

**BEFORE THE NORTH CAROLINA UTILITIES COMMISSION
DOCKET NO. E-100 SUB 147**

In the Matter of:)
Smart Grid Technology Plans Pursuant to) **NCSEA’S COMMENTS**
Commission Rule R8-60.1(c))

NCSEA’S COMMENTS

The North Carolina Sustainable Energy Association (“NCSEA”), and intervenor in this proceeding, submits these comments on the smart grid technology plans (“SGTPs”) filed by Duke Energy Carolinas, LLC (“DEC”), Duke Energy Progress, LLC, (“DEP”), and Virginia Electric and Power Company, d/b/a Dominion North Carolina Power (“DNCP”) in accordance with the *Order Granting Further Extension of Time to File Comments and Reply Comments and Suspending Discovery Requests* issued by the North Carolina Utility Commission (“Commission”) in this docket on December 1, 2016.

I. DATA ACCESS IN THE 2016 SMART GRID TECHNOLOGY PLANS

Commission Rule R8-60.1(c)(3) sets forth the contents that are required to be included in SGTPs. The Rule specifically states that:

(3) For all smart grid technologies currently being deployed or scheduled for implementation within the next five years:

...

(iv) A description of how the utility intends the technology to transfer information between it and the customer while maintaining the security of that information.

(v) A description of how third parties will implement or utilize any portion of the technology, including transfers of customer-specific information from the utility to third parties, and how customers will authorize that information for release by the utility to third parties.

In the 2014 SGTP proceeding, NCSEA commented that “[i]n response to the directives concerning how the utilities will transfer information between themselves and

customers and how third parties will implement or utilize any portion of the technology, the utilities all failed to provide sufficient information.” *Comments of NCSEA and EDF*, p. 4, Docket No. E-100, Sub 141 (January 9, 2015) (hereinafter “*NCSEA’s 2015 Comments*”). While each of the utilities has made improvements in its 2016 SGTP, DEC in particular still fails to adequately address the transfer of information between it and the customer (although it does address the transfer of information between the customer’s meter and the utility) and the transfer of information between it and third parties.¹

In its 2016 SGTP, DEC discusses two projects that involve the deployment of advanced metering infrastructure (“AMI”) meters to certain customers who had been bypassed during DEC’s initial AMI deployment. *See, Duke Energy Carolinas 2016 Smart Grid Technology Plan*, pp. 7-11, Docket No. E-100, Sub 147 (October 3, 2016) (hereinafter “*DEC’s 2016 SGTP*”). For both projects, in response to the requirement of Rule R8-60.1(c)(3)(iv) to describe “how the utility intends the technology to transfer information between it and the customer while maintaining the security of that information[,]” DEC describes the security measures it has put in place to protect customer information, but fails

¹ NCSEA notes that in the 2014 proceeding, the Commission stated that “The Public Staff and NCSEA/EDF had several requests for additional information to be filed in the SGTPs. The utilities shall address these requests for additional information in future plans if they are able to do so.” *Order Approving Smart Grid Technology Plans, Declining to Schedule a Hearing, and Requesting Comments on Rule Revisions*, p. 19, Docket No. E-100, Sub 141 (November 5, 2015) (hereinafter “*E-100, Sub 141 Order*”). In the 2014 proceeding, NCSEA clearly requested additional information regarding the transfer of customer data between the utility and the customer and between the utility and third parties. *See, NCSEA’s 2015 Comments*, pp. 4-8; *Reply Comments of NCSEA and EDF*, pp. 3-8, Docket No. E-100, Sub 141 (January 29, 2015). Even if the utilities believe the information sought by NCSEA in both 2014 and 2016 is not required to be included in smart grid technology plans by Rule R8-60.1, the utilities have neither addressed the requests made by NCSEA in the 2014 nor addressed why they are unable to provide such information, if that is the case.

to explain how the technology transfers information from DEC to the customer. As has been discussed in detail in NCSEA’s previous filings, AMI meters are by definition capable of transferring information to the customer. *See, NCSEA’s 2015 Comments*, Exhibit B. However, DEC fails to address this aspect of Rule R8-60.1(c)(3)(iv). Similarly, in response to the requirement of Rule R8-60.1(c)(3)(v) to describe “how third parties will implement or utilize any portion of the technology,” DEC fails to even note that third parties make use of information from AMI meters, as has also been discussed in NCSEA’s previous filings. *See, NCSEA’s 2015 Comments*, Exhibits A & B.

II. CUSTOMER ACCESS TO SMART METER DATA

DEC indicates that for customers with AMI meters, it provides:

the ability to access day prior electric usage information via the internet-based Customer Portal. The Portal displays usage information up to and including prior day usage. Customers can view daily and average energy usage by billing cycle or month. Customers can also view average energy usage by day-of-week, and hourly energy usage by day or week...

DEC’s 2016 SGTP, p. 35. DEC further indicates that its customers “have the ability to download their hourly usage data from the Customer Portal in a .CSV format.” *Id.*, p. 36. Similarly, DNCP’s customers with AMI meters can use the utility’s online customer portal “to view and download 30-minute interval data related to energy usage[.]” *DNCP Response to NCSEA Data Request 2-2*, Docket No. E-100, Sub 147 (attached as **Exhibit A**). However, DEP’s 56,637 customers with AMI meters do not currently have access to similar granular information about their energy consumption. *DEP Response to NCSEA Data Request 3-1*, Docket No. E-100, Sub 147 (attached as **Exhibit B**).

DEC discusses the development of their Smart Meter Usage App program, which appears to indicate that the utility has concluded that an analysis of energy consumption

data can provide insights to consumers, and that customers want this type of information. *DEC's 2016 SGTP*, pp. 27-28. While NCSEA applauds DEC for taking the initiative to develop a program that provides consumers with this type of analysis, NCSEA notes that many such programs already exist.² However, these programs require easy and secure access to machine-readable granular energy consumption data that is currently not easily accessible to third party software developers that have been authorized to receive the data by consumers.

III. NCSEA'S PROPOSED DATA ACCESS RULE

In the 2014 SGTP proceeding, the Commission directed the utilities “to address in their 2016 SGTPs whether the Commission’s rules should be updated at that time in order to address customer and third party access to usage data[,]” and went on to note that “if any party believes that rule changes are needed, they should file their proposed rule changes in the 2016 SGTP docket.” *E-100, Sub 141 Order*, p. 19. In their SGTPs, DEC and DEP state that they “do see merit in reviewing the Commission Rules related to customer and third party access to usage data for potential updates[.]” *DEC's 2016 SGTP*, Appendix C; *Duke Energy Progress 2016 Smart Grid Technology Plan*, Appendix C, Docket No. E-100, Sub 147 (October 3, 2016) (hereinafter “*DEP's 2016 SGTP*”). Dominion, however, “does not recommend any revisions to the Commission’s rules that require updating to facilitate customer access to their utility data.” *2016 Smart Grid Technology Plan of*

² NCSEA further questions whether it is an efficient use of utility funds, for which the utility will surely request cost recovery in a rate application, to develop a duplicative software program that provides the same services as existing software programs. NCSEA believes that the development of such software is clearly outside the utility’s core business of providing electricity and is better left to venture capitalists and start-up technology companies.

Dominion North Carolina Power, Appendix B, Docket No. E-100, Sub 147 (September 30, 2016).

NCSEA agrees with DEC and DEP that there is “merit in reviewing the Commission Rules related to customer and third party access to usage data[.]” *DEC’s 2016 SGTP*, Appendix C; *DEP’s 2016 SGTP*, Appendix C.³ Combined, DEC, DEP, and DNCP have deployed nearly 590,000 AMI meters in their respective North Carolina service territories that are capable of providing granular energy consumption data that can be analyzed and provide insights to consumers about their energy consumption habits. While not in and of itself an energy efficiency measure, data access enables consumers to identify energy efficiency measures that could be most impactful based on their energy consumption habits.

To this end, and pursuant to the Commission’s *E-100, Sub 141 Order*, NCSEA proposes a new Commission Rule R8-51.1, which is attached as **Exhibit C**. NCSEA’s proposed rule requires the utilities to provide twenty four months, or the amount of time that a consumer has had an account at an address, of energy usage data in an electronic machine-readable format at no charge as a part of their basic service. The proposed rule further requires the utilities to have a standard form that can be submitted electronically for

³ DEC and DEP go on to “submit that the process to do so should be a collaborative effort with all interested intervening parties in a separate docket.” *DEC 2016 SGTP*, Appendix C; *DEP 2016 SGTP*, Appendix C. DEC reiterated this belief in another filing. *See, DEC’s Reply Comments*, p. 8, Docket No. E-7, Sub 1115 (November 28, 2016). NCSEA is supportive of a collaborative effort to update the Commission’s data access rules, but notes that it has been more than a year since the Commission requested that proposed rules be filed in the 2016 SGTP docket. Accordingly, all interested parties have had adequate notice that the Commission’s data access rules would be examined and have had the opportunity to intervene in the present docket. As such, NCSEA submits that it is unnecessary to open a separate docket to consider the issue.

consumers to authorize the release of their energy consumption data to third parties. Finally, the proposed rule holds the utilities harmless if a third party who has been authorized to receive consumer energy usage data misuses the data in any manner.

North Carolina's Public Utilities Act, as interpreted and enforced by the Commission, grants a monopoly to utilities to provide electricity in a defined service territory; the Public Utilities Act does not grant a monopoly to utilities to provide analysis of energy consumption data to consumers. AMI meters provide the utilities with granular energy consumption data, and the Commission should require that the utilities provide consumers and authorized third parties with easy access to this data.

Respectfully submitted, this the 19th day of December, 2016.

/s/ Peter H. Ledford
Peter H. Ledford
Regulatory Counsel for NCSEA
N.C. State Bar No. 42999
4800 Six Forks Road, Suite 300
Raleigh, NC 27609
919-832-7601 Ext. 107
peter@energync.org

CERTIFICATE OF SERVICE

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

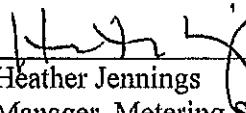
This the 19th day of December, 2016.

/s/ Peter H. Ledford
Peter H. Ledford
Regulatory Counsel for NCSEA
N.C. State Bar No.42999
4800 Six Forks Road, Suite 300
Raleigh, NC 27609
919-832-7601 Ext. 107
peter@energync.org

Exhibit A

Dominion North Carolina Power
2016 Smart Grid Technology Plan – Docket No. E-100, Sub 147
North Carolina Sustainable Energy Association
Data Request No. 2

The following response to Question No. 2 of the North Carolina Sustainable Energy Association Data Request No. 2, dated November 14, 2016 has been prepared under my supervision.



Heather Jennings
Manager, Metering Solutions

Interrogatory Question No. 2:

On page 12 of the Smart Grid Technology Plan, DNCP indicates that, “Residential and Non-Residential customers may register and log into the Company’s customer portal (‘Manage Account’) to view their last 12 bills, access 18 months of historical usage, and view 30 minute interval data (where applicable).” Are the 5,170 customers with AMI meters in North Carolina currently able to access this 30 minute interval data? Why or why not?

Response:

Customers with AMI meters are able to enroll to view and download 30-minute interval data related to energy usage through Manage Account.

Exhibit B

DUKE ENERGY PROGRESS, LLC

Request:

In the Advanced Metering Infrastructure (“AMI”) Summary on page 35 of its Smart Grid Technology Plan, Duke Energy Carolinas, LLC (“DEC”) indicates that for customers with an AMI meter, it provides:

The ability to access day prior electric usage information via the internet-based Customer Portal. The Portal displays usage information up to and including prior day usage. Customers can view daily and average energy usage by billing cycle or month. Customers can also view average energy usage by day-of-week, and hourly energy usage by day or week...

In its AMI Summary on page 29 of its Smart Grid Technology Plan, Duke Energy Progress, LLC (“DEP”) provides no such indication that this same data is available to its customers with AMI meters. Does the DEP currently provide AMI metered customers with the same interval electricity consumption data that DEC provides to its AMI metered customers? If not, why, and does DEP plan on giving its customers access to this data in the near future?

Response:

No. Due to the limited scope of the DEP AMI project, it did not include the development and integration of the systems necessary to provide customers with interval electricity consumption data. Yes, DEP does anticipate giving its customers access to this data in the future, however, does not have any approved projects to do so at this time.

Exhibit C

R8-51.1. PROVISION OF PAST ENERGY CONSUMPTION DATA IN ELECTRONIC MACHINE-READABLE FORM

(a) As used in this rule, the following definitions apply:

(1) “Standard usage data” means twenty four months, or the period of time that a consumer has had an account at a given address, whichever is less, of history of both the best available energy usage data and information in the most granular level that is measured by the meter and the best-available price data and information for each unit of energy consumed.

(2) “Authorized third party” means a third party that has received authorization from a consumer pursuant to Section (e) of this rule to receive that customer’s standard usage data.

(b) As part of standard utility service, each utility shall provide consumers and authorized third parties with access to a consumer’s standard usage data.

(1) The utility shall provide consumers and authorized third parties with access to a customer’s standard usage data in an electronic machine-readable form that is consistent with the latest version of the North American Energy Standard Board’s Energy Services Provider Interface. The utility’s compliance with the requirements of the Energy Services Provider Interface shall be certified annually by the Green Button Alliance.

(2) The utility shall provide the access required by this section without any additional charge.

(3) Complaints regarding a utility’s failure to process consumer authorizations to release standard usage data pursuant to Section (c) of this rule in a timely manner or to provide authorized third parties with access to a customer’s standard usage data in a timely manner shall be treated as complaints under Rule R1-9.

(c) Each utility shall provide consumers with the ability, by telephone, by email, and via the utility’s website, to authorize a third party to access that consumer’s standard usage data.

(1) The utility shall provide on their website a standard form for consumers to authorize the utility to provide their standard usage data to a third party. Modifications to the standard consent form by the utility do not modify or invalidate consent forms that have previously been executed by a consumer.

(2) Any standard consent form required by subsection (1) of this rule shall:

a. Be not more than one page in length, or of an equivalent length if provided electronically, and be printed in a font not smaller than 12-point type;

b. Allow a consumer to provide the following information:

(i) The name and contact information of the third party that is being authorized to receive the consumer’s standard usage data;

(ii) The length of time for which the consumer is authorizing the provision of their standard usage data. The utility shall provide consumers with the option to authorize a one-time provision of their standard usage data, to authorize ongoing provision for periods of

one year, two years, or three years, to authorize ongoing provision until an end date specified by the consumer, and to authorize ongoing disclosure that is valid until it is rescinded by the consumer.

c. State that the consumer's consent is valid until terminated;

d. State that the consumer must notify the utility in writing, either electronically or non-electronically, to terminate their consent and provide the consumer with the necessary contact information for a consumer to provide such notification; and

e. Provide notice to the consumer that the utility is not liable or responsible for the confidentiality of the consumer's data once it is provided to an authorized third party and that the utility is not responsible for monitoring or ensuring that authorized third parties maintain the confidentiality of the consumer's data or use the consumer's data as intended by the consumer.

(3) Only a consumer or the Commission may cause a utility to cease providing standard usage data to an authorized third party. A utility shall not unilaterally terminate an authorized third party's access to standard usage data.

(d) Upon request from a consumer, the utility shall immediately transfer the consumer's standard usage data to an authorized third party. Thereafter, the utility shall transmit the consumer's standard usage data to an authorized third party as soon as practicable after the utility collects the standard usage data from the consumer's meter.

(e) To be eligible to receive a consumer's standard usage data from a utility in an electronic machine-readable form, an authorized third party must: (i) demonstrate the technical capability to securely interact with the utility's servers; (ii) provide contact information to the utility; and (iii) not be prohibited from receiving a consumer's standard usage data by the Commission.

(1) Complaints that an authorized third party has violated the Commission's rules or any other privacy rules, laws, or requirements shall be treated as complaints under Rule R1-9.

(2) If a consumer files a complaint pursuant to Rule R1-9 against an authorized third party, the consumer shall be deemed to have revoked their authorization for the third party to receive that customer's standard usage data. Upon the filing of such a complaint, the Commission shall serve the complaint upon the consumer's utility who shall then discontinue the provision of that consumer's standard usage data to the third party. The filing of such a complaint shall not impact the authorization of any other consumer's authorization to provide their standard usage data to the third party.

(3) If the Commission determines that a third party has violated the Commission's rules or any other privacy rules, laws or requirements, the Commission may prohibit utilities from providing that third party from receiving the standard usage data of consumers.

(f) Nothing in this rule shall limit the right of consumers to provide their own data to any other party. Each utility must provide nondiscriminatory access to a consumer's standard usage data to any authorized third party.

(g) Utilities and their directors, officers, and employees that disclose consumer data to any authorized third party shall not be liable or responsible for any claims for loss or damages resulting from the disclosure of such consumer data.