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February 28, 2020

VIA ELECTRONIC FILING

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

**Re: Duke Energy Progress, LLC's and Duke Energy Carolinas, LLC's
Joint Proposed Order
Docket Nos. E-2, Sub 1197 and E-7, Sub 1195**

Dear Ms. Campbell:

Enclosed for filing in the above-referenced docket is Duke Energy Progress, LLC and Duke Energy Carolinas, LLC's Joint Proposed Order.

If you have any questions, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink that reads 'Kendrick C. Fentress'.

Kendrick C. Fentress

cc: Parties of Record

Enclosure

OFFICIAL COPY

Feb 28 2020

CERTIFICATE OF SERVICE

I certify that a copy of Duke Energy Progress, LLC and Duke Energy Carolinas, LLC's Joint Proposed Order, in Docket Nos. E-2, Sub 1197 and E-7, Sub 1195, 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 28th day of February, 2020.



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STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

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

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of:

Application by Duke Energy Carolinas, LLC and Duke Energy Progress, LLC for Approval of Proposed Transportation Project)	JOINT PROPOSED ORDER OF DUKE ENERGY CAROLINAS, LLC AND DUKE ENERGY PROGRESS, LLC
)	
)	
)	

HEARD: Thursday, November 21, 2019 at 10:30 a.m. in Commission Hearing Room 2115, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina

BEFORE: Chair Charlotte A. Mitchell, Presiding
Commissioner ToNola D. Brown-Bland
Commissioner Lyons Gray
Commissioner Daniel G. Clodfelter
Commissioner Kimberly W. Duffley
Commissioner Jeffrey A. Hughes

APPEARANCES:

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For the Using and Consuming Public:

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BY THE COMMISSION: On March 29, 2019, Duke Energy Carolinas, LLC (“DEC”) and Duke Energy Progress, LLC (“DEP”), collectively “Duke Energy” or “the Companies,” filed an application requesting approval of the proposed Electric Transportation Pilot Program (“ET Pilot”).

On April 4, 2019, the Commission issued an *Order Requesting Comments on Proposed Electric Transportation Pilot Program*, in which the Commission allowed initial comments by May 6, 2019 and reply comments by May 20, 2019.

On April 9, 2019, the North Carolina Sustainable Energy Association (“NCSEA”) filed a petition to intervene in these dockets, and the intervention was allowed by the Commission on April 9, 2019. On April 15, 2019, the Sierra Club filed a petition to intervene, and the intervention was allowed by the Commission on April 16, 2019. On April 24, 2019, ChargePoint, Inc. filed a petition to intervene, and the intervention was allowed by the Commission on May 1, 2019. On April 26, 2019, Environmental Defense Fund (“EDF”) filed a petition to intervene, and the intervention was allowed by the Commission on May 3, 2019. On May 6, 2019, petitions to intervene were filed by North Carolina Clean Energy Business Alliance (“NCCEBA”), Zeco Systems, Inc. d/b/a Greenlots (“Greenlots”), and jointly Southern Alliance for Clean Energy and the North Carolina Justice Center (“SACE/NCJC”). The Commission allowed intervention of these parties on May 17, 2019. The intervention and participation by the Public Staff are recognized pursuant to N.C. Gen. Stat. § 62-15(d) and Commission Rule R1-19(e).

An extension of time was granted by the Commission, and initial comments were filed by NCCEBA and SACE/NCJC on July 3, 2019, and by ChargePoint, EDF, Greenlots, NCSEA, the Public Staff, and Sierra Club on July 5, 2019.

After an additional extension of time was granted by the Commission, the following parties filed reply comments: EDF on July 22, 2019 and ChargePoint, Duke Energy, Greenlots, SACE/NCJC, and Sierra Club on August 9, 2019.

The Commission received numerous statements of position and letters of support

from interested parties, including: ABB, Inc.; ADOMANI, Inc.; Advanced Energy; Alliance for Transportation Electrification; Blue Horizons Project; Brightfield Transportation Solutions; Centralina Council of Governments (“CCOG”); City of Asheville; City of Charlotte; Electrify America, LLC; EV Box, North America; EV Connect; GoDurham and City of Durham; Greenlots; Joint Automakers; Proterra, Inc.; Natural Resources Defense Council (“NRDC”); Regional Transportation Alliance; SemaConnect, Inc.; Siemens Digital Grid; Southeast Energy Efficiency Alliance (“SEEA”); and several individuals.

On October 25, 2019, the Commission issued its *Order Scheduling Hearing*, which scheduled a hearing on November 21, 2019 to obtain additional information on the public interest and ratemaking implications of Duke Energy’s proposed ET Pilot. The Commission required Duke Energy to have persons available who can provide information and answer questions but did not require pre-filed testimony. On November 1, 2019, the Commission issued its *Order Providing Notice of Hearing Topics* for the November 21, 2019 hearing.

The matter came on for hearing on November 21, 2019. Duke Energy made Lang Reynolds, Director of Electric Transportation, and Laura Bateman, Director of the Carolinas Rates and Regulatory Strategy Group available to respond to questions from the Commission. On December 17, 2019, the Commission issued its *Order Requiring Filing of Proposed Orders*, which allowed parties until February 3, 2020 to file proposed orders.

After an additional extension of time, Duke Energy and the parties proposed orders on February 28, 2020. In addition to their proposed order, the Companies filed a Settlement Agreement with ChargePoint.

DISCUSSION AND CONCLUSIONS

The Companies' Application

The adoption of electric vehicles (“EV”) in the United States is growing at a significant pace. As such, Duke Energy recognizes that it must prepare for and better understand the electrical needs and impacts of EV on its systems in North Carolina. In 2011, the Commission first approved DEC’s request to conduct a plug-in EV charging station load research study (“Study”) where DEC provided EV charging stations with up to \$1,000 of installation fees to 150 residential customers who bought or leased a plug-in EV, or PEV, in DEC’s service area. *Order Approving Study*, Docket No. E-7, Sub 969, issued March 22, 2011 (“2012 Study Order”). DEC began operating the Study with the objective of collecting data about its customers’ EV charging behaviors for a two-year period to better understand the impact that charging EVs would have on power demand, transformers, cabling and other infrastructure. By the conclusion of the Study, DEC had developed 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 (“EVSE”).

Since the conclusion of the 2012 Study, however, the EV market has grown and evolved as more EV models have become available. EV adoption has occurred at more than twice the rate of traditional hybrids when they were first released. Moreover, the EV market in North Carolina has increased significantly, with a compound annual growth rate of 39% since 2011. In 2017, 2,055 passenger EVs were registered in North Carolina, and in August 2018, EVs made up 1.1% of North Carolina’s light-duty vehicle market. Additionally, EV technology has advanced significantly since DEC introduced the 2012

Study. EVs contain larger batteries, charge at higher power levels, and have expanded to multiple market segments not previously offered. Forecasts indicate 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 influencing factors including a) vehicle availability, b) infrastructure availability, and c) state and local EV policies.

Central to Duke Energy’s proposed ET Pilot is the State’s EV policy, specifically, Executive Order 80.¹ On October 29, 2018, Governor Cooper issued Executive Order 80, in which he directed the State of North Carolina to “strive to accomplish” increasing the number of registered, zero-emission vehicles to at least 80,000 by 2025. Governor Cooper has also designated the North Carolina Department of Environmental Quality (“DEQ”) to manage North Carolina’s share of the Volkswagen Settlement Environmental Mitigation Trust (“Volkswagen Settlement Trust”), an agreement between the German automaker and the United States Department of Justice on behalf of the Environmental Protection Agency (“EPA”). DEQ will manage these settlement funds through several programs, including the zero-emission vehicle infrastructure program. The DEQ Energy Policy Council recommended that the State adopt measures and implement programs that promote EV adoption and ease the transition to an electrified transportation economy for all North Carolinians. The Energy Policy Council further urged consideration by elected officials and regulatory agencies of measures intended to address perceived barriers to EV deployment.

¹ <https://files.nc.gov/ncdeq/climate-change/EO80--NC-s-Commitment-to-Address-Climate-Change---Transition-to-a-Clean-Energy-Economy.pdf>

Duke Energy believes that more investment in EV charging infrastructure will accelerate EV adoption in the State, consistent with the intent of these State policies and the fast-developing EV market. To that end, Duke Energy has conducted research to demonstrate the potential electric system/customer benefits of increased EV adoption, and the potential for utility-managed charging to enhance those benefits. Duke Energy designed the proposed 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, reducing vehicle emissions and improving air quality.

Description of the ET Pilot Programs

In its application, Duke Energy set forth seven programs for a three-year ET Pilot in three areas of concern: EV charging management, transit electrification, and public charging expansion. For EV charging management, Duke Energy proposed the residential EV charging program and the fleet EV charging program. For transit electrification, Duke Energy proposed the EV school bus charging program and EV transit bus charging program. For public charging expansion, Duke Energy proposed the multi-family dwelling charging station program, the public level 2 charging station program and the direct current fast charging station program.

The residential EV charging program is designed to evaluate whether it can encourage EV adoption by providing a rebate to support the installation of EVSE and to establish procedures to determine the value and viability of utility-managed charging in practice. The program will provide a rebate of \$1,000 for up to 500 DEC and 300 DEP residential customers, respectively, in exchange for participation in the program, which

will include the transmission of charging load data as well as utility management of home charging during defined hours. Proposed tariffs for DEP's and DEC's residential EV charging programs were provided.

The fleet EV charging program is designed to support the installation of EVSE for public and private entity fleets to encourage the use of newer, cleaner EV fleets, and to collect utilization characteristics of EV fleet charging behavior for a variety of EV types and weight-classes to better understand potential grid and utility impacts of this EV market segment. Duke Energy will offer a \$2,500 incentive to commercial and industrial customers that operate fleet vehicles. Participating customer must install all EVSE behind a separate meter taking service on an available commercial Time of Use ("TOU") rate. DEC will offer no more than 500 total EVSE rebates, and DEP will offer no more than 400 total EVSE rebates, which will be considered by application on a first-come, first-served basis within limits for participation by a single customer location or parent entity. Duke Energy stated that there is potential for significant operational (fuel and maintenance) cost savings to operators of EV fleet vehicles, as well as emission reductions and electric system benefits from the adoption of EV fleets. Proposed tariffs for DEC's and DEP's fleet EV charging program were provided.

The EV school bus charging station program is designed to facilitate the replacement of older diesel school buses with modern, zero-emission school buses in public school transportation systems, install supporting EVSE to facilitate market adoption, and collect utilization and other load characteristics to understand grid and utility impacts and explore the potential for bi-directional power flow from EV school bus ("EVSB") batteries. Under this program, DEC seeks to aid in the deployment of approximately 55 electric

school buses, and DEP seeks to aid in the deployment of approximately 30 electric school buses by funding up to \$215,000 per bus, on a first-come, first-served basis, to school districts willing to purchase an electric school bus with bi-directional power flow capabilities. Duke Energy designed the program incentive level to offset the portion of the cost of the bus corresponding to incremental costs associated with the battery. In exchange for this funding, the customer will allow access to all vehicle charging data, and perform testing of charging load management and bi-directional charging capabilities. By testing the bi-directional capabilities of an EVSB, the school bus battery will operate as a grid asset, and Duke Energy will retain the right to repurpose the EVSB battery after its useful vehicle life as a second-life storage asset. Duke Energy argues the use of the batteries as grid assets justifies the investment level in this Program.

Additionally, Duke Energy designed the EV school bus charging program to complement the anticipated funding available for replacement of legacy diesel school buses per the Volkswagen Settlement Trust. As related to North Carolina's share of the Settlement Trust, DEQ intends to allocate a portion of the Settlement Trust funds to replace older diesel school buses with new diesel, propane or electric school buses. In the application, Duke Energy states that the availability of funds from the Volkswagen Settlement Trust, combined with its proposed infrastructure investment, would encourage DEQ to replace a limited number of legacy high-emitting schools buses with zero-emission, electric school buses. By adding this utility cost-share to the same level of funding used to purchase a diesel bus, which costs upward of \$80,000.00, Duke Energy states that the program would allow DEQ to replace the same number of buses but reduce net annual NOx emissions by an additional 10,400 grams per bus compared to new diesel

at no additional cost to the State. Duke Energy also states that electric school buses can provide strong operational cost savings currently estimated at approximately \$144,000 annually for a deployment of 20 school buses and that several school districts have expressed interest. Proposed tariffs for DEC's and DEP's EV school bus battery and charging program were provided.

The EV transit bus charging station program is designed to deploy charging stations for EV transit buses ("EVTB") to support EVTB adoption and collect utilization and other load characteristics to understand potential grid and utility impacts. DEP and DEC will install and own qualifying EVSE selected by the transit agency. Duke Energy proposes 60 stations eligible for funding in the DEC service territory and 45 stations eligible for funding in the DEP service territory. There are significant potential operational cost savings and emissions reductions benefits of electric buses, which extend the benefits of transportation electrification to customers who do not drive EVs. Customers such as Greensboro Transit Authority, City of Asheville, and the Raleigh Durham Airport Authority have already deployed or are already planning investments in electric transit buses. The program is designed to complement the Federal Transit Administration funding available for replacement of legacy transit buses, and is available to first-come, first-served non-residential customers that operate transit buses, including transit agencies, universities, airports, and other non-profit/municipal entities. The Companies will install and own qualifying EVSE selected by the transit agency. Duke Energy proposes 60 stations eligible for funding in the DEC service territory and 45 stations eligible for funding in the DEP service territory. Proposed tariffs for DEC's and DEP's EV transit bus charging program were provided.

The multi-family dwelling charging station program is designed to provide access to residential charging for non-homeowners. DEC and DEP will install, own and operate Level 2 (“L2”) EVSE, and collect a charging fee based on the marginal energy component of the applicable Company’s currently approved Small General Service schedule, plus \$0.02/kilowatt hour (“kWh”) to cover network platform and transaction fees. Duke Energy proposes to deploy 100 and 60 stations, respectively, in DEC’s and DEP’s territories. Limited ability to install charging infrastructure at a residence is commonly cited as a barrier for multi-family dwelling tenants to purchase an EV. In support of the development of a competitive market for EV charging and to maximize host choice, DEC and DEP will offer multiple brands of EVSE hardware from which the site host can select. Proposed tariffs for the multi-family dwelling charging station program were provided.

The public L2 charging station program is designed to provide a base level of destination charging for drivers in DEC’s and DEP’s North Carolina service territories and to ensure that the pilot programs are publicly available to a broad cross-section of customers. DEC and DEP will install, own, and operate L2 EVSE, and collect a charging fee based on the marginal energy component of the applicable Company’s currently approved Small General Service schedule, plus \$0.02/kWh to cover network platform and transaction fees. Duke Energy proposes to deploy 100 stations and 60 stations, respectively, in DEC’s and DEP’s territories. Proposed tariffs for the Public L2 charging station program were provided.

The fast charging program is designed to ensure assets are used and useful for public benefit throughout the full life of the asset and is well-suited to deploy a foundational level of fast charging infrastructure to facilitate long-distance travel through the service

territory. DEC intends to install, own and operate a network of up to 70 fast chargers across approximately 35 individual locations in its service territory, and DEP intends to install, own and operate a network of up to 50 fast chargers across approximately 25 individual locations in its service territory. Stations will include charging equipment with electrical demand requirements of 100 kW or greater.

Currently, the market for public fast charging in North Carolina is limited, with only three commercial operators charging drivers a fee for the service. Duke Energy wants to facilitate the continued growth of fast charging accessibility and realizes a customer fee to use the stations must be at a comparable price to other public EV charging options in North Carolina. To charge less would undercut other operators; to charge more would reduce the incentive for drivers to use DEP's and DEC's stations. To address this nuance appropriately, DEC and DEP will offer fast charging services in exchange for a Fast Charge Fee consistent with the statewide average for fast charging offered by those stations that charge a fee to the driver and are publicly accessible 24-hours per day. Net revenue from charging would offset total program costs, ensuring that EV drivers pay a greater proportion of program costs than the general body of customers. DEP and DEC would calculate, update, and publish the Fast Charge Fee on a quarterly basis to provide a clear and stable price signal to consumers while also encouraging further market growth from other operators. Nevertheless, Duke Energy does not expect the Fast Charge Fee to recover the full cost of the charging infrastructure within the term of the ET Pilot.

Duke Energy argues that a utility can ensure that fast chargers are located such that they are available to all customers rather than only to those of demographics or locations that are early adopters of new technology. According to Duke Energy, insufficient charging

infrastructure is commonly cited as a barrier to purchasing an EV. Using the EVI-Pro Lite tool developed by the U.S. Department of Energy, Duke Energy estimates nearly 300 public DCFC plugs will be necessary by 2025 to support the Executive Order 80 goal of 80,000 registered EVs. As of January 2019, there were only 86 open-standard, publicly available DCFC charging plugs in North Carolina. Currently, only a limited number of publicly available fast chargers are available in North Carolina due to the unfavorable revenue potential of the current EV population. The high upfront cost of fast charging installations — particularly at highway corridor locations where they are most needed — results in challenging economics and few commercial installations. Duke Energy states that, without owning the charger, a utility cannot ensure that customer-funded chargers remain well-maintained and useful for the long term.

According to Duke Energy's application, the fast charging locations may be located on company-owned or third-party owned property, including, but not limited to, truck stops, gas stations, restaurants, and other retail establishments. Stations will be installed along highway corridor locations throughout the service territories and made available to DEC and DEP customers and non-customers alike to enable intra- and inter-state EV travel and build driver confidence in EVs. The proposed tariffs for DEC's and DEP's fast charging program were provided.

Program Costs

Over the proposed three years of the ET Pilot, DEC's cost for the ET Pilot is estimated to be \$45,580,250, and DEP's cost for the ET Pilot is estimated to be \$30,438,250. The cost breakdown per utility, per program, is as follows:

	DEC	DEP
Residential Rebate	\$1,175,000	\$705,000
C&I Fleet Rebate	\$1,925,000	\$1,540,000
EV School Bus	\$11,981,750	\$6,535,500
EV Transit Bus	\$4,671,000	\$3,503,250
Multi-Family L2	\$1,285,000	\$771,000
Public L2	\$1,285,000	\$771,000
DC Fast Charge Network	\$20,107,500	\$14,362,500
Education and Outreach	\$2,025,000	\$1,350,000
Ongoing O&M	\$1,125,000	\$900,000
Utility Total	\$45,580,250	\$30,438,250
Combined Total		\$76,018,500

DEC and DEP intend to recover the costs of their ET Pilot through their respective base rates. DEC's and DEP's application did not seek cost recovery for the ET Pilot but did request Commission approval of the ET Pilot along with the associated filed tariffs.

Public Staff's Comments

The Public Staff asserts that it conducted a detailed investigation of the Companies' applications and responses to numerous data requests, as well as a review of pilot programs of other electric utilities, and discussions with other stakeholders and state agencies from in and outside North Carolina. According to the Public Staff, the Commission should not approve Duke Energy's programs because they do not meet the parameters of a pilot.

The Public Staff argues that the Companies have failed to demonstrate that spending \$76 million combined over a three-year period is necessary to learn more about serving current and future EV load. According to the Public Staff, the Companies have already conducted similar programs in North Carolina and other jurisdictions. The Companies currently have a project pending approval in South Carolina that is virtually identical to this proposal and have also conducted residential EV pilots in North Carolina in 2011 and 2014. The Public Staff states that there is not sufficient evidence that North Carolina customers are unique enough to necessitate a separate pilot program. The information gained by the proposed pilots would likely be publicly available from other jurisdictions within the next 12-18 months, and EV adoption is unlikely to significantly increase before 2025.

The Public Staff states that the cost benefit study of the Companies (“NC Study”) was a reasonable attempt to quantify the benefits and cost of EV analysis. However, based on the Companies’ answers to data requests, the Public Staff believes the study overestimates the reduction in emissions based on the number of adoptions and assumptions made about the Companies’ future generation resources which will provide the energy for the EVs. There are also no specific cost benefit studies for each individual program of the proposal.

Additionally, according to the Public Staff, the ET Pilot contains no metrics to judge whether it was a success and should be expanded. The Public Staff also questions the lack of any rate design pilots to show impact on customer usage. The Public Staff concludes that although it does not oppose transportation electrification, the Companies

are styling the proposal as a “pilot” while essentially requesting pre-approval for EV infrastructure investments that would be paid for by customers.

Intervenors’ Initial Comments

NCSEA states that it fully supports the deployment of electric vehicles and EV charging infrastructure, but such investment should be made in a way that supports all market participants. NCSEA requests that the Commission open a stand-alone proceeding to examine the issue and determine the goals of deploying EV charging infrastructure. NCSEA requests that the Commission deny the Companies’ petition to make capital investments for EV infrastructure and instead direct Duke Energy to develop and propose an EV “make-ready” program.

NCSEA denies the Companies’ assertion that the Companies are installing a foundational level of charging stations in North Carolina through the ET Pilot. NCSEA states that through data requests Duke Energy provides conflicting information that the Companies will be providing a significant amount of the total stations needed to support EV demand and the goals of Executive Order 80. This results from a confusion in plugs versus stations, ignoring already expanding EV infrastructure in the State, and the Companies’ exclusion of Tesla stations from its analysis, all of which NCSEA deems improper. NCSEA claims that through the Pilot the Companies will serve roughly two-thirds of the EV market.

NCSEA expresses concerns that Duke Energy’s knowledge of the grid is more troubling than the Companies acknowledge. Rather than using Customer Site Investigations, NCSEA argues that the Companies should not proceed with the ET Pilot until it can more economically evaluate potential sites using integrated distribution

planning or hosting capacity maps. Further, NCSEA is concerned that the Companies' knowledge of the grid could be used to monopolize the market for EV infrastructure. Essentially, NCSEA believes that the Companies' knowledge of where expensive upgrades would be required would cause Duke Energy not to use those sites and leave the expensive sites for potential competitors.

NCSEA also questions the Companies' focus on the DCFC market as opposed to Level 2 plugs and hybrid gas/electric vehicles. NCSEA states that the DCFC plugs are not currently compatible with demand-side management methods like Level 2 plugs, and could increase load, which would require more peaking generation capacity. NCSEA says it agrees with the Companies' goal to provide underserved communities with access to charging stations but questions whether the Companies' proposal includes any substantive plans to follow through with that commitment.

NCSEA further disagrees with the Companies' proposal to recover some of its EV costs through its base rates, while competing providers will have to rely solely on their EV customers. NCSEA argues that this proposal amounts to prohibited single-issue ratemaking outside the context of a general rate case.

NCSEA advocates for a make-ready program in which the Companies would provide infrastructure to the point where a charging station could be installed by another provider. NCSEA argues this would be consistent with the Companies' line extension policies approved by the Commission.

NCSEA is not opposed to the rebates in the Companies' proposal but requests that the rebates be decreased from \$1,000 to \$500. As to rate design, NCSEA opposes the Companies' proposed TOU rate and suggests the Companies should develop EV specific

tariffs including no demand charge, a fixed charge relating to customer specific costs, and a time varying energy rate.

NCSEA opposes the first-come, first-served basis of the EV School Bus and EV Transit Bus programs, arguing that would benefit wealthier counties and cities that would use up the rebates before poorer areas are able to participate. NCSEA suggests that the Commission implement some “scoring criteria” to ensure the rebates are given equitably across the State. Lastly, NCSEA asks the Commission to require the Companies to hire a third party to market the program and increase reporting to the Commission.

NCCEBA opposes the Companies’ proposal. According to NCCEBA, the proposal will have a substantial and deleterious effect on the EV charging market in North Carolina. NCCEBA argues that the Companies’ entry into the market will create an encroachment of monopoly activity into a growing competitive market. NCCEBA states that the Companies will control 25% of Level 2 charging stations and 50% of DC fast charging stations. NCCEBA disagrees with the Companies’ view of the EV market. According to NCCEBA, the EV market is currently expanding quickly enough to meet market needs.

SACE and NCJC filed joint comments and are generally supportive of the Companies’ proposed ET Pilot. SACE and NCJC recognize many positive impacts of EVs, including lower cost, downward pressure on electric rates, and environmental benefits. SACE and NCJC also recognize impediments to EV adoption, including costs of EVs and general lack of knowledge. SACE and NCJC support the program with the following modifications. First, strengthening the reporting requirements to require quarterly reports and concrete details to enable analysis. SACE and NCJC list specific information the Companies should be required to provide in their reports. SACE further requests the

Commission establish a stakeholder advisory council to help the Commission oversee aspects of the ET Pilot.

SACE and NCJC argue distributing rebates and charging stations on a first-come, first-served basis is not appropriate and will lead to affluent individuals, school systems, and transit authorities receiving a disproportionate share of the benefits when all customers are contributing to the costs of the program. SACE and NCJC request that the Companies be required to collect information on the participants in the residential program including household size, income, and socio-economic status to determine where there are gaps in deployment. SACE and NCJC state a certain amount of EV charging stations should be allocated to disadvantaged communities and ask to increase funding for electric school buses in lower income school districts. School districts should be prioritized on the basis of the impact of transportation pollution on the students in those areas. SACE and NCJC advocate a similar idea for transit buses.

SACE and NCJC argue the Companies should develop rates to send clear price signals to customers to encourage charging during off-peak times of day, reducing the costs of charging EVs and reducing the need for new load to meet demand. SACE and NCJC acknowledge that utilities have an important role to play in the emerging EV market, but over the long term SACE and NCJC support a competitive market and may not support utility ownership and operation of EV charging stations in the future.

Greenlots is supportive of the program and encourages Commission approval as proposed. Greenlots states that the proposal is an example of needed, prudent, and targeted utility investment that will have a significant impact in accelerating the growth of the EV market and meeting the greenhouse emission goals of Executive Order 80. According to

Greenlots, EV adoption faces several impediments in the State, including a lack of fast charging stations and general charging infrastructure, mostly notably public charging stations. This leads to a lack of adoption due to what Greenlots calls “range anxiety.” Greenlots also lists a number of benefits to EV deployment, including cost savings, environmental, health, energy security and grid resilience. Greenlots expresses disappointment that the proposal is only pilot scale and not program scale.

Greenlots disagrees with other commenters who argue the ET Pilot will hinder the development of a competitive market. Instead, Greenlots argues that the ET Pilot will support the growth of the competitive market by growing the EV market as a whole and therefore increasing the demand for additional charging stations in the marketplace. Greenlots states that drivers adopt EV technology due to the availability of charging stations, not necessarily the number of different providers and price.

EDF supports the Companies’ proposed ET Pilot and the Companies’ commitment to expanding the EV market as outlined in Executive Order 80. EDF does suggest some changes to the pilot programs. First, EDF encourages the inclusion of on-bill financing for the purchase of school and transit buses in which financing of those buses would be included on the transit agency or the school district’s bill. EDF also requests the inclusion of bill protection to protect participants from potentially dramatic and unexpected higher demand charges from higher usage that could move the customer into a higher rate class. It supports the inclusion of multiple rate designs in the Pilot, including those that incentivize charging during off-peak periods, and include tariffs that are volumetric and offer different structures that include a demand charge. EDF also supports the establishment of a working group to further study how to remove barriers to EV adoption.

The Sierra Club supports the ET Pilot proposed by the Companies but offers the following modifications for the Commission's consideration. First, the Companies should clarify its data collection plan, issue quarterly reports, and establish a stakeholder advisory process. Second, the Companies should use data from the Residential EV Charging program to develop EV specific time-of-use rates. Sierra Club requests that the Companies clarify the types of vehicles eligible for the program and whether single entities can receive multiple rebates. For multi-family dwelling units the Companies should evaluate options to incentivize off-peak charges. For DC Fast Charging Stations, the Companies should report prices charged to EV drivers at those locations. DC Fast Charging Stations should also be co-located with Level 2 stations. Finally, the Companies should develop additional solutions for clean transportation access for low and moderate income communities.

ChargePoint opposes certain parts of the proposed pilot program and believes several of its elements will delay the development of a long-term, sustainable competitive market. ChargePoint outlines three models for utility investment in EV infrastructure, ownership by the utility, make-ready, and rebate based. Specifically, ChargePoint argues the focus of utility investment should be to foster and support the existing competitive market and to spur EV adoption and further develop the competitive market. According to ChargePoint, the Commission should consider the variety of technologies available, the degree to which site hosts can make choices about operating, and the impact of spurring private investment alongside customer funds.

ChargePoint argues the lack of choice for participating customers among EV charging networks and not allowing participating customers to operate EV charging stations on their own property would adversely impact the existing competitive EV

charging market. ChargePoint agrees that an increase in EV charging infrastructure is needed, but that does not require the utility to bypass the existing market and local site hosts by owning and operating the charging stations themselves. ChargePoint alleges that this pilot would allow the Companies to position themselves to occupy a substantial position in the developing EV charging market, particularly with the DC fast charging program.

ChargePoint requests certain amendments to the pilots that include: (i) multiple charging networks and equipment vendors to reinforce competition and provide consumer choice and (ii) enabling site hosts under all offerings to operate charging stations on their own sites and the ability to determine prices to drivers. Additionally, ChargePoint believes the Commission should consider alternative utility investment models such as rebates and make-ready programs.

Duke Energy's Reply Comments

In its reply comments, Duke Energy states that most of the initial comments of the interested parties and the letters from various members of the public filed in these dockets are generally supportive of the proposed Pilot. Duke Energy argues that the ET Pilot directly responds to Governor Cooper's call to transform the state's transportation sector to provide a smarter, cleaner energy future for all North Carolinians

Duke Energy further notes that Executive Order 80 was not limited to a statement of broad policy goals. Rather, Governor Cooper adopted specific policy goals, including that the State will strive to reduce energy consumption per square foot in state-owned buildings by at least 40% and reduce state greenhouse emissions to 40% below 2005 levels. Most relevant to this docket, according to Duke Energy, is the Governor's directive to

develop a plan to increase the number of zero-emission vehicles registered in North Carolina to 80,000 by 2025.

Duke Energy also cites Session Law 2019-132, which was signed into law on July 21, 2019, that further supports the adoption of zero-emission vehicles by eliminating regulatory obstacles to enable Duke Energy and third parties to deploy EV charging stations. Session Law 2019-132 excluded third-party providers from the definition of "public utility," but - notably - did not exclude public utilities from participating in this market. Session Law 2019-132 amends N.C. Gen. Stat. § 62-3(23) to provide that electric power suppliers are not limited in their ability to use electric vehicle charging stations to furnish electricity for charging electric vehicles. Additionally, Session Law 2019-132 further provides that "[a]ny increases in customer demand or energy consumption associated with transportation electrification shall not constitute found revenues for an electric utility." According to Duke Energy, the General Assembly did not seek to exclude or limit DEC or DEP from participating in this market; in fact, it appears the General Assembly fully expects DEC and DEP to participate as regulated electric utilities in this market.

In response to NCSEA's and NCCEBA's criticism that the Pilot will hurt the developing market, Duke Energy states that its efforts will support EV adoption across the State and can benefit potential market entrants by jumpstarting the market. As the market develops through the Pilot, Duke Energy thinks the barriers to EV adoption will decrease, and participation in the market can increase. In response to NCCEBA's concern that Duke Energy's programs represent a major encroachment into a competitive market, Duke

Energy states the Commission has the authority to monitor developments and take steps to assure that Duke Energy's participation in the market helps it develop fairly.

In response to the Public Staff's criticism that the proposed ET Pilot is inappropriately designated as a pilot project, Duke Energy responds that such an analysis elevates form over substance. According to Duke Energy, achieving the goals of Executive Order 80 is not "business as usual" for North Carolina. Rather, Executive Order 80 is a clarion call for North Carolina to continue its status as a leader in addressing climate change and clean energy. In response to the Public Staff's concerns that the proposal contains no metrics or other standards for evaluating whether the programs are successful and appropriate to expand, Duke Energy states it is committed to report full operational data and results from the ET Pilot to the Commission on an annual basis with a final report concurrent with a stakeholder working group to determine the design of permanent future ET programs. Furthermore, Duke Energy emphasizes the importance of the ET pilot deployment in determining the structure of future permanent ET programs. According to Duke Energy, the ET Pilot is paramount to gathering the operational data needed to quantify the specific costs and benefits attributable to each program and to assign these costs and benefits to the appropriate parties. This thorough gathering of data to determine and assign costs is not available to Duke Energy without performing the ET Pilot, and this is the reason why Duke Energy has proposed a pilot instead of simply forging ahead with programs.² Duke Energy also committed to a rigorous Evaluation, Measurement and Verification ("EM&V") analysis of the impact of all segments of the ET Pilot to ensure

² Duke Energy states the EV School Bus charging program provides an illustrative example because no EV schools buses are currently deployed on DEC's or DEP's systems. As a result, a Pilot structure is necessary to determine the specific costs and benefits of charging an EV school bus on the systems.

that the goals of the pilot are met. Because EV infrastructure is still an emerging technology that has not been widely adopted, Duke Energy has discussed with SACE and the NC Justice Center an agreement to foster a robust EM&V process and to engage an expert in how these programs can be evaluated.

In response to the Public Staff's criticism that Duke Energy's proposal is simply an effort to seek pre-approval of cost recovery for the investments and expenses that the two Companies expect to incur, Duke Energy states that neither DEC nor DEP is seeking specific cost recovery in this docket; instead DEC and DEP will seek to recover their respective prudently incurred costs in general rate proceedings that DEC and DEP would file later. The Companies are asking the Commission to determine that they pursuing a prudent path for North Carolina and their customers, and unless the Commission should find that specific investment expenses were not prudent, they would expect to recover the prudent costs that they have incurred relating to this initiative in the context of a general rate proceeding.

Although Duke Energy believes that the seven program components are crucial to achieving the goals of the ET Pilot, given the Public Staff's and others' concerns over the size and scope of the Companies' proposal, Duke Energy offers to remove the Multi-Family Charging Stations and the Public L2 charging stations from the ET Pilot. This removal results in a decrease of approximately \$4.1 million from the overall cost of the ET Pilot. Additionally, Duke Energy is open to leaving the Level 2 market to develop without utility investment in the near term, if in fact there is an existing competitive EV charging market for this segment, while reserving the right the right to propose future programs to facilitate expansion of the Level 2 charging market as needed, including but not limited to segments

such as multi-family developments or low-income areas if they are found to be underserved by private charging operators.

In response to NCCEBA's claim that there are currently 13,000 EVs in North Carolina, Duke Energy points out that this number includes Plug-In Hybrid Electric Vehicles, and therefore overstates the progress toward the 80,000 goal, which has been defined as zero-emission vehicles and does not include Plug-In Hybrid Electric Vehicles. In response to NCCEBA's criticism that the competitive operators can simply expand infrastructure as the market grows, Duke Energy points out that Greenlots states that the market currently has only 43 public fast charging stations in North Carolina. Duke Energy adds that North Carolina is not on track to meet Executive Order 80's goal, and that the goal requires EV sales growth to be exponential over the next 5 years, increasing zero-emission vehicles in operation by more than 10 times. Duke Energy argues that many forms of investment are needed to get there, and strong utility programs are one part of the larger holistic framework needed.

In response to criticism that Duke Energy's status as a public utility creates an unfair competitive advantage in a developing market, Duke Energy compares the developing EV market to the development of high-speed internet. The internet is a competitive service under both Federal and State law. Nonetheless, incumbent companies were not excluded from that deregulated market. Rather, subject to regulatory oversight, they were committed to compete for customers along with new market entrants. In many cases, new entrants leased infrastructure that resulted in the creation of a wholesale market for telecommunications companies and a large number of reseller competitors at the retail level. These new wholesale markets created a new revenue stream for telecommunications

companies and attracted new competitors into the market. In most areas today, the communications markets are robustly competitive. Duke Energy states that even NCSEA acknowledges that Duke Energy has more knowledge of the grid and the need for upgrades than anyone else. Given that level of expertise, Duke Energy states that excluding or limiting it from the marketplace makes no sense.

Intervenors' Reply Comments

In their Reply comments SACE and NCJC reiterate their support for the ET Pilot with their previously requested modifications. SACE and NCJC disagree with the Public Staff that sufficient information will be publicly available without the ET Pilot. SACE and NCJC state that public information will not be specific to the Companies' customers and service territory in the State. SACE and NCJC support the inclusion of EV specific tariffs in the program. SACE and NCJC expand their position on increased reporting requirements to include an independent evaluation, measurement and verification ("EM&V") process that should be included in the Companies' budget for the proposal.

In its reply comments the Sierra Club disagrees with the Public Staff's opposition to the ET Pilot. First, Sierra Club rebuts the Public Staff's position that the ET Pilot program is unnecessary because publicly available data either exists or will exist, by highlighting that there are state-specific variations in the EV market, housing stock, customer demand, and utility operations. Next, Sierra Club questions the Public Staff's argument that other states that have initiated pilots will provide enough information for North Carolina. Sierra Club argues that the opposite is true and that the number of states initiating pilots shows the necessity of state specific data. Sierra Club reiterates its recommendation for increased reporting of information under the Pilot.

In its reply comments, ChargePoint agrees with the argument put forth by the Public Staff, NCSEA, and NCCEBA. ChargePoint also notes that SACE and the NCJC admitted the ET Pilot would give the Companies a substantial stake in the EV charging market, including a majority of the fast charging stations.

In its reply comments, Greenlots reiterates its strong support and recommends approval of the Companies' Pilot Program as proposed, without delay or change in size or scope. Greenlots argues that delaying or not providing drivers with these resources and more charging options would actually compound the fragile market conditions that parties advocating for delay critique. According to Greenlots, the reality remains that the private EV charging marketplace alone cannot adequately meet North Carolina's transportation electrification and emissions goals, let alone achieve market transformation or maximize future growth and associated benefits. Greenlots emphasizes that only 43 public fast charging stations exist in the State, contradicting any notion of a first mover advantage. If the market saw a sustainable, viable business model given the levels of EV penetration it would have seized upon this supposed advantage. Greenlots argues that the market void stems largely from the fact that private equity funded development often requires rapid and high returns on investment that can be at odds with capital investments such as public EVSE. Additionally, Greenlots states that private market EVSE development and utility EVSE development is not a zero-sum game, and that there is an additive nature of utility investment. Greenlots encourages Duke Energy and the Commission to consider ways in which the Pilot Program can be enhanced to both incorporate and evaluate smart charging and other load management strategies to a greater degree.

November 21, 2019 Hearing

On November 21, 2019, the Commission held a hearing to obtain additional information on the public interest and ratemaking implications of Duke Energy's proposed pilot program. For Duke Energy, Lang Reynolds, the Director of Electric Transportation, and Laura Bateman, Director of Carolina's Rates and Regulatory Strategy group, appeared as a panel to respond to questions from the Commission.

Witness Reynolds testified that first and foremost the objectives of the ET Pilot are to gather data around the impacts of electric vehicle charging across the system from multiple types of electric vehicles. (T. at 13.). Additional objectives are to advance market adoption of electric vehicles and to support the Governor's Executive Order 80's goal of having 80,000 electric vehicles on the roads of North Carolina by 2025. In addressing criticism that the goals of the ET Pilot lacked specificity, witness Reynolds stated that, in an emerging market such as this one, technology evolves every day. Consequently, Duke Energy needs more data to understand the market that its customers will participate in, and utility investment is needed to support advanced market growth. (*Id.* at 14.)

In response to a question about whether the number of pilots instituted by DEC and in other jurisdictions provided sufficient data, witness Reynolds stated that DEC's Charge Carolinas project in 2012 was a research study that gathered data from two types of vehicles. Since that time, those vehicles have become a very small part of the market. According to witness Reynolds, the charging impacts of vehicles is greater than from those early models. (*Id.* at 15.) Additionally, witness Reynolds stated that different geographies, demographics and traffic patterns all impact the charging of electric vehicles, and specific

data from Duke Energy's customers is required in order to address future programs that can be designed around electric transportation. (*Id.* at 15-16.)

Witness Bateman testified that the utility is uniquely positioned to lay foundational infrastructure for fast charging stations and that eventually there will be system benefits for utility customers due to more efficient use of the electric system. To the extent that the programs would create some cross-subsidization in the initial years, witness Bateman likened it to the Job Retention Rider and the Economic Development Rider, which also involved subsidization at the initial level. Similar to those Riders, the ET Pilot in the long run will result in those utility customers reaping the benefit of more efficient use of the system, with more kilowatt hours on the respective Companies' systems that fixed costs can be spread over, leading to lower rates and costs per kWh for all customers. (*Id.* at 17-18).

In response to a question concerning the lack of metrics for success in the ET Pilot, witness Reynolds recounted the Companies' reply comments that they were willing to identify specific metrics for each of their seven proposed ET programs comprising the ET Pilot. Consistent with their ET Pilot, the Companies seek to identify the costs and benefits of each of the seven programs and to use the resulting data to understand the impacts of each program on the utility systems. (*Id.* at 18.)

Commission Chair Mitchell asked witness Reynolds to respond to the suggestion of other intervenors that the residential rebate amount be halved from \$1000 to \$500. Witness Reynolds responded that the level of rebate in those programs is set an appropriate level based on the cost of purchasing and installing a Level 2 charger at a residential location. He noted that in the Companies' reply comments, in response to concerns raised

by intervenors, they had offered to reduce the level to \$500 if the Commission deems it necessary, but did want to be able to determine later if that impacted the level of subscription necessary to obtain the data needed from the ET Pilot. (T. at 21-22)

In response to Commission questions regarding the lack of experimental rate design component, witness Reynolds explained that the first year of the residential ET charging program would be baseline data gathering, and the next two years are designed to explore charge management. Witness Bateman added that the Pilot contained ways to encourage off-peak charging because several of the programs had load control aspects to them, and several also require the customer to be on the TOU rate option. Witness Reynolds and witness Bateman agreed that the pilot would inform what types of mechanism work with different customer segments and that experimental tariffs are an option that would come out of the E Pilot once it was complete. (T. at 22-23.)

When questioned about Duke Energy's proposal to remove two programs from the Pilot (L2 charging and multi-family), witness Reynolds stated that it was an effort to respond to concerns that the Pilot was too large and expensive. Witness Bateman testified that Duke Energy was still asking for approval of the whole Pilot as proposed, but that in the alternative, it would remove those two programs to respond to some intervenor's concerns. (*Id.* at 29.)

Responding to a question of whether Duke Energy could enroll customers who already had some type of electric vehicles in a program for study, witness Reynolds responded that the Pilot is designed to accomplish multiple goals simultaneously. The goals include gathering data and also encouraging new EV adoption. (*Id.* at 32.) Witness Bateman stated that the residential rebate program is one facet of encouraging EV adoption

and that providing a network of public charging station will give customers more comfort that they can travel across the state and charge their vehicle in different locations. (*Id.* at 36.) Witness Reynolds also testified that the cost of electricity is less than half the cost of gasoline and that the cost of electricity is around \$0.90 per gallon equivalent on a per-mile basis. (*Id.* at 45.) Witness Bateman added that time of use rate schedules can send signals to customers to encourage off-peak charging. (*Id.* at 46.)

In response to a question about whether Duke Energy would be able to learn about school bus batteries serving as a back-up source during an outage with few batteries from which to pull energy, witness Reynolds testified that the goal of that program is to learn whether this can be accomplished. Witness Reynolds stated that the technology is new and that there are not any zero emission electric school buses on the road in North Carolina. (*Id.* at 39.)

With regards to whether the first-come, first-served basis for participation was appropriate for the program, witness Reynolds stated that first-come, first-served balanced the needs of reaching a geographically dispersed sample and the expediency of having the programs fully subscribed. (*Id.* at 40-43.)

When questioned about whether Duke Energy could use an unregulated subsidiary to create needed infrastructure, witness Reynolds responded that the DC fast charging infrastructure contemplated under the Pilot, such as along the highway corridor, is not profitable on a stand-alone basis. (*Id.* at 49.) Witness Bateman agreed, stating the usage is not enough to make it economical or profitable for an unregulated provider to invest and that the utility has a unique opportunity to play a role in making that initial investment. Addressing concerns as to whether the utilities' knowledge of the grid would provide an

uneveled playing field for competitors, witness Bateman testified that the intent of the ET Pilot is to provide a foundational level of infrastructure to jumpstart the market. Jumpstarting the market does not preclude unregulated, competitive performers from entering afterward. (*Id.* at 51.)

Witness Bateman testified that there are numerous benefits for all customers including customers that did not have electric vehicles under the Pilot, such as environmental benefits. She further explained how the EV adoption could lower the cost per kWh usage for all DEC and DEP customers. Witness Bateman noted that if the utilities were able to encourage off-peak charging, then fixed costs on the system would not be increased, and the system would have additional kilowatt hours over which to spread those fixed demand costs. This would result in lower cost per kWh for all customers on the system. (*Id.* at 52-53.)

When asked whether Duke Energy could participate in a make-ready concept set forth by some intervenors, witness Reynolds testified that the utilities already require commercial DC charging stations to pay small amounts in terms of contributions in aid of construction, and that practically speaking the utility is already socializing the majority of the cost of the utility side of the meter. Witness Reynolds testified that Duke Energy is proposing to own and operate the DC fast charging stations to ensure stations are well-maintained and operable for the full life of the asset. With a make-ready program, the utility puts in the make-ready infrastructure and has no recourse afterwards to ensure the station is useful or in good shape. (*Id.* at 75-76.) Witness Bateman testified that if the ET Pilot was limited to a make-ready program, the costs would still range from \$41 to \$64 million.

On questions from the Public Staff, witness Reynolds stated the costs of the Pilot were proportional in size to pilots in other states, such as South Carolina. (*Id.* at 89, 93.) Additionally, with respect to the Public Staff's comparison of the costs of Duke Energy's North Carolina ET Pilot with the Duke Energy ET program in Florida, witness Reynolds clarified that there was only one Duke utility operating in a smaller area in Florida, where North Carolina has a larger area with two separate Duke Energy utilities operating the ET Pilot (T. at 99.) With regard to a question from the Public Staff concerning whether the Company appeared to be asking for pre-approval of infrastructure, witness Bateman answered that, with a program of this significance, Duke Energy needed to get direction from the Commission whether this is a proper investment for the utility to make this foundational level of infrastructure. (*Id.* at 94.) Witness Bateman compared this proceeding to two other fairly common Commission proceedings. First, witness Bateman compared this request to a Certificate of Public Convenience and Necessity, in which the utility builds a new transmission line or a new generation plant. The certificate does not guarantee cost recovery. Instead, the certificate shows that the Commission thinks building this plant has been justified. The prudence and reasonableness of those costs are still subject to review in a general rate case when cost recovery is sought. (*Id.* at 95.) Next witness Bateman noted that the Companies seek approval of demand-side management and energy efficiency programs prior to implementing them, with the prudence of those costs subject to later review by the Commission in a cost recovery proceeding.

Settlement Among ChargePoint, DEC and DEP

On February 28, 2020, DEC, DEP and ChargePoint filed a proposed settlement of certain outstanding issues relating to whether the fast charging ET Pilot as filed would

delay the development of a competitive market for EV charging in North Carolina. To address the issue, the settlement provides that customers would instead have more choice in their charging providers. Specifically, for the Residential program, participating customers will have unlimited choice of level 2 EVSE hardware.

With respect to the EV School Bus Charging Station Program, the settlement provides that EVSE will be installed on the customer side of the meter, with participating customers having a choice of two or more vendors of EV charging hardware and software. The hardware and software will be prequalified by the Companies to meet functional requirements. For the Fast Charging Program, the settlement provides that the Companies will install, own, operate and maintain DC fast chargers throughout the ET Pilot term. There will be a minimum of 2 DC fast chargers per location capable of charging a single vehicle at a combined 100 kW or more (“DCFC Location”). Participating site hosts shall have a choice of at least two vendors of EV charging hardware and software, which shall be prequalified by the Companies to meet functional requirements. To mitigate any impact to the cost of the Pilot associated with host choice, the settlement calls for the Companies to establish by RFP a base option for the hardware and software, and the site host will be responsible for any incremental cost above the base option. The Settlement defines “base option” as total cost, reflective of all hardware costs for each DCFC location, including activation and other costs and the total cost to manage all network, software, and connectivity services for five years for each DCFC location. To maintain an open market, according to the Settlement, no single vendor of EV charging hardware shall have more than 60% of the total installations. Once a percentage share for any single vendor of EV charging hardware exceeds 50% in a DEC or DEP service territory, either DEC or DEP, as

applicable, will notify the vendor that it is approaching the threshold and establish a waiting list of customer applications for that vendor to be considered should other projects with other vendors not come to fruition. In addition, site hosts will have the option of creating alternative pricing mechanisms for drivers, which, for purposes of the ET Pilot, may not exceed the Fast Charge Fee by more than 20%. Site hosts shall be responsible for any shortfall between the actual price charged to drivers and the Fast Charge Fee, which will ensure that neither DEC nor DEP will incur any additional costs from what is projected in the ET Pilot. For the Transit Bus Charging Program, participating customers shall have a choice of two or more EV charging hardware and software vendors, which shall be prequalified by the Companies to meet functional requirements.

The Settlement also provides procedural mechanisms to enhance Commission review, oversight and stakeholder engagement. First, the Company shall provide annual reports on: (i) the number of site hosts flowing through Fast Charge Fees to drivers, the number of site hosts using alternative pricing, as well as aggregate amounts of such fees collected by charger by year and (ii) data on the aggregate amount collected under such arrangements by charger by year, as provided by the site hosts offering alternative pricing mechanisms for drivers. Next, no later than three months after the ET Pilot is approved, the Companies agree to convene a series of collaborative meetings with stakeholders (“Electric Transportation Collaborative”) to present interim ET Pilot progress and results and to gather feedback on the ET Pilot. The Companies agree to utilize the knowledge gained from the ET Pilot to be key inputs to the Comprehensive Rate Design Study to evaluate and develop effective rate design offerings for customers with EV. Additionally, the Companies commit to discuss ET Pilot results and EV rate design as a regular topic

with the Electric Transportation Collaborative to garner stakeholder feedback into development of future EV rate structures and pricing programs.

Conclusions

Based upon the foregoing and the entire record in this proceeding, the Commission concludes that Duke Energy's ET Pilot is in the public interest, promotes the policy of the State of North Carolina as enumerated in N.C. Gen. Stat. §62-2, Sessions Law 2019-132, Executive Order 80 and should be approved. The Commission notes the significant number of letters and statements in support of the ET Pilot that it has received from the public. The Commission is persuaded that, while the costs of the program for each utility are significant, they are generally proportionate to similar proposals in other states, such as Maryland, and mitigate the risks to customers. Millions of EVs are being sold nationally, and the EV market is ahead of other alternative fuels for vehicles, such as CNG and hydrogen. Nationally, other jurisdictions are implementing programs and making similar investments in EV infrastructure. The Commission recognizes that the Public Staff prefers that the Companies utilize historical information and information from other states, arguing that there is no indication that North Carolina is particularly unique. The Commission disagrees. The historical information referenced in this matter was gathered in 2011 and 2014. The EV market has changed significantly since that time. The Commission also is aware that many states are engaged in similar efforts, apparently believing that there is a need to utilize state specific information. North Carolina is unique in many respects, and the Commission believes that it should foster North Carolina-specific learnings and results as other state Commissions have done in their jurisdictions. Although there is a possibility of a small increase in rates to customers, the Pilot's assets will be depreciated on a seven-

year period. As Witness Bateman testified, these costs would be allocated generally across all customer classes. The Commission notes that witness Bateman testified that starting in 2021 through 2025, the average cost of this Pilot is estimated to be \$0.15 per 1000 kWh and the peak amount would be \$0.22 in 2024. The average cost of this Pilot is significantly less than other programs approved by this Commission, such as the Job Retention Rider that is between \$0.40 to \$0.50 per 1000 kWh, depending on whether its DEP or DEC. (T. at 98.) The Commission appreciates the concerns expressed by the Public Staff about the potential impact of the program on customer rates. The Commission is always concerned about customer rates but, in this instance, must balance the relative small, short-term increase in customer rates with the overall public policy reasons that support approval of the plan. The Commission also notes, as Witness Bateman testified, the program has the potential to increase sales, which ultimately will result in economic benefits for customers. Such sales will improve the efficient use of the electric system and as sales are increased, particularly during off-peak times, they will increase the units over which fixed costs can be spread, resulting in lower prices per kWh.

While more information will be gathered as the project is implemented, the Commission agrees with Duke Energy that the Residential rebates are appropriately sized to offset the cost of the infrastructure. Similarly, the Commission also agrees that proposed Fleet rebates are appropriately sized to offset about half the cost of the EVSE because commercial and industrial customers are more able to bear the costs of the installations. In both cases, rebates are limited to a reasonable level of subscriptions that produces a reasonable sample size but also mitigates economic impacts.

The Commission is aware that some parties have expressed concern about the school bus aspect of the proposal but also notes that there are currently no electric school buses in the State. Accordingly, the Commission is persuaded that it is appropriate to include EV school bus charging stations with a \$215,000 rebate per bus for 55 buses for DEC and 30 buses for DEP. Without this assistance, the Commission has some concern that school districts will be unable to invest in the technology at levels that are sufficient to determine if electric school buses are a viable option. It is beneficial and appropriate for the Companies, under this Pilot program, to study whether school bus batteries can serve as a back-up source of energy during an outage. Likewise, the Commission concludes that it is appropriate to include EV transit bus charging for 60 stations for DEC and 45 for DEP and contributions of \$75,000 per bus acquired in the last 24 months. The Commission believes it is important that the adoption of an EV transit bus element of the program will extend some benefits of electric vehicles to customers who do not own electric vehicles, while supporting electric vehicle transit bus adoption and enabling the companies to collect utilization and other load characteristics to understand potential grid and utility impacts. Some parties argue that allowing the Companies to participate in the EV market will be averse to the development of a competitive market, even though the General Assembly clearly indicated that public utilities should not be excluded from participation. The reality is that at this point, the market has not developed in a satisfactory manner, and other parties recognize that participation by the public utility section is critical to helping the market achieve critical mass. To the extent market power issues develop in the future, the Commission can address those issues as needed.

As for the multi-family charging program, the Commission concludes it is appropriate to approve this program as filed in DEP's and DEC's initial application. Although the Commission notes Duke Energy's willingness to remove all or parts of these programs to defray the cost of the Pilot, the Commission recognizes that the policy of the state of North Carolina is to increase adoption of EVs. To do so, it is imperative to remove obstacles to EV ownership. As such, the Commission does not view it as equitable to remove multi-family dwellings from the Pilot. Customers in multi-family dwellings who are inclined to own electric vehicles may not be able to participate in the residential charging rebate program. This program will remove obstacles to electric vehicle ownership in multi-family dwellings.

Lastly, the Commission recognizes the need for public charging infrastructure in North Carolina. Therefore, the Commission approves the public L2 charging program and the DC fast charging station, as proposed in DEC's and DEP's application. The Commission is persuaded that Duke Energy's plans to establish rates based on market prices should help maintain competitive neutrality. Nonetheless, the Commission has authority to exercise oversight as necessary to assure that the market develops fairly.

The Commission has reviewed and is familiar with the recommendations that some parties have made to the Companies' proposal. However, some of the proposed recommendations may be more appropriately considered after some experience has been gained from the program. With respect to including or developing specific EV rate offerings, the Duke Energy witnesses informed the Commission that they believed that the data obtained from the ET Pilot could serve to inform EV rate design and offerings. (T. at 22-23) The Commission notes that the Settlement among DEC, DEP and ChargePoint calls

for the convening of an Electric Transportation Collaborative and that other parties had suggested stakeholder engagement with the ET Pilot as well. Therefore, based on the Settlement and the significance of the EV specific rate offerings and design to the intervening parties, the Commission approves the Companies convening the Electric Transportation Collaborative no later than three months from the order approving the ET Pilot. Duke Energy shall use the information gained from the ET Pilot as key inputs to a Comprehensive Rate Design Study to evaluate and develop effective rate design offerings for customers with EVs. Additionally, Duke Energy shall discuss ET Pilot results and EV rate design as a regular topic with the Electric Transportation Collaborative to garner stakeholder feedback regarding the development of future EV rate structures and pricing programs. Furthermore, the Companies agreed at the hearing to engage with stakeholders such as SACE, the Public Staff, and the NC Justice Center to develop a robust EM&V. The Commission directs Duke Energy to include development of the EM&V in the discussions of the Electric Transportation Collaborative. Finally, EDF has suggested that the Commission approve on-bill financing programs. The Commission has rejected such proposals in the past because they subject utilities to an entirely different set of lending regulations, which will only increase the cost of the program. The Commission declines to approve on-bill financing programs for EV buses as recommended by EDF.

With respect to providing rebates on a first-come, first-served basis, however, the Commission accepts the ET Pilot as filed. The Commission understands that providing rebates on a first-come, first-served basis is not always perfect. Establishing set-asides for specific customer classes before gathering information, however, could result in

underutilization of the parts of the plan and lead to over subscriptions in other parts of the plan.

With respect to the Settlement among DEC, DEP and ChargePoint, the Commission finds that it is in the public interest because it allows for additional participation in the ET Pilot in response to concerns expressed by intervenors on the effect the ET Pilot had on competition in the EV charging market in North Carolina.

Consistent with its role under N.C. Gen. Stat. § 62-2, the Commission will maintain oversight of the ET Pilot program and is not granting any cost recovery in this docket. To the extent DEC and DEP seek to recover the costs of the Pilot, the Commission expects the Companies to demonstrate that the costs of the Pilot were reasonable and prudently expended. The Commission will issue further orders at that time, as appropriate.

IT IS, THEREFORE, ORDERED as follows:

1. That the Proposed Electric Transportation Pilot Programs are hereby approved as described herein, effective this date;
2. That no later than 90 days from the date this Order is issued and for the duration of the ET Pilot, the Companies shall convene an Electric Transportation Collaborative where it will present interim ET Pilot progress and results to gather feedback from stakeholders in the ET Pilot. The Collaborative shall meet at least annually. The Collaborative shall discuss EV rate design and develop a robust EM&V process.
3. That Duke Energy shall use the knowledge gained from the ET Pilot as key inputs to a Comprehensive Rate Design Study to evaluate and develop effective rate design offerings for customers with EVs.

4. That the modifications to the ET Pilot as outlined in the Settlement among DEC, DEP, and ChargePoint are approved.

5. That the Companies shall file a report on the status of participation, the costs incurred to date, and any notable observations or trends on how participants are using the technology associated with the Pilots. The report shall be filed annually, with the first being filed six months after the initiation of the Pilots.

ISSUED BY ORDER OF THE COMMISSION.

This the __ day of _____, 2020.

NORTH CAROLINA UTILITIES COMMISSION

Kimberley A. Campbell, Chief Clerk