

**BEFORE THE NORTH CAROLINA UTILITIES COMMISSION  
DOCKET NO. E-2, SUB 1197  
DOCKET NO. E-7, SUB 1195**

**In the Matter of:** )  
**Application by Duke Energy Carolinas,** ) **NCSEA’S INITIAL COMMENTS**  
**LLC and Duke Energy Progress, LLC** ) **ON PHASE II PILOT PROPOSALS**  
**for Approval of Proposed Electric** )  
**Transportation Pilot** )

**NCSEA’S INITIAL COMMENTS ON PHASE II PILOT PROPOSALS**

Pursuant to the North Carolina Utilities Commission’s (“Commission”) *Order Requesting Comments on the Proposed Revised Pilot Programs* issued on June 14, 2021 (“Order”), the North Carolina Sustainable Energy Association (“NCSEA”), an intervenor in the above-captioned proceeding, offers the following initial comments on *Joint Request by Duke Energy Carolinas, LLC and Duke Energy Progress, LLC for Approval of Phase II Electric Transportation Pilot Programs* (“Application”) filed by Duke Energy Progress, LLC (“DEP”) and Duke Energy Carolinas, LLC (“DEC”) (DEP and DEC collectively “Duke”) on May 24, 2021, which proposes Phase II Electric Transportation Pilot Programs (“Phase II Pilots”).

As set forth more fully below, NCSEA sees upside in the Phase II Pilots, but believe some changes are necessary to make the program well-tailored, cost-effective, and prompting the continued adoption of electric transportation (“ET”) across the state. Accordingly, NCSEA has separate these comments into two sections: (1) where NCSEA sees improvements necessary for successful ET pilot programs; and (2) where NCSEA thinks the current proposal will stimulate ET adoption and effectively utilize rate base investment.

**I. NCSEA BELIEVES THE FOLLOWING CHANGES SHOULD BE MADE TO THE PHASE II PILOTS.**

NCSEA is firmly supportive of an ET pilot in North Carolina, however some changes are necessary. The proposal from Duke for the Phase II Pilots is not sufficiently transparent and backed by data and needs third party oversight into that analysis. The Phase II Pilots are too concentrated on Duke-owned infrastructure and NCSEA believes that Duke should follow best practices established in other states which have resulted in a healthy and robust ET infrastructure buildout where the utility enables the market rather than dominates it. The development of tariffs for customers should plainly incent off peak charging and seek to make ET less costly than internal combustion engine (“ICE”) counterparts. Finally, the siting of ET infrastructure should be informed by data and enable the market.

**A. DUKE’S PHASE II PILOTS NEED ROBUST EM&V ANALYSIS.**

NCSEA would encourage the addition of an Evaluation, Measurement, and Verification (“EM&V”) process to maximize values and benefits further. EM&V is essential to ensuring pilot learnings are captured and that ratepayer investments maximize long-term value and benefits for all. Sharing EM&V findings with regulators and industry stakeholders through a formal and transparent process further supports effective industry-wide growth and development.

In the initial ET Pilot proceeding, Duke agreed to EM&V protocols (“The Commission notes that Duke agrees in its comments to commit to an evaluation, measurement, and verification (EM&V) analysis of the impact of all segments of the ET Pilot to ensure that the goals of the Pilot are met and to engage an expert in how the

programs can be evaluated.”<sup>1</sup>). However, Duke does not detail how EM&V for the Phase II Pilots will be occur. To ensure the best use of ratepayer funds, and to ensure that the next phase of ET proposals are developed in manner that builds off the best practices of Phase II, there should be a robust reporting structure and metrics.

To that end, NCSEA would also recommend that any EM&V efforts are led by a credible third party. It is a best practice in EM&V review for a third-party entity to provide unbiased review and analysis. NCSEA would encourage the Commission to require that Duke commit to robust and transparent EM&V procedures overseen by an independent third party. NCSEA can help to connect Duke to entities who can provide those third-party EM&V services, if necessary.

**B. DUKE’S PROPOSED OWNERSHIP MODEL DOES NOT FOLLOW BEST PRACTICES.**

In its Initial Comments on the initial ET Pilot proposal, NCSEA opposed Duke’s proposal to utilize ratepayer funds for its proposed capital investments and instead advocated for a robust Make Ready Program to allow for the electric charging marketplace to have the chance to flourish.<sup>2</sup> NCSEA was grateful for and supportive generally of Duke’s recently proposed Make Ready Programs.<sup>3</sup> However, NCSEA remains concerned about an ownership model where Duke can recover substantial investments in the Phase II Pilots via rate base. As noted in NCSEA’s prior ET Pilot comments, the ability for the utility to recover its ET charging infrastructure investments via rate base gives it a competitive advantage over other market participants.<sup>4</sup> Moreover, and perhaps more importantly, Duke

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<sup>1</sup> *Order Approving Electric Transportation Pilot, In Part*, p. 21 (November 24, 2020) (“Order On First ET Pilot”)

<sup>2</sup> *NCSEA’s Initial Comments*, pp. 2-11 (July 5, 2019).

<sup>3</sup> *See, NCSEA’s Initial Comments on Make Ready Credit Programs* (July 8, 2021).

<sup>4</sup> *NCSEA’s Initial Comments*, pp. 10-11 (July 5, 2019).

has not provided sufficient transparency and data, along with proposed public charging locations, to allow intervenors and the Commission deduce whether the Phase II proposed pilots will assist the ET charging marketplace it or handicap it.

NCSEA is not broadly opposed to ET pilot programs where some investments are recovered through the utility's rate base. As mentioned above, the Make Ready Program falls in the scope of a program that enables the marketplace, both at a consumer level and without damaging the ability for other companies to compete to provide the infrastructure services. Duke has not provided data to the Commission to show that the siting of the ET charging infrastructure helps to fill in gaps in the marketplace. As noted in the Order on First ET Pilot, the Commission charged Duke with leveraging other funding: "Pilot programs should encourage or require the use of third-party funding (private, federal, state, municipal, grants) wherever it is available. Programs should also encourage ownership and operation partnerships that provide the greatest benefit to customers."<sup>5</sup> NCSEA firmly believes in the importance of marketplace structure to allow for maximum benefit to downstream consumers. This means carefully tailoring the size and scope of any ET pilot programs to avoid hobbling the ET charging marketplace and causing captive ratepayers to pay more than necessary to stimulate the underlying goals of the pilot program.

One state where this competition and cost concern was addressed was in New Jersey. There, the consumer advocate sought to limit utility investment in ET charging infrastructure to areas within New Jersey which were defined as "last resort".<sup>6</sup> An area of last resort was defined by the State of New Jersey Board of Public Utilities as:

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<sup>5</sup> Order on First ET Pilot, pp. 20-21.

<sup>6</sup> *See*, <https://www.nj.gov/bpu/pdf/boardorders/2020/20200923/8F%20-%20ORDER%20Electric%20Vehicle%20MFRs.pdf> (Last checked July 28, 2021).

In areas where installation of publicly-accessible EV chargers has not yet materialized, [electric distribution companies or “EDC”] may then, and only then, own and operate EV Chargers and EVSE as a “Last Resort.” Areas of Last Resort are locations that have not generated private investment interest for a minimum of 12 months after the EDC program has begun, for overburdened communities, or 18 months for other areas. This approach bridges Staff’s desire to maximize the investment of private capital into the EV Ecosystem, while also ensuring that areas within the State are not forced to languish without EV infrastructure.<sup>7</sup>

NCSEA believes that a “Last Resort” type overlay on the Phase II Pilot proposals would allow for the burgeoning ET infrastructure industry to continue to grow within the marketplace while also allowing for Duke to fill in gaps where the market is not providing charging infrastructure. As already noted, robust data reporting and EM&V review will allow for successful ET Phase II Pilot Programs. This would also inform where Duke could fill in the gaps of public charging infrastructure. Some of those gaps could come in the form of Low and Moderate Income (“LMI”) community chargers. NCSEA supports a data-based analysis on where charging gaps may occur and believes an overlay of the New Jersey model may provide the opportunity for an ET charging marketplace to develop in areas where data does not support Duke-owned infrastructure insertions.

NCSEA acknowledges that New Jersey is not a perfect comparison for North Carolina. New Jersey’s utility and statutory frameworks are different than North Carolina. North Carolina is a much larger state by geographic size and New Jersey has higher population density and less rural area. The New Jersey model utilizing “Last Resort” determinations may not be a precise fit for what North Carolina needs. In fact, NCSEA recognizes the dangers associated with barring utility ownership of ET infrastructure. This issue arose in California in 2011 when the California Public Utilities Commission chose to

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<sup>7</sup> *Id.* at 21.

bar utility ownership of ET infrastructure in its implementation of new law seeking to increase ET adoption across the state.<sup>8</sup> Within three years, the California Public Utilities Commission had reversed course on this decision, and instead elected to begin to allow for data-supported utility programs which included ET infrastructure.<sup>9</sup> This learning curve in California ultimately led to ET programs in utility territories which are now considered “best practices” study cases in advancing consumer adoption of electric transportation without handicapping the marketplace via large scale utility-owned ET infrastructure paid for through the utility’s rate base.<sup>10</sup> In fact, Southern California Edison is considered a leader in pairing marketplace participants with needed charger infrastructure in a cooperative relationship between the utility and the ET charging companies.<sup>11</sup>

Again, California is not a perfect comparison for North Carolina for some of the same reasons as New Jersey. But North Carolina could take note of the collaborative relationship between the utilities and third-party market participants to enable the buildout of market infrastructure. Similarly, North Carolina could learn from both California and New Jersey about the importance of a data-driven ET infrastructure buildout. Most importantly, a collaborative process where Duke does not see itself as a market participant but rather as a market assistant would ultimately benefit the citizens of North Carolina the most and cost the ratepayers less than any bloated, utility-dominant ET infrastructure buildout model.

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<sup>8</sup> [https://docs.cpuc.ca.gov/PublishedDocs/WORD\\_PDF/FINAL\\_DECISION/139969.PDF](https://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/139969.PDF) (Last checked July 28, 2021).

<sup>9</sup> <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M143/K682/143682372.PDF> (Last checked July 28, 2021).

<sup>10</sup> <https://www.utilitydive.com/news/how-californias-utilities-are-planning-the-next-phase-of-electric-vehicle/435493/> (Last checked July 28, 2021).

<sup>11</sup> <https://www.utilitydive.com/news/utilities-charger-vendors-find-interconnection-best-practices-to-propel-ev/549593/> (Last checked July 28, 2021).

C. ANY TARIFF FOR EVs SHOULD BE DESIGNED TO ENCOURAGE OFF-PEAK CHARGING AND SHOULD MAKE EVERY EFFORT TO KEEP CHARGING COSTS LOWER THAN THE PRICE OF GASOLINE.

NCSEA is concerned that the tariff proposed by Duke is overly complicated and, rather than being modelled on the lighting tariffs in the Duke territories, it should be modelled on one of the best practice utility tariffs, such as those used in Southern California Edison<sup>12</sup> or San Diego Gas & Electric.<sup>13</sup> The most important point when creating an ET pilot tariff is designing such a tariff in a way to encourage off-peak charging and to have the price be kept as low as possible in such a way to allow for the use of an ET vehicle to be less expensive than an ICE vehicle in the same class. Duke's proposal does not, on its face, provide these things and, accordingly, NCSEA would request that the Commission direct Duke to review the tariff models mentioned above and revise their proposed tariff to incentivize off-peak charging and allow for the lowest possible price.

Alternatively, should the Commission allow for Duke to utilize this tariff model that Duke has proposed, then NCSEA requests further information. Duke's proposed Customer-Operated EV Supply Equipment ("EVSE") Tariff Pilot "will be available to individual customers for electric vehicle chargers and charging infrastructure at locations on either DEC's or DEP's distribution system. Once installed, the charging station will be customer operated."<sup>14</sup> As noted above, Duke describes the EVSE Tariff Pilot as similar in structure to the Duke outdoor lighting programs which allow for new fixtures, poles, and other products which may, with Commission approval, be added to the tariff as extra

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<sup>12</sup> See, <https://www.sce.com/residential/rates/electric-vehicle-plans> (Last checked: July 29, 2021).

<sup>13</sup> See, <https://www.sdge.com/residential/pricing-plans/about-our-pricing-plans/electric-vehicle-plans> (Last checked July 29, 2021).

<sup>14</sup> Application, p. 11.

facilities.<sup>15</sup> NCSEA’s concern is that, if the EVSE model is akin to the outdoor lighting model, does that mean any infrastructure necessary to support the EVSE, such as a new substation or new wiring panel upgrade, would be paid for by site hosts? If so, this would be wholly unfair program with site hosts being potentially at the mercy of the status of the local grid. Therefore, NCSEA requests that the Commission require Duke to map out the details of this EVSE Tariff Pilot including what potential costs could be allocated to the site host, and, should Duke seek to have site hosts pay for grid-related upgrades, then NCSEA would request the Commission deny the EVSE Tariff Pilot and ask Duke to refile with a tariff designed under best practices as discussed above.

D. THE TARGET AREAS FOR THE PUBLIC LEVEL 2 PHASE II PILOT PROGRAM SHOULD BE MODIFIED TO INCLUDE DIFFERENT CRITERIA TO DETERMINE AN ELIGIBLE COMMUNITY.

To achieve an equitable distribution of charging infrastructure and to ensure that low-income communities have adequate access to charging infrastructure, Duke proposes to target 50% of the installations in rural Tier I and Tier II counties in North Carolina and 50% of the installations in low-to- moderate-income (“LMI”) communities. The criteria for a rural community are defined by four factors: (i) average unemployment rate; (ii) median household income; (iii) percentage growth in population; and (iv) adjusted property tax base per capita. Additionally, with respect to LMI customers, the Companies will use their Neighborhood Energy Saver energy efficiency program areas, where 50% of the households are at or below 200% of the federal poverty guideline.<sup>16</sup>

NCSEA is supportive of LMI inclusion in the ET Phase II Pilot plans so long as data supports decisions on location and types of chargers to service LMI customers.

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<sup>15</sup> *Id.* at 11-12.

<sup>16</sup> *Id.* at 15-16.

However, Duke's criteria here provide a basis for charging location based upon local poverty related issues but do not appear to modify the charging infrastructure and do not provide a data based analysis on the factors included in this siting. As set forth more fully below, consumers at lower income rates may be more inclined to adopt used ET which may not be equipped to receive upper-level charging infrastructure (that Duke's Phase II Pilot programs include, so NCSEA would request that Duke lay out its myriad of charging options that it plans to provide LMI customers and, if possible, provide the data which supports the siting decisions for these different charger options. This would allow the Commission and intervenors to review a more transparent process with an eye towards user needs.

Moreover, some of NCSEA's member companies have indicated that the criteria provided by Duke might not be the most effective way to design a program intended to fill charging gaps rather than usurp market status. NCSEA believes that the thorough data analysis and EM&V which is has recommended in this filing could lead Duke through a more narrowly-tailored, lean, and appropriate LMI structure which will still fill the void of charging and lessen concerns over "charger deserts". NCSEA would also like to volunteer to connect Duke with third party entities which can help to site chargers of all levels in appropriate, data-backed areas in the state which will provide the most benefit to North Carolina and its ratepayers.

E. THE MULTI-FAMILY LEVEL 2 PHASE II PILOT SHOULD BE REDESIGNED TO MATCH THE END-USER, AND NOT BE FOCUSED ON THE EVSE TYPE.

The Multi-Family Level 2 Phase II Pilot should be redesigned to match the end-user, the consumer driving the EVs, and should not be restricted to just deployment of Level 2 charging infrastructure. When an EV driver returns to the multi-family housing, the driver is likely parked overnight, indicating that charging could take place over 8+ hours. Level 1 charging is then sufficient to meet the needs of this EV driver based on average daily driving patterns of 30-40 miles a day or less. Level 1 charging can also be cheaper to install, and provide more charging ports, thus able to accommodate the charging needs of more EV drivers. If the objective is to provide charging to the greatest number of residents living in multi-family housing units, a combination of level 1 and level 2 charging would accommodate more drivers at less overall cost to install. Should there not be adequate parking for the EV driver at the multi-family unit, then faster charging provided through DCFC is needed to ensure EV drivers can charge up quickly and then move their vehicles so other EV drivers can utilize the charging. Ultimately, there isn't a one-size-fits-all solution to charging at multi-family units but providing more options in terms of the EV infrastructure that is eligible under this program would serve more use cases and parking situations.

F. THE INVESTMENT IN MARKETING AND OUTREACH FOR THE PUBLIC LEVEL 2 PHASE II AND MULTI-FAMILY LEVEL 2 PHASE II PROGRAMS IS APPROPRIATE BUT SHOULD BE SUPPORTED BY METRICS THAT DEMONSTRATE THE SUCCESS OF THE MARKETING AND OUTREACH PROGRAM.

Utilities are the missing piece in terms of education and outreach on EVs. The Alliance for Transportation Electrification and Plug In America released a whitepaper on

the need for utility investment in this sector.<sup>17</sup> The paper outlines eight key reasons for why utility investment is needed, and also outlines the best practices for this kind of investment. We support the suggested amount of about \$500,000.00 to invest in education and outreach, particularly for the rural and LMI customers. However, NCSEA still has concerns about large investments in education without proof of the investment succeeding. This investment should be supported by metrics that show the success of the educational program. Further, NCSEA believes that Duke should engage third party entities who specialize in community outreach and ET education to provide the most effective community education on ET. NCSEA believes that good consumer education will result in the most robust community adoption of ET.

G. THE HIGHWAY CORRIDOR FAST CHARGING PROGRAM SHOULD BE MODIFIED TO APPLY TO THE ENTIRE STATE, NOT JUST TIER I AND TIER II COUNTIES.<sup>18</sup>

While the intent to provide adequate charging in the Tier I and Tier II counties is certainly a desired goal, the focus should not be to deploy highway charging only in these counties. North Carolina electric vehicle drivers need adequate access to highway charging across the entire state, and the focus of Duke Energy should be to work with North Carolina Department of Transportation (“NCDOT”) to electrify the highways. This will result in adequate charging across the entire state. As more drivers in rural communities choose to drive EVs, Duke Energy could modify their target to the Tier I and Tier II counties for an increased deployment of charging stations – but adequate charging stations along highways around the state should first be the goal.

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<sup>17</sup> <https://pluginamerica.org/policy/utility-education-and-outreach-programs/> (Last checked July 28, 2021).

<sup>18</sup> NCSEA has previously argued that the DC Fast Charging Fee is single-issue ratemaking and barred as a matter of law from a pilot proceeding. See, *NCSEA’s Initial Comments*, p. 11. (July 5, 2019). NCSEA maintains its concerns that such a fee determination is illegal single-issue ratemaking.

Furthermore, considering the Volkswagen Settlement<sup>19</sup> and to avoid a duplication of charging infrastructure, Duke should coordinate and collaborate with other stakeholders and the NCDOT on the deployment of charging infrastructure around the state, particularly with the highway corridor charging program. If Duke is already collaborating in this manner (which Duke hints at on page 19 of the Application), NCSEA requests that Duke include in its reply comments a summary of such collaboration and efforts made to make sure that other ET electrification projects that are ongoing in the state would not overlap or otherwise make the Duke Phase II Pilots a less worthy investment for ratepayers.

**H. DUKE MUST BETTER DEFINE THE PARAMETERS FOR THE VEHICLE-TO-GRID PROGRAM FOR THE SCHOOL BUS BATTERY IN THE EV SCHOOL BUS PROGRAM.**

Under the EV School Bus Program description, Duke states that, “The school bus battery would be available for vehicle-to-grid dispatch when not in transportation service.”<sup>20</sup> Certainly, the school bus sector is producing vehicle-to-grid (“V2G”) capable electric bus models that can function as energy storage resources to ease stress on the distribution and transmission grid while the buses are parked and plugged in. However, Duke does not describe any further parameters of proposed V2G or generally Vehicle-Grid-integration (“VGI”) programs for the school buses. This V2G and/or VGI component should be further detailed before being approved by the Commission.

**II. NCSEA SUPPORTS THE FOLLOWING PHASE II PILOT PROPOSALS AND DECISIONS FROM DUKE.**

NCSEA enthusiastically supports an ET pilot in North Carolina, but, as set forth above, has some reservations. NCSEA does support a number of the Duke ideas and

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<sup>19</sup> See, <https://deq.nc.gov/about/divisions/air-quality/motor-vehicles-and-air-quality/volkswagen-settlement> (Last checked July 29, 2021).

<sup>20</sup> Application, p. 19.

proposals, though, and believes that Duke is on the precipice of a successful program should it make the changes proscribed herein.

A. NCSEA APPLAUDS DUKE FOR ITS EFFORTS IN KEEPING CUSTOMER COSTS LOWER BY PAIRING THE MAKE READY PROGRAM WITH THE PHASE II PILOTS.

As mentioned above, NCSEA supported the implementation of a Make Ready Program and recently filed comments that supported much of the Duke Make Ready Program proposal.<sup>21</sup> NCSEA applauds the stated effort by Duke to enable a “low up-front cost”<sup>22</sup> to make EVSE installation affordable for customers. NCSEA believes this principle aligns with the principles of the Make Ready program. In fact, subject to the above-stated objections, the Duke Phase II Pilots overall align with the recently proposed Make-Ready Credit Program for electric vehicle infrastructure. The objective of the make-ready credit program is to defray installation costs associated with EVSE to encourage and accelerate EV adoption. This make-ready credit will support the EVSE installation across market segments, as well as maintain a competitive market for installing charging infrastructure. The make-ready program does not overlap with the programs proposed in the Duke Phase II program. Together, the Phase II programs and the make-ready credit program will help to increase access and availability to charging infrastructure, which will encourage EV adoption. Studies performed in other service territories around the country do show the downward pressure on rates that results from more kWh used for EV charging.<sup>23</sup>

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<sup>21</sup> See, *NCSEA’s Initial Comments on Make Ready Credit Programs* (July 8, 2021).

<sup>22</sup> Application, p. 11.

<sup>23</sup> [https://www.synapse-energy.com/sites/default/files/EV\\_Impacts\\_June\\_2020\\_18-122.pdf](https://www.synapse-energy.com/sites/default/files/EV_Impacts_June_2020_18-122.pdf) (Last checked July 28, 2021).

B. NCSEA SUPPORTS QUARTERLY ET STAKEHOLDER MEETINGS.

Duke proposes to have ongoing ET stakeholder meetings to share data and resources on the programs. NCSEA supports these meetings on a quarterly basis and encourage that there be adequate representation from a range of stakeholders, including equity groups, rural groups, environmental organizations, as well as industry groups. NCSEA also thinks these meetings could serve as an avenue to discuss many of the topics discussed above which require ongoing data analysis.

**III. CONCLUSION**

NCSEA is encouraged by the utilization of the Phase II Pilots to further enable the success of the Make Ready Program. NCSEA supports continued stakeholder meetings, especially with the chance to review and analyze data and findings from third-party entities who can analyze data and provide the roadmap to the most successful version of a utility ET pilot program.

However, NCSEA sees extensive changes are needed to provide ratepayers a successful ET program and one that is based upon the best practices in utility ET infrastructure buildout. NCSEA would encourage Duke to make the changes suggested above, or, if necessary, clarify where these processes or issues are already being addressed. NCSEA looks forward to comment further in reply upon review of the other intervenors' initial comments.

Respectfully submitted, this the 29th day of July, 2021.

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I hereby certify that all persons on the docket service list have been served true and accurate copies of the foregoing document 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 29th day of July, 2021.

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