

DOCKET NO. E-100, SUB 161  
BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of:	)	
	)	
Commission Rules Related	)	
To Customer Billing Data	)	SUPPLEMENTAL REPLY COMMENTS
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Pursuant to the North Carolina Utilities Commission’s (“Commission”) April 22, 2022, Order, as subsequently amended, requesting Supplemental Comments and Supplemental Reply Comments in this docket, Mission:data Coalition (“Mission:data”) hereby files these supplemental reply comments on the issues and matters under consideration. Specifically, and for the reasons set forth below and in prior comments, Mission:data respectfully requests that the Commission approve the proposed Rule 8-51 on data privacy and data access that was included with and explained in Mission:data’s July 22, 2022 supplemental comments, recorded in this docket on July 26, 2022.

**1.     INTRODUCTION.**

The ability of customers to easily move or “port” their data from monopoly utilities to innovative providers of new energy efficiency or cost management technologies is more urgent now than ever. First, the United States Department of Energy (“DOE”) recently announced the availability of \$1.08 billion in grants for eligible electric utilities provided those utilities enable Green Button Connect (“GBC”). Federal grants of up to \$50 million per utility will be foregone and ultimately lost for each North Carolina electric utility that does not offer data portability. Proposed R8-51 provides a method for achieving and meeting DOE’s grant requirements.

Second, through the recently enacted Inflation Reduction Act (“IRA”), North Carolina will receive \$105 million in federal funds for verifiable, residential energy efficiency. The efficient use of these funds is dependent upon electronic, easy-to-use, machine-to-machine exchanges of customer energy data in order to both model and measure energy savings over time. As explained below, Mission:data urges the Commission to expeditiously adopt the proposed Rule R8-51 that was attached to its prior comments and supported by the North Carolina Attorney General’s Office (“AGO”). Doing so will enable North Carolina to take full advantage of incoming federal funds and simultaneously provide ratepayers the electronic tools needed for them to access innovative energy services and strategies that are not available from monopoly utilities.

## **2. Federal Funds**

In the past several months, two federal funding programs have been announced that offer opportunities totaling over \$5.3 billion in the aggregate. Both funding programs require customer data portability like that provided in Mission:data’s proposed R8-51, that is, there must be full data portability in an electronic and streamlined manner. The failure to adopt a rule, like R8-51, that incorporates these features will either disqualify North Carolina from receiving federal funding or result in significant administrative costs as thousands of consumers will seek and employ inefficient, paper-based data-sharing authorization processes in order to receive the federal energy efficiency funds. Moreover, acting now to address customer data portability will further benefit utilities and ratepayers because 50% of Green Button Connect implementation costs would be paid by the federal government, significantly undercutting any concerns about cost.

The first federal funding opportunity is from the IRA which in Section 50121 outlines a program known as Home Energy Performance-Based, Whole-House Rebates (“HOMES”). Pursuant to HOMES, \$4.3 billion will flow from the Department of Energy to State Energy Offices across the

country over the next 10 years for investments in residential energy efficiency. North Carolina's allocation is \$104,918,280.<sup>1</sup> Receiving this energy efficiency investment, however, is contingent upon efficiency validation through one of two means, both of which require customer data portability. First, "measured energy savings" gives homeowners \$2,000-\$4,000 for energy savings above 15%.

The measurement of energy savings is evaluated by using:

...open-source advanced measurement and verification software, as approved by the Secretary [of Energy], for determining and documenting the monthly and hourly (if available) weather-normalized energy use of a home before and after the implementation of a home energy efficiency retrofit.

The implementer of the efficiency measures – such as a heating, ventilation and air conditioning contractor – as well as the state energy office will need permission-based access to customer electricity and natural gas usage data, both historically and for at least one year into the future in order to determine energy savings. Any contractor chosen by the state energy office to administer this program will need access to customer energy data. Thus, with thousands or tens of thousands of requests from homeowners to be processed – especially requests that require continuous, ongoing access to energy data in order to deliver and validate the promised energy savings – the lack of electronic, ongoing, machine-to-machine data exchange will be simply unworkable for North Carolina. Despite the claims of Duke Energy Carolinas, LLC ("DEC") and Duke Energy Progress, LLC ("DEP") (collectively "Duke") in their July 22, 2022 joint supplemental comments, Duke's existing data access and data exchange offerings are not up to the task. Specifically, these programs are deficient and lack the ease of use, availability, and standardization of customer data formats that

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<sup>1</sup> <https://www.energy.gov/articles/biden-harris-administration-announces-state-and-tribe-allocations-home-energy-rebate>

are necessary to administer and validate residential energy efficiency and thereby gain access to the available federal funds.

The second federal funding opportunity is from the Infrastructure Investment and Jobs Act (“IIJA”), which was signed into law by President Biden on November 15, 2021. Section 40701 of the IIJA allocates \$3.0 billion for Smart Grid Investment Grants. On November 18, 2022, DOE issued a Funding Opportunity Announcement (“FOA”) across three topic areas. For Topic Area 2 which is in the amount of \$1.08 billion, DOE states:

A broad set of eligible smart grid investments and capabilities is allowed under statute, and any combination of smart grid investments and functions that support the objectives are eligible. **DOE will require that projects support data standards (e.g., Green Button Connect), interoperability, and non-discriminatory data access on a real-time basis** [emphasis added].<sup>2</sup>

Individual grants can be made up to \$50 million, per the DOE FOA and it would be truly unfortunate if Duke were unable to bring to that \$50 million to North Carolina for transmission improvements, distribution grid visibility enhancements, the integration of distributed energy resources (“DERs”), and resiliency investments to counteract extreme weather events simply because of its ongoing opposition to certain aspects of proposed R8-51. Indeed, despite many other utilities across the country supporting Green Button Connect (GBC) today and covering 37 million electric meters nationwide, Duke continues to reject GBC. Duke’s position is not merely an academic or philosophical matter, but will result in significant financial implications for North Carolina ratepayers. As such, in addition to quickly approving R8-51, Mission:data urges the Commission to

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<sup>2</sup> United States Department of Energy. Funding Opportunity Announcement DE-FOA-0002740, Grid Resilience and Innovation Partnerships (GRIP) at 20.

require Duke to explain how it intends to seek and utilize the aforementioned federal funds, particularly with regard to the necessary data portability.

**3. Duke's Failure to Adhere to Standards Highlights the Inadequacy of its Existing "Data Download" Options**

In its July 22, 2022 joint supplemental comments, Duke attempts to explain and justify how its existing offerings with "Customer Connect" are adequate to meet customer expectations. However, a brief empirical experiment with one of Duke customer's downloaded data file demonstrates the many flaws of Duke's arguments. Duke states:

...customers are presented with the 'Download my Data' option to allow them to download their energy usage details in a machine-readable format (eXtensible Markup Language, or 'XML') that enables the details to be utilized with other applications...

What Duke fails to mention is that its own Green Button Download My Data ("DMD") file format does not adhere to the Green Button standard, rendering it unusable for other applications.

The Green Button Alliance hosts a DMD Validation Tool at [dmdvalidator.greenbuttonalliance.org](https://dmdvalidator.greenbuttonalliance.org) and simply by uploading a sample file from a Duke customer, it is immediately evident that Duke's "machine-readable" file is idiosyncratic and does not comply with the Green Button standard. Indeed, the very first line of Duke's file format is noted as a non-conforming error by the DMD Validation Tool and consequently, if a customer were to try to upload this file into an energy management service – as Duke claims is possible – the attempt would fail. Duke's DMD file format may be "machine-readable" in the narrowest technical sense – yes, a computer can ingest the file – but only software that is uniquely designed and trained to accept Duke's unusual file format can actually make use of the information contained therein.

Duke's non-compliance with standards is emblematic of Duke's underlying misunderstanding of customer demands. Modern consumers increasingly expect the ability to access data and new

services at the click of a button. While Duke wants the appearance of meeting customer preferences, in practice Duke prevents the practical use of customer data outside of the utility monopoly. For example, despite 90 million U.S. consumers having a smart speaker, 73% of adults having a smartphone, and 35%-63% of consumers owning smart devices or appliances,<sup>3</sup> Duke does not provide any method for those devices or appliances to have meaningful access to the customer's energy data in an electronic and ongoing manner at the customer's request. The only solution Duke offers is a manual, time-intensive, idiosyncratic data format that is not interoperable with any known energy management service. The notion that customers will themselves, several times per day, download their data from Duke's website and upload it to their smart water heater or smart thermostat is absurd. Given Duke's unique file format, it is not surprising then that few customers have availed themselves of downloading it. The Commission should not view Duke's download statistics as representative of customer demands for this reason.

WHEREFORE, Mission:data respectfully requests that the Commission expeditiously approve R8-51. Mission:data also respectfully requests that the Commission require North Carolina utilities to explain how they intend to seek and utilize the federal funds discussed above, particularly with regard to data portability and the provisions of R8-51 concerning Green Button Connect.

Respectfully submitted this the 9<sup>th</sup> day of December, 2022.

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<sup>3</sup> *Smart Home and Energy Data: What Do Consumers Want?* Smart Energy Consumer Collaborative. June, 2021.

CERTIFICATE OF SERVICE

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

Respectfully submitted this the 9th day of December, 2022.

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