

**BEFORE THE NORTH CAROLINA UTILITIES COMMISSION
DOCKET NO. E-7, SUB 1276**

In the Matter of:	)	NORTH CAROLINA
	)	SUSTAINABLE ENERGY
Duke Energy Carolinas, LLC's	)	ASSOCIATION, NORTH
Request to Initiate Technical	)	CAROLINA JUSTICE CENTER,
Conference Regarding the	)	NORTH CAROLINA HOUSING
Projected Transmission and	)	COALITION, SOUTHERN
Distribution Projects to be	)	ALLIANCE FOR CLEAN
Included in a Performance-Based	)	ENERGY, AND NATURAL
Regulation Application	)	RESOURCES DEFENSE
	)	COUNCIL'S JOINT COMMENTS
	)	ON DUKE ENERGY CAROLINAS,
	)	LLC'S TRANSMISSION AND
	)	DISTRIBUTION INFORMATION
	)	FILING

Pursuant to the North Carolina Utilities Commission's (Commission) September 14, 2022 *Order Scheduling Technical Conference and Setting Procedures for Technical Conference*, the North Carolina Sustainable Energy Association (NCSEA), North Carolina Justice Center (NC Justice Center), North Carolina Housing Coalition (NC Housing Coalition), Southern Alliance for Clean Energy (SACE), and Natural Resources Defense Council (NRDC) (collectively, the Intervenor) provide the following comments on Duke Energy Carolinas, LLC's (DEC or the Company) Transmission and Distribution Information Filing (T&D Filing) submitted October 19, 2022.

I. TRANSMISSION

DEC's proposed transmission projects will require a significant amount of careful vetting, much more than is possible without discovery, and much more than

can be achieved within the brief period following DEC's release of its proposed spending on transmission and distribution. Notwithstanding these limitations, the Commission should consider whether additional transmission investments would accelerate the integration of DEC's system with that of Duke Energy Progress, LLC (DEP). Transmission projects that improve integration and consolidated operation or enable joint dispatch across the DEC and DEP systems will allow for a more diverse array of future energy supply options and ultimately more efficient and effective system planning. In addition, such projects would facilitate the eventual merger of DEC and DEP.

The Commission should also consider "rightsizing" DEC's proposed transmission investments, which address near-term reliability requirements driven by known and committed load or resource additions at this time, so that those investments can also address the long-term needs of a decarbonized grid. In other words, the Commission should consider whether a marginally more expensive upgrade now—which would allow for greater capacity to carry additional renewable energy in the future—would prevent the need for additional investments that would ultimately be more expensive down the road. The Commission should also investigate various Grid Enhancing Technologies (GETs) that could potentially add value to DEC's planned transmission spending. The Commission should consider DEC's proposed transmission investments in light of current, ongoing proceedings before the Federal Energy Regulatory Commission, which suggest that utilities such as DEC should investigate various GETs in their transmission planning processes.

II. DISTRIBUTION

DEC's proposed distribution projects will require a significant amount of careful vetting, much more than is possible without discovery, and much more than can be achieved within the brief period following DEC's release of its proposed spending on transmission and distribution. Nevertheless, the Commission should be very skeptical of some of DEC's distribution proposals, several of which appear to be similar to widely criticized elements of Duke Energy's previous Power/Forward (2017) and Grid Improvement Plan (GIP, 2019) proposals.

The Intervenors were among the parties that reached a partial settlement with DEC in its most recent general rate case on a more limited scope of GIP distribution projects than the Company initially proposed.¹ Following the Public Staff's similar settlement on these issues,² this diverse group of parties agreed to support deferral accounting treatment for the following distribution-related aspects of GIP:

- Self-Optimized Grid
- Conversion Voltage Regulation³ & Power Electronics for Volt/VAR Control
- Integrated System and Operations Planning (ISOP)
- Distribution Automation
- Distributed Energy Resources (DER) Dispatch Tool

¹ *Agreement and Stipulation of Settlement between DEC and NCSEA, NC Justice Center, NC Housing Coalition, SACE, and NRDC*, Docket No. E-7, Sub 1214 (July 23, 2020).

² *Second Agreement and Stipulation of Partial Settlement between DEC and the Public Staff*, Docket No. E-7, Sub 1214 (July 31, 2020).

³ Initially proposed as Integrated Volt/VAR Control.

In its Order approving deferral accounting treatment for the scaled-down package of GIP programs, the Commission decided that it would limit the amount of costs that would be allowed deferral accounting treatment to \$800 million.⁴

In its prospective three-year distribution planning, some of those same or related programs are slated to continue, while some would disappear:

Program (\$M)	2024	2025	2026	Total
Self-Optimizing Grid	\$129.6	\$59.20	\$85.80	\$274.60
Integrated Volt/VAR	\$26.00	\$37.90	\$34.30	\$98.20
Voltage Regulation & Management	\$26.70	\$41.40	\$33.50	\$101.60
ISOP	\$0.00	\$0.00	\$0.00	\$0.00
Distribution Automation	\$15.30	\$8.20	\$5.40	\$28.90
DER Dispatch Enterprise Tool	\$0.00	\$0.00	\$0.00	\$0.00
Subtotal - Distribution Projects related to programs in GIP Settlement (\$M)				\$503.30

Notably there is no longer planned spending in the ISOP or DER Dispatch Enterprise Tool categories. In addition, the spending on these modernization programs is dwarfed by DEC's planned spending on more traditional distribution grid spending, such as tree removal, various distribution hardening and resilience projects, targeted undergrounding (TUG), and equipment retrofits. All told, these more traditional distribution plans would cost ratepayers about \$1.9 billion dollars over the next three years. Intervenors also question DEC's insistence that grid maintenance programs like TUG or hardening and resilience of laterals "encourage

⁴ *Order Accepting Stipulations, Granting Partial Rate Increase, and Requiring Customer Notice*, Docket No. E-7, Sub 1214, at 139 (March 31, 2021).

DERs” or “encourage beneficial electrification” as claimed for all of DEC’s planned distribution spending programs.

About \$1.3 billion is planned for distribution-related spending in categories that appear to come from Power/Forward and GIP, though it is hard to say at this stage how much overlap remains from Duke’s previous grid spending plans, such as TUG (\$193.83 million), various distribution hardening and resiliency projects (\$594.9 million), and Long-Duration Interruption (\$23.9 million). Duke’s prior TUG plans have received consistent criticism, including from the Intervenor’s witness Dennis Stephens in DEC’s most recent rate case.⁵ Even though Witness Stephens ultimately agreed that deferral accounting treatment of the distribution-related investments from the stipulation was appropriate, his critique of DEC’s TUG plans remains relevant. Witness Stephens recommended the Commission reject DEC’s TUG program because the reliability improvements were not guaranteed, noting that reliability improvements from reduced vegetation contact and weather can be lost to service interruptions caused by flooding or improper digging. He also testified to the increased difficulty in locating underground faults (when compared to overhead line faults) and the increased cost and difficulty of making repairs to underground lines. Witness Stephens also determined that the high costs for undergrounding were not justified, citing a Lawrence Berkeley National Laboratory report that found the benefit-to-cost ratio of undergrounding is 0.3 to 1, meaning that the costs exceed benefits by a factor of more than three.⁶ He also found fault

⁵ Direct Testimony of Dennis Stephens on behalf of NC Justice Center, NC Housing Coalition, SACE, NRDC, & NCSEA, Docket No. E-7, Sub 1214, at pp. 29-33 (Feb. 18, 2020).

⁶ *Id.*, at p. 30 (citing Larsen P., *A Method to Estimate the Costs and Benefits of Undergrounding Electricity Transmission and Distribution Lines*, Lawrence Berkeley National Laboratory (October 2016)).

with the supposed benefits DEC identified, which he found to be inflated and accrued overwhelmingly to commercial customers.

The Intervenors ask the Commission to scrutinize DEC's cost-benefit calculations and consider carefully the values attributed to reducing momentary power outages and question whether distribution-related costs, which fall disproportionately on residential ratepayers, can be justified by supposed economic benefits to other classes of ratepayers. Given costs that can be expected to comply with the Carbon Plan, it will be all the more important to prioritize those distribution grid projects that are most essential for maintaining affordable, reliable service while meaningfully helping to integrate distributed energy resources.

III. CONCLUSION

The Intervenors respectfully request that the Commission take these comments into consideration in its deliberations about DEC's T&D Filing.

Respectfully submitted, this the 2nd day of November 2022.

/s/ Taylor M. Jones

Taylor M. Jones
N.C. State Bar No. 58831
NC Sustainable Energy Association
4800 Six Forks Road, Suite 300
Raleigh, NC 27609
919-832-7601
taylor@energync.org

*Attorney for North Carolina Sustainable
Energy Association*

/s/ David L. Neal

David L. Neal
N.C. Bar No. 27992
Munashe Magarira

N.C. Bar No. 47904
Southern Environmental Law Center
601 W. Rosemary Street, Suite 220
Chapel Hill, NC 27516
Telephone: (919) 967-1450
Fax: (919) 929-9421

*Attorneys for North Carolina Justice
Center, North Carolina Housing
Coalition, Southern Alliance for Clean
Energy, and Natural Resources Defense
Council*

CERTIFICATE OF SERVICE

I hereby certify that all persons on the docket service list have been served true and accurate copies of the foregoing filing by hand delivery, first class mail deposited in the U.S. mail, postage pre-paid, or by email transmission with the party's consent.

This the 2nd day of November 2022.

/s/ Taylor M. Jones
Taylor M. Jones
N.C. State Bar No. 58831
NC Sustainable Energy
Association
4800 Six Forks Road, Suite 300
Raleigh, NC 27609
919-832-7601
taylor@energync.org