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May 15, 2023

VIA ELECTRONIC FILING

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

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

Dear Ms. Dunston:

Please find enclosed the Rebuttal Testimony of Justin LaRoche, on behalf of Duke Energy Progress, LLC ("DEP"), in the above-referenced proceeding. The Rebuttal Testimony contains confidential pricing information, which is exempt from public disclosure and is being filed under seal, pursuant to N.C. Gen. Stat. § 132-1.2. Parties to the docket may contact DEP's undersigned counsel regarding obtaining copies pursuant to a confidentiality agreement.

If you have any questions regarding any of the above information, please let me know.

Sincerely,

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

Jason A. Higginbotham

Enclosure

cc: Parties of Record

May 15 2023

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. E-2, SUB 1311

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

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

**REBUTTAL TESTIMONY OF
JUSTIN LAROCHE**



1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Justin LaRoche, and my business address is 525 South Tryon Street,
3 Charlotte, North Carolina 28202.

4 **Q. DID YOU PREVIOUSLY FILE DIRECT TESTIMONY IN THIS**
5 **PROCEEDING?**

6 A. Yes.

7 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

8 A. The purpose of my rebuttal testimony is to respond to the Direct Testimony of
9 Public Staff – North Carolina Utilities Commission witness Jeff Thomas, which
10 was filed in response to Duke Energy Progress, LLC’s (“DEP” or the
11 “Company”) Application for a Certificate of Public Convenience and Necessity
12 (“CPCN”) to construct the Asheville Plant Solar Facility (“Asheville Facility”
13 or “Facility”) in Buncombe County, North Carolina (“CPCN Application”).
14 My rebuttal testimony also provides an update to the projected in-service date
15 for the Asheville Facility.

16 **Q. WHAT IS YOUR GENERAL REACTION TO MR. THOMAS’ DIRECT**
17 **TESTIMONY?**

18 A. Mr. Thomas recommends that the Commission only approve the CPCN
19 Application if the Commission continues to believe that the need for the
20 Western Carolinas Modernization Project (“WCMP”) also establishes the need
21 for the Asheville Facility. In making this recommendation, Mr. Thomas
22 acknowledges that adding the Asheville Facility to the portfolio of projects
23 under the WCMP will not materially impact the levelized cost of energy

1 (“LCOE”) for the WCMP or cause the WCMP’s LCOE to be greater than
2 DEP’s avoided costs. However, he does not believe that DEP has sufficiently
3 demonstrated a standalone need for the Asheville Facility. While I agree that
4 the addition of the Asheville Facility to the WCMP portfolio will not materially
5 impact the economics of the WCMP, I disagree that the need for the project is
6 supported only by a general finding of need for the WCMP.

7 **Q. WHAT OTHER FACTORS SHOULD THE COMMISSION CONSIDER**
8 **IN DETERMINING WHETHER THERE IS A NEED FOR THE**
9 **PROJECT?**

10 A. The Commission should consider the overwhelming public support DEP has
11 received for each of the renewable energy projects the Company has proposed
12 in the Asheville region. DEP conceptualized the WCMP in response to
13 significant community and stakeholder engagement through which DEP
14 learned that its customers in the DEP-West region strongly support the addition
15 of renewable energy resources to serve their communities. Like the other
16 renewable energy projects the Company has proposed under the WCMP,
17 members of the Asheville community support the construction of the Asheville
18 Facility. This is evident by the letters of support that have been filed by various
19 individuals and organizations in this docket.

20 **Q. ARE YOU AWARE OF ANY PUBLIC OPPOSITION TO THE**
21 **CONSTRUCTION OF THE ASHEVILLE FACILITY?**

22 A. No. In fact, in its February 2, 2023 *Order Scheduling Hearings, Requiring*
23 *Filing of Testimony, Establishing Procedural Guidelines, and Requiring Public*

1 *Notice*, the Commission reserved its right to cancel the public witness hearing
2 in this proceeding if no substantial written complaints were received by the
3 Commission by March 24, 2023. No such complaints were filed. Therefore,
4 after conferring with the Public Staff, DEP filed a Motion to Cancel the April
5 5, 2023 Public Witness Hearing, and the Commission granted DEP's Motion.
6 Further, no members from the public or parties with standing expressed
7 opposition to the Facility at the Buncombe County Board of Adjustment (the
8 "Board") hearing held on May 10, 2023, in which the Board unanimously
9 approved a Special Use Permit for the Facility.

10 **Q. WHAT OTHER FACTORS SHOULD THE COMMISSION CONSIDER**
11 **IN ITS ANALYSIS OF THE ASHEVILLE FACILITY?**

12 A. The Commission should also consider the challenges of siting a utility-scale
13 solar generation facility, such as the Asheville Facility, in the DEP-West region.
14 The topography and relatively few parcels that can accommodate industrial
15 installations limit the number of locations where a large solar facility can be
16 sited. This is evident by the limited number of existing solar facilities in the
17 region.

18
19 DEP's proposal to site the Asheville Facility on land that has already been
20 cleared, is not adjacent to residential customers, and will make use of existing
21 infrastructure for required interconnections is a significant accomplishment
22 given the limited number of options in the Asheville region. The Asheville
23 Plant site is also zoned for industrial purposes, and DEP has received the

1 required zoning permit approval to construct the Facility from Buncombe
2 County. In addition, construction and operation of the Asheville Facility will
3 allow DEP to build upon the learnings from its operation of the other solar
4 facilities it has constructed in the DEP-West Region.

5 **Q. MR. THOMAS COMPARES THE PROJECTED COSTS OF THE**
6 **ASHEVILLE FACILITY TO OTHER SOLAR PROJECTS IN THE**
7 **SOUTHEAST REGION OF THE U.S. HOW DO YOU RESPOND TO**
8 **THESE COMPARISONS?**

9 A. Given the siting challenges I previously described, I do not believe it is
10 reasonable to compare the projected costs of the Asheville Facility with projects
11 in other parts of the country, where land may be acquired at a lower cost and
12 utility infrastructure may be more readily accessible, or to projects of larger size
13 and different racking type (i.e., single axis tracking facilities). As I stated in
14 my direct testimony, the WCMP Order required DEP to site a solar generating
15 project in an area of North Carolina that is not conducive to the lowest cost
16 solar. As a result, a more reasonable comparison would be between the
17 projected costs of the Asheville Facility and other solar projects in the Asheville
18 region or other regions with similar geographical challenges.

19 **Q. MR. THOMAS ALSO COMPARES THE PROJECTED LCOE FOR**
20 **THE ASHEVILLE FACILITY TO THE SOLAR REFERENCE AND**
21 **AVOIDED COSTS IN THE DEP AND DUKE ENERGY CAROLINAS,**
22 **LLC’S (“DEC” AND TOGETHER WITH DEP, THE “COMPANIES”)**

1 **ONGOING SOLAR PROCUREMENTS. HOW DO YOU RESPOND TO**
2 **THESE COMPARISONS?**

3 A. Again, I believe that these are not reasonable comparisons. The LCOE for the
4 Asheville Facility reflects the costs of siting a solar facility in a challenging
5 location whereas the Solar Reference and Avoided Costs are benchmarks that
6 are used to assess proposals from solar developers to construct facilities in a
7 competitive process, which are often being constructed at up to 80.0 MWac. In
8 addition, the Companies' ongoing solar procurements are being conducted
9 pursuant to legislation that prescribes specific requirements for how the
10 Companies must acquire those resources. DEP does not believe those same
11 requirements apply to the Commission's directives in the WCMP Order.

12 **Q. DO YOU AGREE WITH ALL THE LCOE CALCULATIONS**
13 **PROVIDED IN MR. THOMAS' DIRECT TESTIMONY?**

14 A. No. Mr. Thomas identifies the LCOE for the 2026 Solar Investment Project
15 included in DEP's multi-year rate plan ("MYRP") in Docket No. E-2, Sub 1300
16 as [BEGIN CONFIDENTIAL] [REDACTED] [END CONFIDENTIAL]. It
17 appears that this figure is based on DEP's response to discovery propounded by
18 Public Staff in the MYRP proceeding, which DEP served on the Public Staff in
19 November 2022. However, on February 13, 2023, I submitted supplemental
20 direct testimony in the MYRP proceeding which included revised cost estimates
21 for both the 2026 Solar Investment Project and the Asheville Facility. The
22 revised cost estimate for the 2026 Solar Investment Project yields an LCOE for
23 the facility of [BEGIN CONFIDENTIAL] [REDACTED] [END

1 **CONFIDENTIAL**]. DEP also provided supplemental workpapers to the
2 Public Staff in connection with the February 13 supplement, which provided
3 the updated LCOE for the 2026 Solar Investment Project.

4 **Q. WHAT IS YOUR RESPONSE TO MR. THOMAS' STATEMENT THAT**
5 **THE ASHEVILLE FACILITY DOES NOT MEANINGFULLY ADD**
6 **SOLAR IN DEP'S SERVICE TERRITORIES IN LIGHT OF THE**
7 **COMPANIES ONGOING SOLAR PROCUREMENTS?**

8 A. I believe Mr. Thomas' observation incorrectly conflates the WCMP and the
9 Companies' overall solar procurement efforts. While it is true that the
10 Companies are aggressively procuring solar in response to projected resource
11 needs and legislative mandates, the purpose of the WCMP is to modernize DEP-
12 West by replacing older, carbon-emitting resources with newer technologies
13 that will facilitate the energy transition in the region. While the Asheville
14 Facility may add a relatively small amount of incremental solar generation in
15 comparison to the Companies' system-wide procurement, it is still a meaningful
16 addition to the portfolio of renewable energy resources that will serve the
17 Asheville region.

18 **Q. MR. THOMAS TESTIFIES THAT CONSTRUCTION OF THE**
19 **ASHEVILLE FACILITY IS INCONSISTENT WITH THE**
20 **OBJECTIVES OF S.L. 2021-165, SECTION 5 ("HB 951") BECAUSE HB**
21 **951 REQUIRES SOLAR TO BE PROCURED IN THE LEAST-COST**
22 **MANNER. HOW DO YOU RESPOND?**

1 A. DEP is not proposing to construct the Asheville Facility to comply with HB 951
2 but rather for the reasons I have previously identified, including to fulfill the
3 Company's commitments under the WCMP Order. Furthermore, DEP believes
4 it is taking steps to ensure that construction of the Asheville Facility is
5 performed in a least-cost manner. As I described in my direct testimony, the
6 Company plans to issue requests for proposal to competitively source the
7 engineering, procurement, and construction and major equipment to execute the
8 project as cost-effectively as possible for customers.

9 **Q. WHAT IS YOUR RESPONSE TO MR. THOMAS' STATEMENT THAT,**
10 **ABSENT THE WCMP, DEP WOULD LIKELY PROCURE LESS**
11 **EXPENSIVE SOLAR IN ITS EASTERN REGION?**

12 A. While I agree that it is currently less expensive to procure solar resources in
13 DEP's eastern region than in DEP-West, I cannot agree with Mr. Thomas'
14 hypothetical statement because it assumes that cost will always be the primary
15 driver for a resource siting decision. The WCMP seeks to address the dearth of
16 renewable energy generation in the western region due to the relatively higher
17 costs and siting challenges associated with installing solar facilities in the area.
18 DEP's proposal to construct the Asheville Facility recognizes that customers in
19 DEP-West desire to be included in the energy transition notwithstanding the
20 region's geographical limitations. DEP has made a concerted effort to identify
21 the most viable locations to site its proposed renewable energy projects in DEP-
22 West, including the Asheville Facility.

1 **Q. DOES MR. THOMAS IDENTIFY ANY BENEFITS OF THE**
2 **ASHEVILLE FACILITY?**

3 A. Yes. Mr. Thomas acknowledges that the Facility may qualify for increased tax
4 benefits under the Inflation Reduction Act because the Facility will be
5 constructed in an “energy community.” Mr. Thomas also acknowledges that
6 the Facility will make use of existing transmission infrastructure, which will be
7 shared by the Lake Julian battery energy storage system.

8 **Q. HOW DO YOU RESPOND TO MR. THOMAS’ ANALYSIS OF**
9 **HISTORICAL AND PROJECTED LOAD IN DEP-WEST?**

10 A. I agree with Mr. Thomas’ conclusions and believe his analysis further
11 demonstrates the need for additional resources in DEP-West, such as the
12 Asheville Facility. Based on information DEP provided to the Public Staff in
13 discovery, Mr. Thomas found that there is a trend of increasing peaks and
14 energy consumption over time in DEP-West. Mr. Thomas also compared
15 winter and summer peak load growth in DEP-West to the DEP region as a
16 whole and found that the DEP-West summer and winter peaks are growing
17 significantly faster than the DEP region as a whole.

18 **Q. DO YOU AGREE WITH MR. THOMAS THAT CONSOLIDATED**
19 **SYSTEMS OPERATIONS AND A FUTURE MERGER OF THE**
20 **COMPANIES MAY ADDRESS SOME OF THE CHALLENGES OF**
21 **DELIVERING POWER TO THE DEP-WEST REGION?**

22 A. While I do not disagree with Mr. Thomas’ statement, I believe it is premature
23 to opine on the potential impact of consolidated system operations (“CSO”) or

1 a utility merger on future resource needs. These are system-wide efforts that
2 may take years to accomplish and will impact modeling inputs and assumptions
3 used to generate future resource plans. In addition, even if CSO or a utility
4 merger did reduce the cost of importing power into DEP-West, the
5 Commission's directive in the WCMP Order to *site* up to 15 MW of solar in the
6 Asheville region would remain.

7 **Q. MR. LAROCHE, WOULD YOU LIKE TO UPDATE ANY OF THE**
8 **INFORMATION PROVIDED IN YOUR DIRECT TESTIMONY**
9 **REGARDING THE ASHEVILLE FACILITY?**

10 A. Yes. In my Direct Testimony, I stated that the Asheville Facility would be
11 placed in service in September 2025. However, on April 26, 2023, DEP and
12 the Public Staff entered into an Agreement and Stipulation of Partial Settlement
13 (“Stipulation”) in Docket No. E-2, Sub 1300 – DEP’s Application to Adjust
14 Retail Base Rates and for Performance-Based Regulation, and Request for an
15 Accounting Order. Under the Stipulation, DEP and the Public Staff agreed to
16 modify the in-service date for the facility from September 2025 to March 2026.

17 **Q. DOES THIS CONCLUDE YOUR PRE-FILED REBUTTAL**
18 **TESTIMONY?**

19 A. Yes.

CERTIFICATE OF SERVICE

I certify that a copy of Duke Energy Progress, LLC's Rebuttal Testimony, 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 15th day of May, 2023.



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