

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

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

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of)	
)	
Application by Duke Energy Carolinas, LLC And Duke Energy Progress, LLC)	REPLY COMMENTS OF GREENLOTS ON PROPOSED
For Approval Of Proposed Electric)	MAKE-READY CREDIT (MRC)
Transportation Pilot)	PROGRAMS

Pursuant to the *Order Requesting Comments* filed on May 28, 2021 by the North Carolina Utilities Commission (the “Commission”) in the above-captioned docket, Zeco Systems, Inc. d/b/a Greenlots (“Greenlots”), submits the following reply comments regarding the Proposed Make-Ready Credit Programs (“MRC Programs”) filed by Duke Energy Carolinas, LLC (“DEC”) and Duke Energy Progress, LLC (“DEP”), (collectively, “the Companies” or “Duke”) on April 30, 2021.

I. COMMENTS

- i. The amount of the credit should be increased for non-residential customers, and the calculation made more accessible and transparent.**

A fundamental gating question for a proposed incentive such as the MRC Programs should be whether the incentive is likely to achieve its intended outcome, which in this case is customer installation of make-ready facilities necessary to support EV charging. While it is logical to think that even a small incentive is better than none, or that customer adoption may track in a linear fashion with the amount of incentive offered, a more apt framework is binary: does the full combination of financial and other incentives achieve a certain threshold necessary for the customer to make the choice to proceed, or not? When

viewed through this lens, it becomes apparent that a relatively modest financial incentive may in fact be no more—or only marginally more—impactful than the lack of any incentive at all.

Public Staff calculated expected incentive amounts based on Duke's MRC Programs filing and determined the following:

[R]esidential customers would receive revenue credits ranging between 18% of the cost (for new or upgrade service) and 67% of the cost (for existing service). Non-residential Level 2 and DCFC EVSE would receive revenue credits that cover 11-14% of the cost (for new or upgraded service) to 14-23% of the cost (for existing service).¹

In Greenlots' experience, an offset of only 11% to 23% of make-ready costs for non-residential customers is by itself inadequate and unlikely to move the needle with many customers. For DCFC installations, the make-ready costs can often reach six figures and exceed the costs of the chargers themselves.

In order for the MRC Programs to achieve their intended results, the amount of the credit should be increased. Given the structure of the MRC Programs, one approach to accomplish this may be to design complementary incentives into a Phase 3 program that are not necessarily tied to the MRC Programs, but can be stacked with them for both residential and non-residential applications.

Greenlots also shares the view of other commenters that the credit calculation should be made more accessible and transparent to the customer in advance, to foster predictability and increase the likelihood of customer participation.²

¹ Initial Comments of the Public Staff at 4.

² See: CCEBA's Initial Comments on Make Ready Credit Programs at 2; NCSEA's Initial Comments on Make Ready Credit Programs ("NCSEA Comments") at 1.

ii. **MRC-financed public infrastructure should support interoperability and access.**

Greenlots believes it is indeed appropriate and warranted for the MRC Programs to establish certain requirements for public charging stations (i.e., publicly owned chargers and privately-owned chargers intended to be accessible by the public at large) financed by the MRC Programs, and specifically that these stations should be open to all users. This perspective differs at least in part from that offered by one commenter.³

Hardware/software interoperability and open standards such as open-source data protocols are all key components of responsible planning and deployment of infrastructure to support transportation electrification. At their core, open standards can facilitate a seamless driver experience, minimize infrastructure investment risks, and allow for the efficient integration of EVs into the electric grid. Utilizing open standards means that it is possible to connect an array of software, network, and utility IT systems with any charging station regardless of the vendor, via open and royalty-free protocols. Similarly, Greenlots encourages Duke and the Commission to support Tesla drivers, but recommends a prioritization of non-proprietary plugs/connectors for publicly-accessible chargers.

As more and more infrastructure is deployed over time and EVs are added to the roadways, the implications of competing, proprietary standards and networks become increasingly serious. Especially given the challenging economics for charging networks and deployments, and the solvency issues that plagued the industry's pioneers, proprietary hardware that does not support software flexibility increases the risk of stranded assets or systems that fail to meet evolving needs. Additionally, such networks limit innovation and competition in both the EV charging hardware and software space, as infrastructure owners

³ See NCSEA Comments at 4: the MRC Programs “should not dictate charger technologies.”

are limited in their selection of hardware to suit their varying needs and operational parameters, and in their ability to easily switch software systems.

The value of interoperability and open standards as it pertains to hardware/software interoperability is perhaps best illustrated by their absence. A simple review of Greenlots' current project portfolio includes several "rip and replace" projects where functional charging stations installed previously by another company are removed and replaced with software-enabled, open standards-based charging stations. Some of these existing charging stations were not software-enabled when first installed, thereby lacking even the potential to support open standards and interoperability. Other stations were software-enabled, but they did not support open standards and were locked into a particular vendor's proprietary communications ecosystem. This prevented the owner from integrating them into a different management platform and turned them into *de facto* stranded assets. This wastefulness, while unwelcome for any owner of charging stations, should be unacceptable for publicly-owned or accessible chargers financed by a regulated utility following Commission approval.

II. CLOSING

Greenlots appreciates the Commission's consideration of Greenlots' initial comments filed regarding the MRC Programs, and appreciates this opportunity to offer additional perspective. Greenlots looks forward to continued engagement in efforts to support electric transportation in North Carolina.

Respectfully submitted, this the 3rd day of August, 2021.

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CERTIFICATE OF SERVICE

I hereby certify that a true and exact copy of the foregoing document, has been served on counsel of record for all parties in this docket, by either depositing same in a depository of the United States Postal Service, first-class postage prepaid and mailed by the means specified below, or by electronic delivery.

This the 3rd day of August, 2021.

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