

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. E-2, SUB 1197
DOCKET NO. E-7, SUB 1195

In the Matter of
Application by Duke Energy Carolinas,)
LLC and Duke Energy Progress, LLC for)
Approval of Proposed Electric)
Transportation Pilot)
ORDER REQUESTING
COMMENTS ON PROPOSED
ELECTRIC TRANSPORTATION
PILOT PROGRAM
)

BY THE CHAIRMAN: On March 29, 2019, Duke Energy Carolinas, LLC (DEC), and Duke Energy Progress, LLC (DEP) (collectively, Duke) filed an application in the above-captioned docket, pursuant to N.C. Gen. Stat. § 62-140 and various Commission rules, requesting approval of Duke’s proposed electric transportation pilot (ET Pilot) program.

In summary, Duke states that the use of electric vehicles (EVs) in the United States is growing at a significant rate, and that Duke recognizes that it must prepare for and better understand the electrical needs and impacts of EVs. Duke notes that in 2011, in Docket No. E-7, Sub 969, the Commission approved DEC’s request to conduct a plug-in EV charging station load research study wherein DEC provided EV charging stations with up to \$1,000 of installation fees for 150 residential customers who bought or leased a plug-in EV (2012 Study). Duke states that the 2012 Study helped DEC gain a baseline understanding of residential customer light-duty EV charging behavior, average energy consumption of EV charging, and average purchase and installation costs of early market electric vehicle supply equipment.

Duke states that the EV market in North Carolina has increased significantly since 2011, with a compound annual growth rate of 39%. Further, Duke notes that in 2017 there were 2,055 passenger EVs registered in North Carolina, and that in August 2018 EVs made up 1.1% of North Carolina’s light-duty vehicle market. According to Duke, EV technology has advanced significantly, such that EVs contain larger batteries, charge at higher power levels, and have expanded to multiple market segments not previously offered. Moreover, Duke cites forecasts indicating that future adoption of passenger EVs in North Carolina will range from 3% to 8% of light-duty vehicle stock by 2025, depending on several factors, including: (1) vehicle availability, (2) infrastructure availability, and (3) state and local EV policies. With regard to state policies, Duke notes that Executive Order No. 80, North Carolina’s Commitment to Address Climate Change and Transition to a Clean Energy Economy, issued by Governor Roy Cooper on October 29, 2018, directs that North Carolina will “strive to accomplish” increasing the number of registered, zero-emission vehicles to at least 80,000 by 2025.

Duke states that it has conducted research to demonstrate the potential electric system/customer benefits of increased EV use, and the potential for utility-managed charging to enhance customer benefits. In addition, Duke states that it designed the ET Pilot to determine best practices for realizing significant potential benefits of increased electric transportation adoption in North Carolina, including the long-term potential for downward rate pressure, retaining fuel cost savings in North Carolina, and reducing vehicle emissions and improving air quality. Duke attached to its application as Exhibit B a cost-benefit analysis of EV adoption scenarios.

Duke states that utilities throughout the United States are investing in EV charging infrastructure, that since 2013 state utilities commissions have approved over \$1 billion of utility investment in EV programs, and it cites a number of specific examples of these developments. Duke submits that by installing a foundational level of direct current (DC) fast charging stations in North Carolina the ET Pilot would build on a national network to allow EV drivers to travel seamlessly along interstate corridors. Further, Duke maintains that it is well-suited to deploy the EV charging infrastructure needed in North Carolina.

Duke states that the objective of the ET Pilot is to assess different charging load profiles from residential EV, fleet EV, school bus EV, transit bus EV, and DC Fast Charging (DCFC) in North Carolina, consistent with the State policies discussed in its application. Duke lists several additional goals of the ET Pilot, including: (1) supporting the development of a competitive market for EV charging services and ensuring customer choice in EV charging technology, (2) determining procedures to cost-effectively integrate vehicle charging by actively managing charging loads, (3) supporting public transit electrification and associated cost savings for public agencies in North Carolina, (4) ensuring that electrification projects benefit all customers, including those who do not own EVs and low/moderate income customers, (5) coordinating with the North Carolina Department of Environmental Quality (DEQ) on the Volkswagen Settlement Environmental Mitigation Trust funding, and (6) to the extent practicable, leveraging available funding streams for electrification projects.

Duke states that it will report operational data and results from the ET Pilot to the Commission on an annual basis, prepare a final report with findings and conclusions, and, concurrent with the final report, conduct a stakeholder working group to share results and solicit input for future program design. In addition, Duke states that if it determines that the ET Pilot is ready for wider subscription, it will file a program for the Commission's approval that will incorporate lessons learned and feedback from the stakeholder working group.

Duke notes that there are three customer segments of the ET Pilot: (1) EV charging management, (2) transit electrification, and (3) public charging expansion. Duke proposes seven pilot programs within these segments: (1) Residential EV Charging, (2) Fleet EV Charging, (3) EV School Bus Charging, (4) EV Transit Bus Charging, (5) Multi-Family Dwelling Charging Station, (6) Public Level 2 Charging Station, and (7) Direct Current Fast Charging Station. Duke describes the details of each proposed program. Further, Duke states that it will conduct market education and outreach for each program similar

to the outreach efforts for existing energy efficiency and demand response programs, including electronic communications, direct mail, social media, public event, and mass market advertising. In addition, Duke states that it will leverage relationships with agencies and organizations such as North Carolina's Clean Cities coalitions, Plug-in NC, and environmental non-governmental organizations that have supported Duke Energy's electric transportation efforts in other jurisdictions.

Duke states that the estimated cost of the ET Pilot is approximately \$76 million over three years. Duke provides a breakdown of per program costs, and states that it intends to recover the costs through DEP's and DEC's base rates.

Finally, Duke requests expedited Commission approval of the ET Pilot in 60 days, with an effective date for the ET Pilot 90 days after Commission approval. Duke states that expedited approval is needed to ensure that it can timely advocate for DEQ to commit to funding for the replacement of some of North Carolina's diesel school buses with electric school buses from North Carolina's Volkswagen Settlement Environmental Mitigation Trust, and that the DEQ request for proposal period is currently scheduled for early 2019.

Based on Duke's application and the record, the Chairman finds good cause to request comments and reply comments from interested parties regarding Duke's proposed ET Pilot program.

IT IS, THEREFORE, ORDERED as follows:

1. That on or before May 6, 2019, persons having an interest in this matter may file petitions to intervene in this docket.
2. That on or before May 6, 2019, intervenors and the Public Staff may file initial comments regarding Duke's proposed ET Pilot program.
3. That on or before May 20, 2019, all parties may file reply comments.

ISSUED BY ORDER OF THE COMMISSION.

This the 4th day of April, 2019.

NORTH CAROLINA UTILITIES COMMISSION



Janice H. Fulmore, Deputy Clerk