

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

In the Matter of: Commission Rules Related to Electric Customer Billing Data)))	NCSEA’S REPLY COMMENTS
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NCSEA’S REPLY COMMENTS

Pursuant to the North Carolina Utilities Commission’s (“Commission”) *Order Requesting Reply Comments* issued on May 26, 2020 in the above-captioned docket, as modified by the Commission’s *Order Granting Motion for Extension of Time* issued on June 24, 2020, the North Carolina Sustainable Energy Association (“NCSEA”) provides the following reply comments.

Since 2013, NCSEA has advocated for the Commission to direct Duke Energy Carolinas, LLC (“DEC”), Duke Energy Progress, LLC (“DEP”) (DEC and DEP, collectively, “Duke”) and the Virginia Electric and Power Company d/b/a Dominion Energy North Carolina (“DENC”) (Duke and DENC, collectively, the “Utilities”) to adopt internationally-accepted standards to provide consumers with access to their energy consumption data.¹ Now, after seven years of proceedings, the Utilities are still steadfastly refusing to agree to an international standard.²

I. THE TIME HAS COME TO ADOPT GREEN BUTTON CONNECT

For more than two years, the Commission has indicated its desire for the Utilities to implement not just any data access protocol, but the Green Button Connect protocol.

¹ For a full history of NCSEA’s filings on this matter, see, *NCSEA’s Comments and Request for Reply Comments*, pp. 1-2, Docket No. E-100, Sub 161 (February 10, 2020) (“NCSEA’s Initial Comments”).

² See, *Initial Joint Comments of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC*, pp. 5-6, Docket No. E-100, Sub 161 (February 10, 2020) (“Duke Initial Comments”) and *Initial Comments of Dominion Energy North Carolina*, pp.15-16, Docket No. E-100, Sub 161 (February 10, 2020) (“Dominion Initial Comments”).

See, Order Accepting DENC's and DEC's SGTP Updates, Requiring Additional Information from DEP and Directing DEC and DEP to Convene a Meeting Regarding Access to Customer Usage Data, p. 10, Docket No. E-100, Sub 147 (March 7, 2018) (“[T]he Commission requests that the discussions include the Green Button Connect My Data system for data access.”). *See also, Order Accepting Smart Grid Technology Plans and Requiring Additional Information*, p. 21, Docket No. E-100, Sub 157 (July 22, 2019) (“The Commission recognizes that Docket No. E-100, Sub 161 was opened to address Commission Rules Related to Electric Customer Billing Data and concludes that data access issues, including Green Button Connect, should be appropriately addressed in that proceeding.”). Moreover, in the past six months, changing energy consumption habits due to the COVID-19 pandemic only served to underscore the need for customers to have transparent, consistent access to their energy consumption data. A DEP witness recently noted that:

As I noted in my rebuttal testimony, the Company is experiencing a significant reduction in its load and associated revenues due to many commercial and industrial customers as well as schools and colleges scaling back operations, if not closing completely, during the COVID-19 state of emergency. . . . In addition to the reduction in non-residential load referenced above and in my rebuttal testimony, the Company has experienced an increase in residential usage.³

Residential customers, many of whom are now spending more time at home due to office closures or job losses, have been seeing their energy consumption increase. Providing these customers with easy access to their energy consumption data via adopting the Green Button

³ *Second Supplemental Direct Testimony of Michael J. Pirro*, p. 3, Docket No. E-2, Sub 1219 (July 2, 2020).

Connect protocol will serve to help them improve their energy efficiency at a time when conservation is most needed.

Despite the fact that Green Button Connect has been discussed in proceedings before the Commission since 2013, Dominion argues that “it is premature to prospectively adopt by reference a standard nearly two years in advance that could change substantially before it is automatically codified into the Commission’s rules.”⁴ In response to Dominion’s objection, NCSEA notes that it would fully support the Commission immediately implementing Green Button Connect. Dominion further asserts that “NAESB Req. 21, which serves as the basis for the ‘Green Button’ platform, was the subject of lengthy Duke-led stakeholder process in 2018[.]”⁵ NCSEA fundamentally disagrees with Dominion’s characterization of two meetings followed by continued inaction by the Utilities as a “lengthy stakeholder process.”⁶

NCSEA further notes that the objection from Duke to implementing Green Button Connect due to a lack of compatibility with software is an entirely self-imposed problem. In its initial comments, Duke asserts that:

Implementation of these proposed Rule amendments in January 2022 will add risk to the deployment of the Customer Connect Program for DEC (April 2021) and DEP (April 2022). To allow for successful testing, training, conversion and implementation of the core solution, the Companies must freeze changes to many IT systems and business applications starting in 2020. Therefore, from a practical and technical standpoint, the Companies believe these proposed amendments would

⁴ Dominion Initial Comments, p. 15.

⁵ Dominion Initial Comments, pp. 15-16.

⁶ See generally, *Duke Energy Carolinas LLC and Duke Energy Progress, LLC’s Report on Data Access Stakeholder Meeting*, Docket No. E-100, Sub 147 (June 21, 2018) and *2018 Smart Grid Technology Plans of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC*, Exhibit 2, Docket No. E-100, Sub 157 (October 1, 2018).

jeopardize their deployment of the benefits of Customer Connect to their customers.⁷

The issue is self-imposed because it is well established that Duke never even bothered to investigate incorporating Green Button Connect into its customer information system. In 2017, a DEP witness testified that they had not investigated Green Button Connect when they began designing their new Customer Connect customer information system:

- Q. Okay. In any event, did the Company investigate developing Green Button functionality into this system?
- A. We have not.
- Q. Why not?
- A. Green Button was something that we investigated as a Company several years back, and that is not something that we are currently pursuing.
- Q. But why not?
- A. That was not a decision that was my decision to make so I'm not -- I don't know the answer to that, John.⁸

Similarly, a DEC witness conceded that the company had not even investigated the cost of implementing Green Button Connect:

- Q. Has the Company estimated the cost to implement Green Button?
- A. Not that I'm aware of.
- Q. Okay. Do you believe it would be more expensive to integrate data access, such as Green Button, at the time the CIS is being developed, that is on the front end before it's deployed, or to add it afterwards in the form of a bolt-on?
- A. We really haven't looked at that, so that's hard for me to say.⁹

⁷ Duke Initial Comments, pp. 4-5.

⁸ *Transcript of Testimony Heard 11/29/2017, Raleigh, NC Vol. 9*, p. 182, Docket No. E-2, Sub 1142 (December 6, 2017).

⁹ *Transcript of Testimony Heard March 15, 2018 Raleigh North Carolina Vol.18*, p. 304, Docket No. E-7, Sub 1146 (March 20, 2018). However, DEC has stated that their development of a protocol "consistent" with Green Button Download My Data cost \$600,000. *See, Duke Energy Carolinas, LLC's Response to April 22, 2019 Order Requiring Additional Information*, pp. 8-9, Docket No. E-7, Sub 1146 (May 23, 2019) ("The development cost for the Company's program with Green Button Download My Data functionality was approximately \$600,000.").

By the time the Public Staff's proposed rule regarding Green Button Connect goes into effect, the Utilities will have had nearly a decade since the protocol was first raised at the Commission to prepare for implementation. Rather than questioning whether Duke's Customer Connect customer information system can accommodate Green Button Connect, NCSEA encourages the Commission to question whether Duke's decision not to prepare for Green Button Connect was reasonable and prudent.

Finally, Duke asserts that "The potential risks of third-party involvement in that process should be fully vetted before a Commission Rule requires it[.]"¹⁰ The Commission has created a venue for this process – the instant proceeding. Duke could have identified these unnamed security risks in the current docket, but has chosen not to do so. Unless Duke provides evidence of security risks associated with an internationally accepted data transfer protocol, these concerns should be dismissed by the Commission.

II. THE STATUS QUO IS INSUFFICIENT

NCSEA notes that Duke's assertion that "DEC and DEP customers with smart meters are already able to view and download their electric usage data from the Companies' websites in a standardized format[]"¹¹ is simply untrue. While many Duke customers with smart meters have access to their energy usage via their account portal, **Figures 1 and 2** demonstrate that not all customers do.

¹⁰ Duke Initial Comments, p. 5.

¹¹ Duke Initial Comments, p. 5.

Figure 1. DEP customer portal, showing “Energy Usage” option

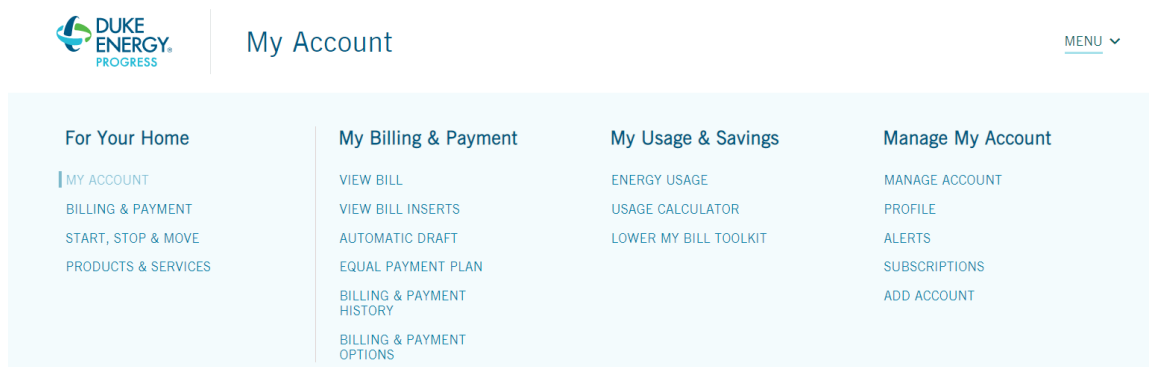
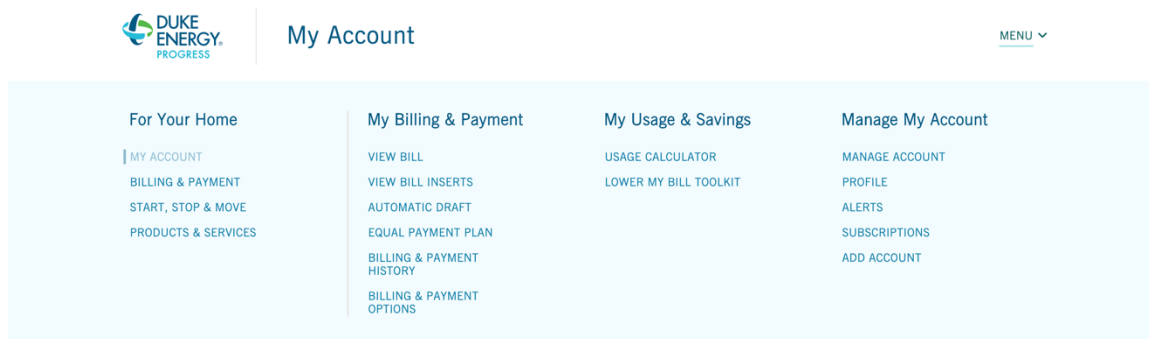


Figure 2. DEP customer portal, without “Energy Usage” option¹²



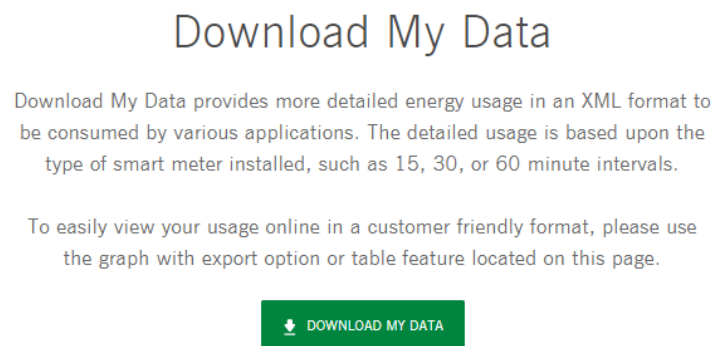
Based on an informal survey of NCSEA staff and colleagues, it appears that customers who are served by a residential time-of-use rate (“TOU”) and/or are net metering customers do not currently have access to their energy usage data. This is especially unfortunate since these customers have additional financial incentives to manage their electricity consumption wisely compared to customers who are billed with a static energy charge. If TOU and net metering customers had access to their electricity consumption data, they

¹² The customer in question has a Landis + Gyr Focus AXR advanced metering infrastructure (“AMI”) meter. See, Landis + Gyr, *United Illuminating Benefits from Gridstream MDMS Flexibility and Time Saving Automation*, available at <https://www.landisgyr.com/webfoo/wp-content/uploads/2014/04/LG-UnitedIlluminating-CS-3-19.pdf> (last visited July 15, 2020). See also, Seattle City Light, *Advanced Metering Learning Library*, available at <https://www.seattle.gov/light/ami/resources.asp> (last visited July 15, 2020).

could presumably better identify the exact time of their peak electricity demand and possibly take additional steps to reduce it.

For other customers, Duke notified the Commission in March that DEC and DEP, “have implemented customer data access functionality similar to the access provided by Green Button: Download My Data functionality. DEC and DEP customers with smart meters can now access this functionality via their accounts on the Duke Energy websites.”¹³ However, to NCSEA’s knowledge and review of residential customer bill inserts, customers have not been formally notified that this functionality is now enabled. Further, **Figure 3** demonstrates that the customers who have been provided with Download My Data-like functionality through their customer portal only receive a brief description of the dataset and are given no instructions on how they might use the data to better manage their energy use or even how they should read the data and data labels.

Figure 3. DEC Customer Portal with Download My Data

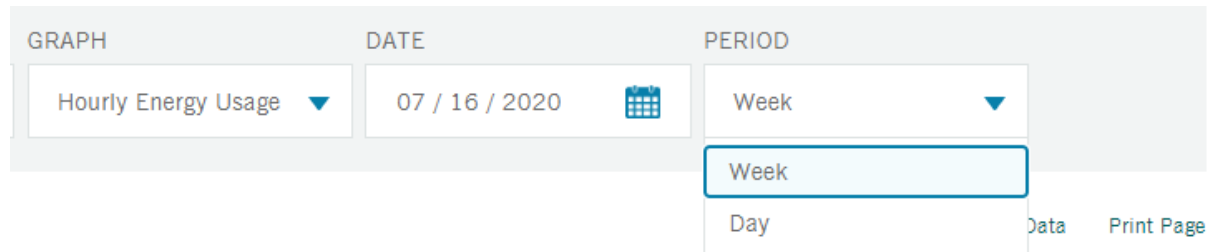


In addition, the usage data presented in a “customer friendly format” referenced in Figure 3 only provides hourly usage data in weekly datasets (see **Figure 4**). A customer would have to initiate 52 downloads and then piece together the files if they wanted one or

¹³ *Duke Energy Carolinas, LLC and Duke Energy Progress, LLC’s Notice of Customer Data Access Functionality*, p. 1, Docket Nos. E-100, Sub 157 and E-7, Sub 1146 (March 2, 2020).

more years of data in a “customer friendly format” to see how their energy consumption patterns change throughout the year.

Figure 4. DEC Customer Portal with Usage Data



The screenshot shows a web interface for the DEC Customer Portal. It features three main sections: 'GRAPH', 'DATE', and 'PERIOD'. The 'GRAPH' section has a dropdown menu currently set to 'Hourly Energy Usage'. The 'DATE' section displays '07 / 16 / 2020' next to a calendar icon. The 'PERIOD' section has a dropdown menu with 'Week' selected, and a secondary dropdown menu is open showing 'Week' and 'Day' options. To the right of the 'PERIOD' dropdown, there are links for 'Data' and 'Print Page'.

The instructions provided with Duke’s Download My Data also note, “The detailed usage is based upon the type of smart meter installed, such as 15, 30, or 60 minute intervals.” (see **Figure 3**) This is again disappointing that all customers are not provided with the most granular level of data possible (in this case 15 minutes) and can only get access to sub hourly consumption data if they were randomly fortunate enough to be provided with that type of advanced meter. NCSEA requests the Commission instruct Duke to answer the following questions related to the data collection discrepancies between the different types of smart meters DEC and DEP have or are deploying:

- How many customers are or will be able to get access to 15 minute incremental data? 30 minutes? Hourly?
- If a customer wants access to electricity consumption data in increments of 15 minutes or less but is not provided with it, is there a process for the customer to get access to that data?

Lastly, using a Green Button Data validator from the Green Button Alliance,¹⁴ it appears that the Duke provided data does not meet the Download My Data standard.

¹⁴ See, *The Official Green Button Download My Data (DMD) Validation Tool - brought to you by the Green Button Alliance*, available at <http://dmdvalidator.greenbuttonalliance.org/> (last accessed July 17, 2020).

NCSEA acknowledges that the Company has only claimed to implement customer data access functionality “similar” to the access provided by Green Button: Download My Data but would like the Commission and other stakeholder to be aware that Duke is already not complying with Green Button: Download My Data standards. Dominion notes its concern that Green Button Connect has the potential to change or evolve in the future.¹⁵ NCSEA notes that the utilities have no problem implementing other standards that change or evolve over time – IEEE 1547, for example.¹⁶ The fact that Green Button Connect may or may not change in the future should not be a hindrance to its use.

These examples show that while NCSEA believes smart meters and the electricity consumption data they track can provide a real benefit to customers, Duke is not truly giving the average customer a realistic way to take advantage of that data despite years of discussion about best practices for data access and widespread agreement that it can provide benefits to customers. Duke has been given permission to recover costs on its deployment of AMI because “The AMI benefits, current and future, identified by DEC are substantial[,]”¹⁷ but Duke still has not provided average customers with a realistic pathway to take advantage of that data. Therefore, in order to address the insufficiency of Duke’s current data access practices, we ask that the Commission direct Duke to:

- Fully provide all customers with smart meters access to their energy data usage, including TOU and net metering customers;

¹⁵ Dominion Initial Comments, p. 15 (“The Company believes it is premature to prospectively adopt by reference a standard nearly two years in advance that could change substantially before it is automatically codified into the Commission’s rules”).

¹⁶ See generally, *Duke Energy Carolinas, LLC and Duke Energy Progress, LLC’s Report on IEE 1547-2018 Stakeholder Process and Initial Study Results*, Docket No. E-100, Sub 101 (April 1, 2020).

¹⁷ *Order Accepting Stipulation, Deciding Contested Issues, and Requiring Revenue Reduction*, p. 124, Docket No. E-7, Sub 1146 (June 22, 2018).

- To notify customers that do have access to Download My Data functionality of their eligibility to access this data via a bill insert or a similar type of notification;
- To provide customers with a more detailed statement and context about the benefits of Download My Data and how it can be used via the customer portal;
- Provide customers with the ability to access two years of energy data consumption in Duke’s “customer friendly format” in one download step; and
- To answer the previously mentioned questions related to the data collection discrepancies between the different types of smart meters DEC and DEP have or are deploying.

III. CONCLUSION

As stated in NCSEA’s Initial Comments, NCSEA believes that the Commission should adopt either the rule proposed by the Public Staff – North Carolina Utilities Commission (“Public Staff”) in its initial comments or the rule proposed by the North Carolina Attorney General’s Office and Mission:data in their joint comments. Should the Commission adopt the Public Staff’s proposed rule, NCSEA reiterates its recommendation that the Green Button Connect portion of the Public Staff’s proposed rule come into effect six months after a final Commission order in this proceeding.

Finally, NCSEA reiterates its belief that now is an appropriate time for Commission action and leadership on the issue of customer access to their energy consumption data. As load patterns shift and our State’s economy struggles due to the COVID-19 pandemic, providing ratepayers with better access to their energy consumption data is an easy, low-cost, way for the Commission to help ratepayers manage their energy bills.

Respectfully submitted, this the 17th day of July, 2020.

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CERTIFICATE OF SERVICE

I hereby certify that all persons on the docket service list have been served true and accurate copies of the foregoing Reply 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 17th day of July, 2020.

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