

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-100, SUB 153
DOCKET NO. E-100, SUB 157
DOCKET NO. E-100, SUB 161

DOCKET NO. E-100, SUB 153)	
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In the Matter of:)	
Commission Rules Related to Electric)	
Metering)	
)	
DOCKET NO. E-100, SUB 157)	
)	
In the Matter of)	
2018 Biennial Integrated Resource Plans)	COMMENTS OF
and Related 2018 REPS Compliance Plans)	ENVIRONMENTAL DEFENSE FUND
)	
DOCKET NO. E-100, SUB 161)	
)	
In the Matter of)	
Commission Rules Related to Electric)	
Customer Billing Data)	

The Environmental Defense Fund (EDF) supports both the Public Staff version of the rule language and the Mission:data version of the rule language, and submits the following comments regarding data access rules:

I. Background

As the deployment of advanced metering infrastructure (AMI) nears completion in Duke Energy Progress’s, LLC (DEP) and Duke Energy Carolinas’s, LLC (DEC) territory, EDF appreciates the efforts by the Commission and Public Staff to develop new data access rules that leverage AMI data and the customer benefits associated with smart meter investments including

energy savings through dynamic rate structures.¹ In particular, EDF appreciates the Public Staff's diligent efforts to gather input from stakeholders and exchange drafts of rule language in an effort to develop consensus and identify where parties' positions differed. These rules are very technical and the Public Staff's work to gather input from stakeholders and exchange ideas greatly improved the process as compared to the parties simply filing comments on the initial draft language.

Customers save on their energy bills when customers and authorized third parties have seamless access to actionable customer energy usage data. Building on a 2010 meta-analysis by the American Council for an Energy-Efficient Economy (ACEEE) multiple studies since then, by industry, academics and utilities have reinforced the case for easy customer data access to interval data indicating an energy savings potential of up to 18%.² At the last Duke Energy Carolinas (DEC) rate case hearing, NCSEA witness Michael Murray testified that this would be a savings of \$14.12 per month at DEC's proposed rates.³ Customers will not have this opportunity to save money unless the utilities provide data access. Customers pay for the full amount of the utilities' investments in AMI meters, Meter Data Management systems and Customer Information Systems. In fairness, customers should receive the full benefits associated with these technologies. This will happen only if the Commission adopts a practical data access rule.

Enabling customers to easily and securely access and share their energy data not only unlocks significant customer benefits, but will also aid in advancing North Carolina's commitment

¹PUBLIC STAFF'S COMMENTS ON SMART GRID TECHNOLOGY PLANS PUBLIC STAFF'S COMMENTS ON SMART GRID TECHNOLOGY PLANS Docket No. E-100, Sub 157, January 16, 2019, available at: <https://starw1.ncuc.net/NCUC/PSC/DocketDetails.aspx?DocketId=73a530c8-031b-4f4b-a13e-6950de5d51ce>,
²Michael Murray and Jim Hawley, 2016. "Got Data? The Value of Energy Data Access to Consumers." Mission: data Coalition and More Than Smart. Available at <http://www.missiondata.org/s/Got-Data-value-of-energy-data-access-to-consumers.pdf>

³ *In the Matter of Duke Energy Carolinas, LLC for Adjustment of Rates and Charges Applicable to Electric Service in North Carolina*, Docket No. E-7, Sub 1146 Hearing Tr. Vol. 26 at 406 (Michael E. Murray testimony).

to reducing statewide greenhouse gas emissions as called for in the North Carolina Clean Energy Plan released in October 2019.

II. The Commission Should Require Utilities to Follow Industry Standards for Data Access

The Commission rule on data access should require utilities to follow industry standards. A national industry standard exists for sharing customer energy usage data – commonly referred to as Green Button Connect My Data (GBC). Two national organizations oversee industry standards for the retail electric industry – the National Institute of Standards and Technology (NIST) and the North American Energy Standards Board (NAESB).

NIST describes itself as follows:

The National Institute of Standards and Technology (NIST) was founded in 1901 and is now part of the U.S. Department of Commerce. NIST is one of the nation's oldest physical science laboratories. Congress established the agency to remove a major challenge to U.S. industrial competitiveness at the time—a second-rate measurement infrastructure that lagged behind the capabilities of the United Kingdom, Germany, and other economic rivals.

From the smart electric power grid and electronic health records to atomic clocks, advanced nanomaterials, and computer chips, innumerable products and services rely in some way on technology, measurement, and standards provided by the National Institute of Standards and Technology.⁴

NAESB describes itself in this manner:

The North American Energy Standards Board (NAESB) serves as an industry forum for the development and promotion of standards which will lead to a seamless marketplace for wholesale and retail natural gas and electricity, as recognized by its customers, business community, participants, and regulatory entities.⁵

⁴ National Institute of Standards and Technology web page, *About NIST*, available at: <https://www.nist.gov/about-nist>

⁵ North American Energy Standards Board web page, *About NAESB*, available at: <https://www.naesb.org/aboutus.asp>

These organizations have both approved GBC. The standard provides for the utility to host an automated web service that developers of energy management software and service providers can use, with customer authorization, to automatically and securely retrieve meter data in their software using XML format. There is no need for the customer to repeatedly log into the utility's website and download files every time the customer wants to share data with a third party. The customer's authorization is valid for an agreed upon time and can be revoked at any time. This allows customers to have their data accessed and analyzed with third-party software, including mobile applications.

GBC reflects the best practice for data sharing. The standard was developed using the rigorous processes followed by NIST and NAESB. These organizations bring together top experts from the leading electric industry stakeholders. The proposed standards are subject to vigorous examination and debate over a lengthy period of time. The standards that emerge from this process represent a consensus view by industry experts of the best way to resolve a particular issue – in this case, data sharing. As New York's biggest utility, Consolidated Edison, Inc. (ConEd), affirmed in 2016 in their AMI business plan, they were not aware of "any alternatives that provide the functionality, standardization, and customer-driven authorization protocols inherent in GBC." Furthermore, the utility emphasized that GBC was "the appropriate protocol for transferring customer usage information."

Duke Energy proposes to use an "equivalent" version of GBC; however, Duke Energy's development of an alternative system would be costly and duplicative, and not based on a nationwide standard."⁶ Third party developers would need to revise their tools to interface with

⁶ Case no. 16-E-0060, New York Public Service Commission, Customer Operations Panel testimony of Marilyn Caselli, Michael Murphy, Christopher Grant et al., January 29, 2016. Consolidated Edison Company of New York,

Duke Energy’s “equivalent” standard. This would be costly and time-consuming and developers would instead be more likely to focus their efforts on developing tools for the nationwide market for energy efficiency/demand response tools, rather than Duke Energy’s much smaller “equivalent” system.

III. Specific Recommendations for Data Access Rulemaking

EDF’s primary recommendation is that the Commission’s rule should explicitly require utilities to implement the methodology for electronic exchange of customer energy usage data as set forth in most recent version of the applicable industry national standard (currently GBC), as approved by NAESB or an equivalent national standards organization. This would avoid the need for the Commission to amend the rule every time the industry national standard is modified. This explicit requirement to implement the national standard is needed to prevent utilities to adopt their own “equivalent” systems, which would result in a completely balkanized system where each utility has its own individual system for electronic data exchange – destroying the possibility of a national market for these energy efficiency and demand response tools and preventing customers from have access to a broad choice of third party services that customers could use to save money on their energy bills. Both the Public Staff and the Mission:data rule proposals accomplish this.

IV. Conclusion

EDF thanks the Commission for the opportunity to comment on this important step in North Carolina’s effort to secure the benefits of grid modernization for all customers and to give customers the maximum opportunity to save money on their energy bills.

Inc., p. 45-46. <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7b18A56129-99CB-445B-9FC3-209A60FE9393%7d>

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that all persons on the docket service list for these three proceedings have been served true and accurate copies of the foregoing Comments of EDF by first class United States mail, postage prepaid, or by email transmission with the party's consent.

This the 8th day of February, 2020.

/s/ Dan Whittle
