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March 29, 2021

### **VIA ELECTRONIC FILING**

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

RE: Duke Energy Progress, LLC Western Carolinas Modernization Project Final

**Progress Report and Annual Community Engagement Report** 

Docket No. E-2, Sub 1089

Dear Ms. Campbell:

Pursuant to the Commission's March 28, 2016 Order Granting Application in Part, with Conditions, and Denying Application in Part (the "Order"), I enclose the Final Progress Report of Duke Energy Progress, LLC ("DEP") for the two 280 MW combined cycle natural gas-fueled, with fuel oil backup, electric generating units at the Company's Asheville Steam Electric Generating Plant in Buncombe County, for filing in connection with this matter. In compliance with ordering paragraph No. 5 of the Order, DEP reports on the progress of construction activities and the current cost estimate. In compliance with ordering paragraph No. 6 of the Order, DEP reports accomplishments to date on efforts to work with customers in the Western Region to reduce peak load through demand-side management, energy efficiency and other measures and on DEP's efforts to site solar and storage capacity in the Western Region. DEP will continue to update the Commission on community engagement efforts until DEP has met its commitment to build at least 15 MW of solar generation and 5 MW of storage capacity.

Thank you for your attention to this matter. If you have any questions, please let me know.

Sincerely,

Lawrence B. Somers

Enclosure

cc: Parties of Record

Duke Energy Progress, LLC
Western Carolinas Modernization Project
Final Progress Report for the Asheville Combined Cycle Project
Annual Report on Community Engagement for Demand-Side Management,
Energy Efficiency and Technology
Docket No. E-2, Sub 1089
March 29, 2020

### I. Construction

The Asheville Combined Cycle Project ("ACC Project") is a nominal 560 MW dual-fuel generation facility construction project comprised of two separate 1x1 combined cycle units (280 MW each) as a component of the larger Western Carolinas Modernization Project ("WCMP"). Progress on the ACC Project over the past year has focused on contract execution, completion of engineering, procurement activities, permitting activities, and construction of the plant. The facility was turned over to the Regulated and Renewable Energy department and placed in-service.

On August 3, 2016, Duke Energy Progress, LLC ("DEP") executed an Engineering, Procurement and Construction ("EPC") Agreement with CB&I North Carolina, Inc. ("CB&I") to design, engineer, procure balance of plant equipment, and construct the new generating facility, including incorporation and installation of DEP furnished major equipment (turbines, heat recovery steam generators, generator step-up transformers, and control systems). In 2018, CB&I was acquired by McDermott. McDermott will fulfill the original CB&I contract requirements. A summary of key project milestone dates, including their current status are provided in Attachment A to this report.

At this point in time, the project's cost at completion is forecasted to be within the previously authorized and stated \$893.2 million. This authorized estimate value includes all required engineering, procurement, construction, and commissioning costs as well as required oversight costs from DEP as owner, transmission interconnection costs, and allowance for funds used during construction. Project contract closure negotiations continue with the EPC contractor as well as the combustion and steam turbine supplier.

The Power Block 1 generation assets of the ACC went into commercial operation on December 27, 2019. As previously reported to the Commission, during commissioning activities for the Power Block 2 generation assets, issues were detected which required repairs by the manufacturers and resulted in delays. The Power Block 2 combustion turbine generator Unit 7 (CTG07) was declared commercial using natural gas only as fuel on January 15, 2020. On April 5, 2020, the Unit 8 Steam Turbine Generator of Power Block 2 of the ACC went into commercial operation. The necessary work to enable the Power Block 2 Combustion Turbine Unit 7 to operate on fuel oil was completed on May 11, 2020.

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The EPC contractor, McDermott, continues to work towards completion of five required punch list items to declare EPC Final Completion. The existing Asheville coal plant was retired on January 29, 2020, meeting the requirements as outlined in the Mountain Energy Act (to retire the Asheville coal station by January 31, 2020).

### II. Community Engagement for Demand-Side Management and Energy Efficiency

In 2016 a group of local leaders, representing the City of Asheville, Buncombe County and Duke Energy, attended the Rocky Mountain Institute's eLab Accelerator to outline a community engagement effort to increase demand-side management, energy efficiency and distributed energy resources locally. From this grew the Energy Innovation Task Force ("EITF"). The EITF was formed in 2016, comprised of a diverse group of community leaders to:

- 1. Avoid or delay the construction of the planned contingent CT.
- 2. Transition DEP-West to a smarter, cleaner and affordable energy future.

As highlighted in Duke Energy Progress' 2018, 2019, and 2020 Integrated Resource Plans, in part through this community collaboration in Buncombe County, the contingent CT has been pushed out beyond the mid-2030s. One of the key strategies of the EITF was the formation of the Blue Horizons Project, an outward facing marketing/engagement effort to connect with customers.

Throughout 2019, the conveners of the EITF worked to redefine the future goal and purpose of the task force. The EITF dissolved in 2019 but was recast as the Blue Horizons Project Community Council ("BHPCC"). The purpose of this council is to drive behavior and investments that help achieve the community renewable energy goal.

2020 was a transitional year for this work. With impacts on in-person meetings and engagements due to the COVID-19 Pandemic, the transition to the BHPCC was delayed. This group formed and started meeting in late 2020 and now holds monthly meetings. Duke Energy Progress is a member of the BHPCC.

The focus of the BHPCC is to help advance the City of Asheville and Buncombe County's respective goals to achieve the 100 percent renewable targets for operations by 2030, and for all homes and businesses by 2042.

This is in addition to keeping a keen eye toward further reduction in peak demand, as the city and county continue to grow.

# Duke Energy Progress, LLC

### Western Carolinas Modernization Project

Final Progress Report for the Asheville Combined Cycle Project Annual Report on Community Engagement for Demand-Side Management,

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### III. Technology: Solar, Storage, Microgrid Development

To that end, our commitments to fully leverage technology to help achieve these goals is steadfast. Below is a discussion of those commitments and continued development.

### Project Update:

- 1. Mt. Sterling Microgrid (Docket No. E-2, Sub 1127)
  - Haywood County
  - Approximate Capacity 10 kW Solar PV and 95 kWh Battery Storage Facility
  - NCUC Order Granting CPCN April 2017
  - Completion Date May 2017
- 2. Asheville Rock Hill Battery
  - Buncombe County
  - Sited at utility-owned substation
  - Approximate Capacity 9 MW Battery Storage Facility
  - In-Service Date August 2020
- 3. Hot Springs Microgrid (Docket No. E-2, Sub 1185)
  - Madison County
  - Approximate Capacity 2 MW Solar PV and 4 MW Battery Storage Facility
  - NCUC Order Granting CPCN May 2019
  - Anticipated In-Service Date 2021
- 4. Woodfin Solar (Docket No. E-2, Sub 1257)
  - Buncombe County
  - Approximate Capacity 5 MW Solar PV
  - CPCN Filing July 2020 (NCUC order is pending)
  - Anticipated In-Service Date 2021
- 5. Riverside Battery
  - Buncombe County
  - Sited at utility-owned substation
  - Approximate Capacity 5 MW Battery Storage Facility
  - Anticipated In-Service Date 2022
- 6. Asheville Solar and Battery
  - Buncombe County
  - Sited at utility-owned CC plant

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- Approximate Capacity 9 to 10 MW Solar PV and 17 to 18 MW Battery Storage Facility
- Anticipated In-Service Date 2024
- 7. Craggy Battery
  - Buncombe County
  - Sited at utility-owned substation
  - Approximate Capacity 25 MW Battery Storage Facility
  - Anticipated In-Service Date 2026

DEP's current pipeline of solar and storage projects in the western region shown above will allow the Company to meet the Commission's order to deploy at least 15 MW of new solar generation and 5 MW of utility-scale storage.

Located at one of the highest peaks in the Great Smoky Mountains National Park, the Mt. Sterling Microgrid continues to power communication equipment for rangers in remote areas of the park. The battery cells were refreshed in 2020, ensuring the microgrid will provide reliable, clean power for years to come. In the City of Asheville, the approximately 9 MW Asheville Rock Hill Battery was placed in-service last year and is operating next to a DEP substation. The project is primarily used to help the electric system operate more efficiently through frequency regulation and other grid support services. It will also enable additional renewable energy in region and is the Company's largest battery in North Carolina.

The Hot Springs Microgrid (approximately 2 MW solar and 4 MW storage) began construction in 2020 and is planned to be in-service before the end of 2021. Critical learnings continue to be uncovered through the interconnection process that will pave the way for future microgrids. The Woodfin Solar facility (approximately 5 MW) is currently under NCUC review and will be key to meeting the WCMP order, given the challenges of adding solar generation in this part of the service area.

As summarized above, the Company continues to develop multiple solar and storage facilities planned on Company-owned land in Buncombe County. These projects are in various stages of the generator interconnection process. The Company is also considering a full range of options, including non-wires alternatives such as solar and storage, when grid needs are identified through the integrated systems and operations planning ("ISOP") framework, further demonstrating the benefits of distributed energy technologies in DEP's western region.

# Duke Energy Progress, LLC Western Carolinas Modernization Project Final Progress Report for the Asheville Combined Cycle Project Annual Report on Community Engagement for Demand-Side Management, Energy Efficiency and Technology Docket No. E-2, Sub 1089 March 29, 2020

## **ATTACHMENT A**

# **Project Milestone Dates – Final Construction Report**

| Milestone                                                                | EPC Baseline (Nov. 2017) | Completion Date |
|--------------------------------------------------------------------------|--------------------------|-----------------|
| Receipt of Air Permit                                                    | 01/09/2017               | 01/09/2017      |
| 82 Basin Dam                                                             | 10/31/2017               | 11/29/2017      |
| Decommissioning                                                          |                          |                 |
| Site Prep/Fill Completion                                                | 10/31/2017               | 12/06/2017      |
| Full Notice to Proceed (FNTP) to EPC                                     | 10/23/2017               | 10/23/2017      |
| Transmission Complete for Backfeed                                       | 01/01/2019               | 04/03/2019      |
| Backfeed                                                                 | 02/16/2019               | 04/28/2019      |
| EPC Contractor Mechanical                                                | 06/15/2019               | 11/26/2019      |
| Completion                                                               |                          |                 |
| Commercial Operation Date<br>(Power Block 1, 280 MW)                     | 11/15/2019               | 12/27/2019      |
| Commercial Operation Date<br>(Power Block 2 CTG07 (gas),<br>180 MW)      | 11/15/2019               | 1/15/20         |
| Commercial Operation Date<br>(Power Block 2 CTG07 (fuel<br>oil), 180 MW) | 11/15/2019               | 5/11/20         |
| Commercial Operation Date<br>(Power Block 2 STG08, 100<br>MW)            | 11/15/2019               | 4/5/20          |

### CERTIFICATE OF SERVICE

I certify that a copy of Duke Energy Progress, LLC's Final Progress Report and Annual Report on Community Engagement, in Docket No. E-2, Sub 1089, has been served by electronic mail, hand delivery or by depositing a copy in the United States mail, postage prepaid to the following parties:

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This the 29<sup>th</sup> day of March, 2021.

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