facility meets the public convenience and necessity requirement consistent with N.C. Gen. Stat. § 62-110.1 and Commission Rule R8-63. Witness Thomas then summarized the Public Staff's investigation by concluding that the Public Staff's position was that the Woodfin facility, a solar-only facility with no innovative technologies or energy storage, did not meet the public convenience and necessity requirement, does not provide additional benefits and was not cost effective.

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 the Woodfin Facility's LCOE is substantially above DEP's avoided cost over the same time period, which would result in

a significant premium over DEP's existing power generation and purchase costs to be paid by DEP ratepayers.

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 Woodfin facility. 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 also implied that approval of the Woodfin Solar Facility would mean that customers will be required to pay higher costs to allow more and more municipalities and local governments to achieve renewable energy goals.

Witness Thomas therefore recommended that the Commission reject the Company's application as filed, and he then provided several recommendations by which DEP might revise its application to reduce what he described as a substantial premium that ratepayers would incur. He then testified that the Public Staff options for DEP to consider in order to gain support for the application by the Public Staff included: (1) reducing the amount to be recovered from ratepayers, (2) increasing the amount Buncombe County pays for the renewable energy certificates ("RECs") produced by the facility, and (3) proposing the facility as a community solar facility consistent with the requirements of N.C. Gen. Stat. §62-126.8.

Company witnesses Watson and Beaver, testifying as a panel ("DEP Panel"), filed rebuttal testimony in response to the testimony of Public Staff witness Thomas. The DEP Panel asserted that Public Staff's opposition to the project essentially "moves the goalpost"

by focusing solely on system-level avoided cost as the measuring stick for assessing the public interest rather than assessing the overall benefits of the project within the larger context of the WCMP. The DEP Panel asserted that such an approach is not supported by the terms of the WCMP Order, is not reasonable given the parameters of the Commission's directive in the WCMP, was not identified by any party in the WCMP proceeding as a limiting factor and is not consistent with the "elastic" nature of the public convenience and necessity standard. The DEP Panel further asserted that if the Commission adopts the Public Staff's approach to assessing the project solely on the basis of comparison to current avoided cost, not only will the Woodfin Solar Facility not be constructed, but DEP will be unable to fulfill its commitments and the Commission's express direction in the WCMP Order to construct at least 15 MW of new solar generation at the Asheville Plant site or in the Asheville region.

The DEP Panel testified that the Woodfin 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. The DEP Panel testified that the Woodfin Solar Facility fulfilled both the letter and the spirit of the WCMP Order through a unique partnership with Buncombe County that is broadly supported by the Asheville and Western North Carolina community. With the partnership, DEP identified an ideal site to enable it to build a 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 landfill. The DEP/Buncombe County partnership represents a collaborative and innovative way 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 fact, the DEP Panel testified that Buncombe county staff indicated that the County would be willing to assign a value to the RECs generated on site that would in essence reduce the annual lease obligation on the site to \$0.

The DEP Panel testified that DEP did not believe the WCMP Order directed the Company to build solar in the Asheville region at any cost and that the Company has not taken that position. The DEP Panel acknowledged that the cost of the project as measured on a LCOE basis is higher than current avoided costs and that avoided costs are an important tool to be considered by the Commission.

However, the DEP Panel stated that the Company has taken a comprehensive approach to delivering the Woodfin Solar Facility in the most cost-effective manner given the context and parameters of the WCMP Order, which identified a finite amount of solar to be developed in the Asheville region.

The DEP Panel asserted that 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 the 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.

The DEP Panel testified that the question to be answered in this proceeding is not whether the Woodfin Solar Facility is or is not below current avoided cost, but whether the Company has delivered a reasonably cost-effective project in light of the parameters of the WCMP Order—which the Company asserted it had accomplished through the Woodfin Solar Facility.

The DEP Panel asserted 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. For instance, with respect to the capital cost of the project—which represents almost 90% of the total cost of the project—the Company utilized a competitive procurement process and obtained capital cost bids that are consistent with current market prices. Similarly, the partnership with Buncombe County has allowed the Company to access the site at a below market rate and, assuming formal approval of the amendment, at essentially no cost. Finally, the site identified 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.

In contrast, the most substantial factors contributing to the delta between LCOE and avoided costs are outside of the Company's control. For instance, there has been a substantial drop in avoided cost since the WCMP Order due to numerous complex factors. The DEP Panel asserted that it is certainly appropriate for avoided costs to be updated over time to reflect market realities, but it is not appropriate to back-cast those updated avoided costs in a manner that constrains the ability of the Company to fulfill the directives in the

WCMP Order, particularly given that the Commission itself did not impose such a parameter in its order. Similarly, the tax treatment of the project—namely the requirement that the Company normalize the investment tax credits—is outside of the Company’s control but materially contributes to the LCOE delta for the Woodfin Solar Facility. But as it relates to those factors that are in the Company’s control, the DEP Panel asserted that the Company has delivered a cost-effective project.

The DEP Panel disagreed with Public Staff witness Thomas’s comparison of the LCOE cost of the Woodfin Solar Facility to the purchase power cost of CPRE projects by stating that a smaller, distribution-tied project developed in the Asheville area, or anywhere else in the state for that matter, would not be able to compete with on LCOE basis with a larger CPRE solar project. The substantially 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 Woodfin Solar Facility. The DEP Panel pointed out that none of the winning CPRE projects have been in DEP West.

The DEP Panel testified that utility-scale solar development in DEP West has been very limited compared to other areas of the state. The limited amount of utility-scale solar development in DEP West was confirmed through the Company’s Late-Filed Exhibit, which noted that there is currently only 8.17 MW of operational solar in DEP West.² Of the total, there are only three projects greater than 1 MW and no projects greater than 2 MW. With the exception of one 8 KW project and one 58 KW project, the most recent

² In its Late-Filed Exhibit, the Company acknowledged that Public Staff had relied on a data request response from a different proceeding that was determined to be incorrect. The Company explained the nature of the error, provided a corrected version of the response and apologized for the mistake.

commercial operation date for any of the projects is 2015, and the majority achieved commercial operation in 2012 or earlier under substantially more favorable PPA rates from earlier avoided cost dockets.

The DEP Panel also asserted that because the Woodfin Solar Facility has been proposed in connection with the clearly defined 15 MW target established by the WCMP Order, it is unreasonable to suggest that approval of this particular project will necessarily lead to many other similarly situated partnerships with local governments. But opposing this project on the basis of a vague concern about future local government projects is unreasonable in light of the limited and clearly defined scope of the WCMP Order.

With respect to the three options offered by the Public Staff, the DEP Panel testified that such options were unreasonable and not acceptable. DEP did engage with Buncombe County concerning the Public Staff's recommendations regarding the treatment of the RECs. The DEP Panel testified that Buncombe County was not interested in amending its agreement with the Company and would agree to paying a higher than market value for the RECs. However, Buncombe County and the Company discussed amending the ground lease agreement such that the Company would be able to assign the REC value to equal the assigned land value so effectively the lease rate would be \$0 for the term of the agreement.

Another option offered by the Public Staff was that DEP should forego recovery of the portion of the cost of the facility that exceeded avoided costs (presumably the current Commission authorized avoided cost). The DEP Panel testified that no reasonable investor would make an investment knowing, at the onset, that it would be unable to recover a substantial portion of its investment and therefore DEP could not agree to this option.

The Public Staff also suggested that the Woodfin Facility should be utilized for a community solar program. The DEP Panel testified that under the project structure and lease agreement with Buncombe County, that would not be a viable option as community solar customers have the option to own the RECs produced by the community solar energy facility. For Buncombe County, obtaining RECs is a key component of the lease agreement with the Company, and the County is not willing to forego receipt of the RECs.

The DEP Panel testified that the Woodfin Solar Facility is broadly supported in the community, as reflected in the scores of supportive letters filed in this docket. Notably, considering Public Staff's opposition, two of the intervenors from the underlying WCMP proceeding—MountainTrue and Sierra Club—requested a rescheduling of the public hearing in order to allow further public support for the project to be heard. Buncombe County also filed a second letter in this docket noting that the Woodfin Solar Facility is “part of a complex, broad agreement for future energy generation in a specific region that involved numerous trade-offs by all parties” and that the commitment to 15 MW of solar in the Asheville area was a key part of obtaining community support for WCMP. Buncombe County further noted that it hoped that the Woodfin Solar Facility “can move forward so Buncombe County can begin planning and implementing other elements of our regional clean energy strategy” and that “[d]isapproval of this project would be a major step backwards for our efforts.”

DEP witness Walls testified that, as DEP's government and community relations manager in the Asheville region, he was responsible for engaging with local leaders, customers, community and business groups, and advocacy organizations on all issues involving DEP, including the WCMP and that he had been involved with the WCMP

community stakeholder engagement since its inception. He further testified that there were not many uses for the county's retired landfill, but that a solar facility would allow the entire community to benefit from a clean energy source and that the Woodfin Solar Facility has been cited locally as "win-win" success story.

At the hearing, witness Thomas responded to questions concerning whether the Woodfin Solar Facility should be viewed as part of the overall package of projects approved in the WCMP Order. Viewed in that context, the relatively small cost of the WCMP solar projects is likely to have an immaterial impact on the overall WCMP economics given the substantial cost of the combined cycle units. In fact, Public Staff witness Thomas agreed that when the WCMP solar projects, including the Woodfin Solar Facility, are viewed as a part of the overall WCMP, it is likely that customers are still "better off."

Based on the foregoing, the Commission concludes that the Woodfin Solar Facility is consistent with the public convenience and necessity. N.C. Gen. Stat. § 62-110.1 provides for the orderly expansion of electric generating capacity in order 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 Ass'n*, 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 option 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) (emphasis added). N.C. Gen. Stat. § 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 purchasing power, and the construction 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 Solar Facility.

The Woodfin Solar Facility is consistent with DEP’s 2018 IRP, 2019 IRP Update and 2020 IRP, and no party to this proceeding has contested that finding. With respect to the cost of the Woodfin Solar Facility, the Commission once again confirms the “elastic” nature of the standard of public convenience and necessity and the need to consider the “facts of each case” in reaching a determination. The Company has delivered a project that is reasonably cost-effective in light of the parameters imposed by the Commission. In the particular context of the WCMP, avoided costs are not the sole determinant of the public interest. Solar development in the Asheville area and DEP West has greatly lagged the rest of the state, and the intent of the WCMP Order was to spur further development of renewable resources in the area notwithstanding the fact that such development will naturally be more costly on an LCOE basis than development of larger projects in other areas of the state more conducive to solar development.

With respect to those cost items that are in the Company’s control, the Company has taken reasonable steps to ensure the least impact on customers. In fact, Public Staff

has not identified any aspect of the cost of the Woodfin Solar Facility that the Company has delivered in an unreasonable or imprudent manner. Finally, the Commission finds that the Woodfin Solar Facility will allow the Company to gain further insight regarding how to optimally develop, construct, own, and operate a landfill solar project that will provide potential benefits in the future. The Commission's findings in this respect assume that the Company and Buncombe County amend their lease agreement as discussed herein.

In so finding, the Commission is carefully exercising its authority to ensure prudent investment by DEP in a manner that is in accord with the stated policies of Chapter 62, including the policy set forth in N.C.G.S. § 62-2(a)(10). See N.C.G.S. § 62-2(b). North Carolina General Statute Section 62-2(a)(10) states that one of the policies of the State is to promote the development of renewable energy, including a requirement to diversify the resources used to reliably meet the energy needs of consumers. Consistent with the order in Hot Springs proceeding, the Commission is not granting a "blank check" but instead concludes that the Woodfin Solar Facility reflects the most cost-effective manner of implanting the directives in the WCMP Order to site limited additional solar resources in the Asheville region.

Through the Company's IRP, the Commission takes note of DEP's "arrangements with other electric utilities for interchange of power, pooling of plant, purchase of power and other methods for providing reliable, efficient, and economical electric service" but notes that Woodfin Solar Facility has been proposed in response to the particular directive of the WCMP Order for DEP to site solar facilities in the Asheville area. The Commission further finds that the three recommendations made by the Public Staff have been sufficiently rebutted by the DEP Panel, and that Woodfin Solar Facility will be constructed

at a competitive capital cost and is in the public interest. The Public Staff's vague concerns about future public partnerships and their impacts on customers is not persuasive given the limited 15 MW scope of the directive in the WCMP Order. In fact, given the spirit of the WCMP Order, the Company should be applauded for identifying a collaborative public partnership.

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 Woodfin 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 Woodfin Solar Facility.

ISSUED BY ORDER OF THE COMMISSION.

This the ____ day of _____, 2021.

NORTH CAROLINA UTILITIES COMMISSION

Kimberley A. Campbell, Chief Clerk

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-2, SUB 1257

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

NOW COMES Duke Energy Progress, LLC (“Duke” or the “Company”), by and through counsel, and submits this Post-Hearing Brief (“Brief”) to the North Carolina Utilities Commission (“Commission”) in the above-captioned docket in support of its Proposed Order that is also being filed in parallel with this Brief.

I. Introduction and Summary

In this proceeding, Duke seeks a Certificate of Public Convenience and Necessity (“CPCN”) for the Woodfin Solar Generating Facility (“Woodfin Solar Facility”) in Buncombe County, North Carolina on a landfill owned by Buncombe County. Duke has developed and proposed the Woodfin Solar Facility, as described in its Application for a Certificate of Public Convenience and Necessity to Construct the Woodfin Solar Generating Facility (“Application”) and supporting testimony, in accordance with the requirements of 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 (“WCMP Order”).

The WCMP Order directed the Company 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.”¹ The Woodfin Solar Facility fulfills both the letter and the spirit of the Commission’s WCMP Order through a unique partnership with Buncombe County that enjoys broad community support. The Western Carolinas Modernization Project (“WCMP”) overall, and this public/private partnership with Buncombe County specifically, are part of a collaborative and innovative approach to modernizing the Company’s electric system and developing renewable energy resources in an area of the state that has lagged other areas of the state in terms of renewable generation development. Within that framework, the Company has delivered a project that is both consistent with DEP’s IRP and reasonably priced despite the well-established challenges of developing solar resources in DEP West.

Public Staff’s assessment of the public interest in this proceeding is myopically focused on the measuring stick of current avoided costs and therefore seeks to assess the public interest solely by retroactively applying current avoided costs to a decision issued by the Commission nearly five years ago. Such an approach “moves the goalposts” by essentially ignoring both the greater context of the WCMP and the Commission’s recognition of the “elastic” nature of the public convenience and necessity standard. Because, the Woodfin Solar Facility is consistent with DEP’s IRP and the WCMP Order and reasonably cost-effective given the parameters established under the WCMP Order, the Commission should grant the requested CPCN for the facility.

II. Legal Standard

¹ WCMP Order, at 38.

As the Commission affirmed in its WCMP Order, N.C. Gen Stat. § 62-110.1 “is intended to provide for the orderly expansion of electric generating capacity in order to create a reliable and economical power supply and to avoid the costly overbuilding of generation resources.”² The Commission further affirmed 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.”³

III. Argument

a. The Woodfin Solar Facility is consistent with the public convenience and necessity.

i. The Woodfin Solar Facility is consistent with DEP’s IRP.

The Company’s 2018 Integrated Resource Plan (“IRP”) was filed September 5, 2018 in Docket No. E-100, Sub 157 and includes the Woodfin Solar Facility in the WCMP update sections.⁴ From a total system perspective, DEP’s 2018 IRP identifies the need for approximately 6,300 MW of new resources by 2033 to meet customers’ energy needs. Additionally, the 2018 IRP calls for approximately 1,000 MW of incremental solar installations over the next five years.⁵ The Company also notes that the 2020 DEP IRP, which was filed after the date of the filing of the Application, also includes the Woodfin Solar Facility and, similarly, shows a need for substantial amounts of new generation and

² WCMP Order, at 29-30; *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 Ass’n*, 37 N.C. App. 138, 141, disc. rev. denied, 295 N.C. 646 (1978).

³ *State ex rel. Utils. Comm’n v. Casey*, 245 N.C. 297, 302 (1957) (emphasis added).

⁴ Application at 6, Confidential Exhibit 1A, Tr. 21.

⁵ *Id.*

forecasts substantial amounts of incremental solar.⁶ No party to this proceeding has asserted that the project is not consistent with DEP's IRP. Accordingly, the Commission should find that Woodfin Solar Facility is consistent with DEP's IRP.

ii. The Woodfin Solar Facility is cost-effective given the parameters of the Commission's directive in the WCMP Order and will be a prudent investment in accordance with state policies.

With respect to the actual costs of the project, there is simply no dispute that the Woodfin Solar Facility is cost-effective given the parameters of the Commission's directive in the WCMP Order. The capital costs of the project (*i.e.*, engineering, equipment and construction costs), which represent almost 90% of total project cost, were procured through a competitive process and are consistent with current market prices.⁷ Public Staff has not identified any aspect of the capital cost estimate that is unreasonable or offered any evidence to demonstrate that the Company's estimated capital costs are unreasonable or could have been procured at a lower cost.⁸ Furthermore, Buncombe County has expressed a willingness to work with the Company to revise the lease related to the REC treatment in a way that would essentially reduce the annual lease obligation to no cost (\$0).⁹ There is, therefore, no record evidence to suggest any way in which the Company could have delivered this project at a lower cost.

⁶ To the extent deemed necessary, the Company requests that the Commission take judicial notice of the 2020 IRP in Docket No. E-100, Sub 165 on September 1, 2020 as corrected by filing dated November 6, 2020.

⁷ Tr. 157.

⁸ Public Staff witness Thomas implies (though does not directly assert) that the Woodfin Solar Facility "lacks market discipline" but does not contest that the Company utilized competitive procurement practices for purposes of the capital cost of the project (which constitutes nearly 90% of the cost of the project) or the Company's assertion that the capital costs for the project are, in fact, consistent with market prices.

⁹ Tr. 159-60, 177; *see also* Letter from Buncombe County Board of Commissioners, dated November 10, 2020.

Public Staff’s assessment of cost-effectiveness relies not on an assessment of the capital cost of the project, but instead focuses entirely on a comparison of the levelized cost of energy (“LCOE”) of the Woodfin Solar Facility against current avoided cost—costs that have changed substantially in the nearly five years since the date of the WCMP Order. Yet, Public Staff has not identified any provision from the WCMP Order to suggest that current avoided costs should be used as the sole or even primary measuring stick for assessing cost-effectiveness nor is such a position consistent with the “elastic” nature of the public convenience and necessity. Importantly, the key drivers that cause the Woodfin Solar Facility’s LCOE to exceed current avoided costs are outside of the Company’s control, including (1) a substantial decline in avoided costs since the Commission’s WCMP Order and Public Staff’s decision to retroactively apply current avoided costs, (2) impacts of tax normalization and (3) the higher costs of developing smaller-scale utility-scale solar project in an area of the state that is not conducive to solar development.¹⁰

While avoided cost is an important tool for assessment of customer impact and it is essential that avoided costs be updated over time to reflect market realities, current avoided cost rates should not be dispositive of the public interest in the unique context of the WCMP.¹¹ The question to be answered in this proceeding is not whether the Woodfin Solar Facility is or is not below retroactively-applied current avoided cost, but whether the Company has delivered a reasonably cost-effective project in light of the parameters of the WCMP Order. And the answer to that question is a definitive yes.

¹⁰ Tr. 140-42, 148, 158-59.

¹¹ Tr. 142-43.

Furthermore, there is ample evidence to demonstrate that it is extremely challenging, if not nearly impossible, for any entity to develop utility-scale solar projects in DEP West below current avoided costs.¹² DEP's Late-Filed Exhibit demonstrated the miniscule amounts of solar developed in DEP West as compared with other areas of DEP's service territory. There is currently more than 3,000 MW of solar in DEP¹³ in total but only 8.17 MW of operational utility-scale solar in DEP West.¹⁴ Of the total in DEP West, there are only three projects greater than 1 MW and no projects greater than 2 MW. With the exception of one 8 KW project and one 58 KW project, the most recent commercial operation date for any of the projects is 2015, and the majority achieved commercial operation in 2012 or earlier under substantially more favorable PPA rates from earlier avoided cost dockets (and substantially more favorable than the current avoided costs being retroactively applied by Public Staff in this proceeding). In summary, very little solar was developed in the generally challenging terrain of DEP West even under the older, higher avoided cost rates and, under the more current, lower rates, there has been virtually no new utility-scale solar developed in DEP West.

There was no indication in the WCMP proceeding or the WCMP Order that the Commission intended current avoided costs to be retroactively applied to assess the public interest of the solar commitments made as part of the WCMP, and the clear evidence

¹² DEP Late-Filed Exhibit.

¹³ Application, Exhibit 1A, DEP IRP Update, Pg. 40.

¹⁴ As acknowledged in the Late-Filed Exhibit, an earlier data request response submitted in connection with a separate docket contained an error regarding the location of a particular solar facility. Public Staff witness relied on such incorrect data request in testifying in this proceeding concerning the amount of solar generation in DEP West. DEP provided a corrected version of the earlier data request response and the DEP Late-Filed Exhibit accurately identifies the amount of utility-scale solar in DEP West. The Company apologizes for the error.

demonstrates that it is very challenging to develop utility-scale solar in DEP West at current avoided costs.¹⁵ In fact, as the Company's witnesses have made clear, retroactive application of current avoided costs as the sole determinant of public interest will essentially result in no further solar development under the WCMP.¹⁶

Once again, the Company has worked diligently to deliver the most cost-effective project possible under the circumstances. Consistent with the Commission's guidance in the Hot Springs proceeding, the Company has not approached the Woodfin Solar Facility assuming a "blank check,"¹⁷ but instead has worked diligently to drive down the costs of the project, including through leveraging both competitive procurement practices and the Company's collaborative relationship with Buncombe County to obtain a unique site opportunity at no cost. In light of all of these factors, the Woodfin Solar Facility does, in fact, constitute a prudent investment in accordance with the stated policies of Chapter 62,¹⁸ including the policy set forth in N.C. Gen. Stat. § 62-2(a)(10).¹⁹

iii. The Woodfin Solar Facility is consistent with WCMP Order, should be viewed as one component of the overall WCMP and has broad public support.

In addition to the fact that the Woodfin Solar Facility is consistent with the DEP's IRP and reasonably cost-effective given the parameters of the WCMP Order, the Woodfin Solar Facility should also be found to be in the public interest because it is consistent with

¹⁵ Tr. 142-43.

¹⁶ Tr. 139-40.

¹⁷ *Order Granting Certificate of Public Convenience and Necessity with Conditions*, Docket No. E-2, Sub 1185 (May 10, 2019) ("Hot Springs Order") at 16.

¹⁸ N.C. Gen. Stat. § 62-2(b).

¹⁹ Hot Springs Order, at 16.

the letter and spirit of the WCMP Order. Once again, the WCMP Order directed the Company to develop solar projects of a particular size and in a particular area of the state that is not conducive to solar development.²⁰ That directive was one part of a larger WCMP initiative approved by the Commission, pursuant to which the Company charted a collaborative course to modernizing the region's electricity supply through the retirement of older coal units, replacement with a combination of natural gas, solar, and battery, and innovative and aggressive energy efficiency and demand side management efforts.²¹ The WCMP Order memorializes the strong community support for the 15 MW of solar and the desire of many to expand such resources.²²

As was discussed during the hearing, it is entirely appropriate to view the Woodfin Solar Facility as one component of the overall "package" of the WCMP. Viewed in that context, the relatively small cost of the WCMP solar projects likely has an immaterial impact on the overall WCMP economics given the substantial cost of the combined cycle units.²³ In fact, Public Staff witness Thomas agreed that when the WCMP solar projects, including the Woodfin Solar Facility, are viewed as a part of the overall WCMP, it is likely that customers are still "better off."²⁴

Further, "collaboration" was a key concept in the WCMP Order, and the Commission expressly commended "the work that DEP has begun in engaging Asheville

²⁰ Tr. 138-39.

²¹ Tr. 135-36.

²² WCMP Order at 14.

²³ Tr. 88-92.

²⁴ Tr. 92, Lines 4-18.

community leaders to work collaboratively on load reduction measures.”²⁵ In this vein, the Woodfin Solar Facility is a near-perfect distillation of the spirit of the WCMP Order in that the Company has partnered with Buncombe County to locate the project in a manner that reduces costs to customers (through a ground lease that, after revision, is effectively \$0) and allows the Company to gain experience building and operating a solar facility on a closed landfill.²⁶ Public Staff somewhat bizarrely appears to view the public/private partnership as a negative based on a vague though unsubstantiated fear of more such public/private partnerships.²⁷ Such an unfounded fear should be ignored given the limited 15 MW scope of the solar to be developed under the WCMP Order.²⁸ The collaborative nature of the Woodfin Solar Facility will also allow the Company to gain valuable experience in designing, constructing and operating solar facility on a closed municipal landfill and for such experience to be beneficial in considering any future solar projects on closed municipal landfills.

The Company’s witnesses testified regarding their first-hand knowledge of the community’s support of the Woodfin Solar project,²⁹ support which is confirmed by the nearly 200 letters of support submitted in the docket. Letters in support of the Woodfin Solar Facility have been filed by the North Carolina Sustainable Association, the Western North Carolina Renewables Coalition, MountainTrue, the Western North Carolina Sierra Club, the Southern Environmental Law Center, the Mayor of the City of Asheville, North

²⁵ WCMP Order, at 38.

²⁶ Tr. 136-37.

²⁷ Tr. 58.

²⁸ And should the Company identify any future public/private partnerships, the Commission will be free to assess such projects on their own merits.

²⁹ Tr. 182-89.

Carolina and the Buncombe County Commission. Buncombe County specifically observed that the Woodfin Solar Facility is “part of a complex, broad agreement for future energy generation in a specific region that involved numerous trade-offs by all parties” and that the commitment to 15 MW of solar in the Asheville area was a key part of obtaining community support for WCMP.³⁰

b. Public Staff applies an “inelastic” public convenience and necessity standard but fails to identify any aspect of the project that has been developed in an unreasonable or imprudent manner.

Public Staff’s opposition to the Woodfin Solar Facility appears to rest almost entirely on the fact that the project’s LCOE exceeds current avoided costs. This approach could be fairly characterized as “inelastic” and inconsistent with the Commission’s well-established standard of public convenience and necessity. Public Staff’s testimony appeared to place virtually no weight on the broader context of the WCMP Order or the parameters imposed on the Company’s solar development in such order. Such myopic focus on current avoided cost is simply not consistent with the WCMP Order or the Commission’s well-established precedent concerning the public convenience and necessity.

Furthermore, what is missing from Public Staff’s testimony is any assertion that there is any aspect of the Woodfin Solar Facility that has been developed in an unreasonable or imprudent manner or that there is any particular step that the Company could have taken to reduce the cost of the project (other than simply asking Buncombe County to pay more). As discussed above, with respect to the actual cost of the project,

³⁰ Tr. 159-60, 177; *see also* Letter from Buncombe County Board of Commissioners, dated November 10, 2020.

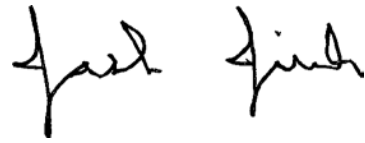
the Company is confident that it has delivered a reasonably-priced project and has further demonstrated that those factors that are primarily impacting the LCOE relative to current avoided cost are all outside of the control of the Company.

IV. Conclusion

DEP is proud of the proposed Woodfin Solar Facility and believes that this unique partnership with Buncombe County is a nearly perfect manifestation of the intent behind the WCMP as approved by the Commission, which is reflected in the scores of supportive letters filed in this docket from a wide range of individuals, groups and governmental organizations. Because the project is consistent with the IRP and the state's energy policies and fulfills the Commission's vision in its WCMP Order at a prudent and reasonable cost in light of the parameters, the Commission should find the Woodfin Solar Facility to be in the public interest and grant the Company's request for a Certificate of Public Convenience and Necessity.

WHEREFORE, for all of the reasons set forth herein, the Company respectfully requests that the Commission adopt the Company's Proposed Order filed in parallel with this Brief and thereby grant the Company's Application.

Respectfully submitted, this the 19th day of January, 2021.



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