BEFORE THE NORTH CAROLINA UTILITIES COMMISSION DOCKET NO. E-2, SUB 1089

| In the Matter of: |) | |
|-------------------------------------|---|-------------------------------------|
| Application of Duke Energy |) | |
| Progress, LLC for a Certificate of |) | 2 nd ADDITIONAL COMMENTS |
| Public Convenience and Necessity to |) | OF BRAD ROUSE |
| Construct a 752 Megawatt Natural |) | |
| Gas-Fueled Electric Generation |) | |
| Facility in Buncombe County Near |) | |
| the City of Asheville |) | |

Brad Rouse's 2nd Additional Comments

Having intervened in this proceeding, I am submitting these 2nd additional comments so that they may be considered by the North Carolina Utilities Commission (Commission) as it reviews the Application for Certificate of Public Convenience and Necessity and Motion for Partial Waiver of Commission Rule R8-61("Application") filed by Duke Energy Progress, LLC (DEP) on January 15, 2016.

I hereby submit, for the Commission's consideration, my response to DEP's reply to my "Additional Comments" filed with the Commission February 25, 2016:

- (1) DEP's reply does not address the central thesis of my argument, which is that Commission should guide DEP to choose the minimum plant size possible to meet the needs for reliability in WNC because of the tumultuous times facing the industry. The rapid cost reductions for renewable energy, combined with the growing global realization that we must move to a fossil fuel free future, create great potential risks for new investments in fossil fuel capacity.
- (2) I agree with DEP's assertion that my argument for smaller sized units did not consider cost, efficiency, and some, but not all, reliability issues. My comments were aimed at demonstrating that such smaller units were a **feasible** solution. DEP's reply indicates that they agree with my assertion that smaller units are **feasible**. I had recommended that (given the requirement that the Commission make a decision by March 1) the Commission approve the smaller unit size and give DEP the opportunity to make a more complete justification of their decision to go with the larger 280 MW unit size.
- (3) DEP's reply provides additional needed justification regarding the recommended larger unit size. DEP asserts that a cursory review shows that one smaller unit size alternative (GE 185 MW Ixl 7EA) would appear to have additional capital cost of 20% and lower efficiency of 20%. These differences reflect significant economies of scale, and if these economies were to be confirmed and if no other more promising smaller alternative were to emerge, they would be compelling

- evidence for building the larger unit size. The hard deadline of March 1 in this proceeding seems to preclude such confirmation and independent verification, however.
- (4) DEP also asserts a system need for 526 MW based on the 2012 and 2014 IRPs. These IRPs included the additional fast start CT capacity in 2018/2019 and the 379 MW Asheville coal units. In the 2015 IRP this capacity is moved out to 2020 and is needed to meet summer peak reserve margin of 17%, but not needed to meet the 2014 IRP reserve margin of 14.5%. The decision to go from 14.5% to 17% reserve margin, a difference of 347 MW IN 2020, does not appear to have been sufficiently vetted outside Duke. Using the 2014 IRP reserve margin, the larger CC unit size would not seem to be needed to meet summer peak system requirements until after 2021.
- (5) From a WNC perspective, DEP's reply seems to agree with my comments that the larger unit size is not needed in order to satisfy the NERC reliability standard presented in Exhibit 1B, Table 1 of the application. Table 1 also incorporates planned load growth in WNC, so by implication the larger units are not needed to meet planned load growth. DEP's reply asserts that the larger units are instead needed because insufficient WNC based capacity exists to mitigate the risk of rotating blackouts, but this assertion is not quantified in the non-confidential portion of the application.
- (6) DEP's reply asserts that because they would need to build three 185 MW CC units to meet the 526 MW shortfall in (4) and that this would cost \$150 million in addition to the current plan. If one accepts all of their assumptions including the 17% summer reserve margin system requirement, and that there are **no other options** available in time to avoid rolling blackouts in WNC, then obviously the two unit 280 MW CC unit plan in the application is preferable. But DEP's reply does not present and discard as not-preferable other means to avoid rolling blackouts such as the enhanced energy efficiency programs that DEP has already begun implementing (going door to door in residential neighborhoods for example), battery storage, enhanced load control, expanded time of use rate adoption, or other "smart grid" measures.
- (7) DEP's reply asserts that Mr. Hahn's Exhibit C would create a situation where CTs would need to run as base load. Their logic is based on operating the WNC system as an island. However, what would most likely happen under this, admittedly "unrealistic", scenario is that imports into the region would almost always satisfy the regional "base load" requirements. Indeed, the low utilization of the existing coal units over the last several years bears witness to this likelihood.

In summary, I would like to thank the Commission for the opportunity to participate as an individual customer / intervenor in their deliberations. I am happy that DEP has responded with additional justification of their decision to build the 280 MW unit size. I am very pleased that DEP is working with the community to avoid the contingent CT unit and to investigate the options that are available to meet the electricity needs of WNC while relying less on fossil fuel generation. I am pleased that DEP has announced cancelation of the existing coal units. I find most compelling DEP's arguments regarding economies of scale with respect to the choice of larger generating units versus smaller generating units. However, I do not feel that the application or Duke's reply contains sufficient independent verification or study in the of true extent of these economies of scale. Nor has there been sufficient exploration of alternatives to the planned units. As such I continue to recommend that the Commission seek a solution which would allow continued work to make sure we are truly on "the right track", while also ensuring the timely retirement of the coal units.

Respectfully submitted,

Brod Rouse

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CERTIFICATE OF SERVICE

I certify that a copy of the foregoing Comments of Brad Rouse as filed today in Docket No. E-2, Sub 1089 has been served on all parties of record by electronic mail or by deposit in the U.S. Mail, first-class, postage prepaid. This 26th day of February, 2016.

Brad Rouse

s/ Brad Rouse