

**STATE OF WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION**

Rulemaking to modify existing consumer protection and meter rules to include Advanced Metering Infrastructure)) Docket No. U-180525

**COMMENTS OF MISSION:DATA COALITION
ON PROPOSED RULES**

Mission:data Coalition (“Mission:data”), a national non-profit coalition of technology companies delivering data-enabled energy management services, is pleased to provide these comments on the Commission’s draft rules on data privacy, data access and billing rules as published in the May 4, 2020 Notice of Opportunity to File Written Comment on Proposed Rules and Notice of Rule Adoption Hearing.

1. Recent Developments on Smart Meters and Data Privacy Warrant Postponing Commission Action on WAC 480-90-153 and WAC 480-100-153

Since the Commission’s workshop held at the Commission on December 19, 2019, two important developments in smart metering technology and state policy have occurred. As explained below, Mission:data believes these developments warrant postponing the adoption of the proposed modifications to WAC 480-90-153 and WAC 480-100-153, “Protection and disclosure of customer information,” applicable to both gas and electric utilities. Mission:data recommends continuing with further investigation through workshops in order to request information and better understand the technical capabilities of advanced meters already deployed, or planned for deployment, throughout Washington. As described below, the technological capabilities of advanced meters, and their associated ratepayer benefits, may warrant further rule revisions.

(A) Smart Meters With “Distributed Intelligence” Capability Dramatically Change the Energy Efficiency and Distributed Energy Landscape and Warrant Further Investigation Prior to Finalizing WAC 480-90-153 and WAC 480-100-153

The present rulemaking was initiated on July 10, 2018 in order to modify existing rules in WAC 480-100 (Electric Companies) and WAC 480-90 (Gas Companies). The Commission identified the need to address meters and consumer protection issues “directly impacted by AMI technologies.”¹ Specifically, the Commission asked certain questions to be addressed in the present rulemaking, such as “What incremental or different information will companies collect or retain with the implementation of AMI?” and “What rights do or should customers have with respect to their energy use data?”²

It has recently come to our attention that Itron, Inc., the advanced meter manufacturer based in Liberty Lake, Washington, is marketing and selling smart meters with “distributed intelligence” (DI) capabilities to utilities in Washington. DI is defined as computing capability at the “edges” of a network, such as embedded processors within smart meters. DI-capable meters are different from traditional smart meters because traditional smart meters are limited to collecting energy usage information on intervals ranging from 5 minutes to 60 minutes, and then transmitting that information back to the utility for processing. DI-capable meters, in contrast, have computing power that allows for significantly enhanced information gathering at much shorter time intervals, providing insights into power consumption. Mission:data believes that, if advanced meters with DI capabilities are installed in Washington, there could be tremendous benefits to ratepayers such as education and empowerment, bill savings, demand response, energy efficiency tailored to a particular home or business, and distributed resources options. Mission:data is concerned that the proposed rules inadequately address these new DI technologies.

Mission:data has approximately 30 advanced energy management companies as members, representing over \$1 billion per year. Our members offer innovative products and services to help residential, commercial and industrial customers cost-effectively manage their utility bills.

¹ *Notice of Opportunity to File Written Comments*. Washington Utilities and Transportation Commission. Docket No. U-180525, dated July 10, 2018.

² *Id.*

While some of these firms contract with utilities to manage or implement energy efficiency programs, many of them have business models that exist outside of such programs and provide a stand-alone value proposition to customers. Customer energy usage information, particularly that from advanced meters, is foundational to the development of innovative software applications that help consumers manage their utility bills. Examples from the residential sector include smartphone “apps” to intelligently manage Internet-of-Things devices such as smart thermostats and smart power strips to maximize energy savings; weekly email reports that analyze usage data and provide tailored recommendations to conserve plug loads; and, in some markets, even games that offer residents cash payments or gift cards in exchange for saving energy during certain times. In each case, access to the customer’s granular energy usage information is critical to saving customers energy and money.

According to Itron, the DI capabilities of its smart meters enable software applications, or “apps,” to be deployed on an embedded computer contained within the advanced meter. These apps can do much more than merely collect electricity usage information on 5-minute or 60-minute intervals. For example, Itron’s website states that DI allows software apps to “have access to the meter’s data, implement algorithms, and then send the results of these computations to a backend server for further analysis and/or display.”³ If ratepayers are paying for the DI capabilities of smart meters, then ratepayers should receive the direct benefits of these new, enhanced technologies. Third party app developers, such as Mission:data’s member companies, can help unlock the technological potential of DI in the meters, and the Commission’s rules are integral for furthering public policy goals.

For a contextual example, one of the first applications to use DI capabilities appears to be load disaggregation. Disaggregation is the use of algorithms that analyze detailed energy usage data over time to identify the energy usage associated with a specific device or appliance inside a home. On January 23, 2020, Itron announced a partnership with disaggregation software firm Bidgely. The press release states:

With pre-integrated, secure access to Advanced Metering Infrastructure (AMI) data available from Itron’s global installed base of networked electric and gas meters, Bidgely’s UtilityAI™ platform will apply artificial

³ <https://developer.itron.com/content/distributed-intelligence-introduction> (Accessed June 16, 2020.)

intelligence techniques to disaggregate the load data to determine appliance-level energy consumption and energy attributes. This solution will equip utilities to create personalized energy profiles for customers and improve grid intelligence. Through this solution, **utilities will be able to have visibility into appliance-level energy usage** to encourage energy efficiency and drive customer engagement in utility-sponsored Demand Management programs.⁴ (*emphasis added*)

For some time in the energy management industry, accurate electricity disaggregation has been viewed as a “holy grail” because it enables one to pinpoint energy waste without setting foot on a given premise. Rather than relying on time-consuming and expensive energy audits of households or businesses, disaggregation algorithms could streamline energy efficiency investments by allowing instantaneous and remote identification of wasted energy, potentially at millions of American homes at a time.

However, until now, 5-minute, 15-minute or 60-minute usage data from advanced meters hasn’t been granular enough for accurate load disaggregation. According to Stanford University researchers, the key to achieving accuracy is high-frequency data collection of power and voltage on the order of thousands or millions of times per second – precisely what DI capabilities promise to deliver. In a 2011 paper titled “Is Disaggregation the Holy Grail of Energy Efficiency? The Case of Electricity,” the authors state that 15-minute or 60-minute interval usage data is only useful for identifying *categories* of energy usage, such as loads that correlate with outdoor temperature, and loads that are continuous vs. time-dependent. But by measuring energy and voltage one million times per second (1 MHz) or more, 40 to 100 specific appliances in a home can be uniquely identified: A light bulb in your living room and a light bulb on a bedside table can be differentiated. The paper concludes that appliance-specific feedback tools can save up to 12% of energy usage or more because consumers can be provided with timely and specific actions to take.⁵

⁴ <https://www.businesswire.com/news/home/20200123005801/en/Itron-Bidgely-Bring-Combined-Distributed-Intelligence-Next-Gen> (Accessed June 16, 2020.)

⁵ *Is disaggregation the holy grail of energy efficiency? The case of electricity.* Armel, Carrie et al. *Energy Policy* vol. 52. January, 2013 at 213-234.

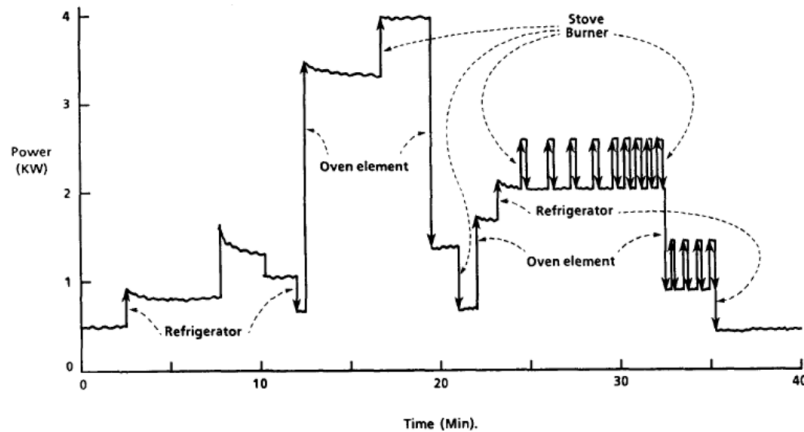


Figure 1: Example of load disaggregation using high-frequency power measurements. Source: *Supra note 5*.

Although it is unclear exactly what frequency of power and voltage data collection Itron will support, Itron has stated publicly that DI apps run on an embedded computer with direct access to the metrology component of the meter. In theory, the metrology component could be interrogated by the software app as frequently as modern central processing unit(s) (CPUs) allow – that is, from 500 million times per second (500 MHz) to over 2 billion times per second (2 GHz), capable of supporting ground-breakingly accurate load disaggregation. Itron offers a DI “Software Developer Kit” (SDK) that allows third parties to develop software apps that run on a Linux operating system inside the meter.⁶ The meter’s operating system is referred to as an “agent” and permits power and voltage data processing of the premise’s energy usage that as heretofore been impossible with traditional smart metering systems: “Application Programming Interfaces (APIs) that Agents running on the meter can use to access meter data, and to send real-time events (or alarms) and non-real-time data to the server. A restricted amount of persistent flash storage is available for Agents to store data locally.”⁷

Itron further states on its website that third parties can apply to become Itron “partners” and develop their own software tools: “After developing and testing the application on a PC Linux system, developers can cross compile the code and test the application on a real meter. When the application is ready, it can be installed on the deployed meters over the air by the

⁶ See *supra* note 3.

⁷ *Id.*

Utility company.”⁸ However, the requirements of such “partners” are not clear. Will Washington ratepayers have the right to ask that the apps of their choosing be installed on their meters for their benefit? What fees, terms, or restrictions are conditioned upon third party apps? Are such terms and conditions just and reasonable? The rules of WAC 480-90-153 and WAC 480-100-153, as proposed, do not address these important questions.

Careful consideration of the data access and privacy rules for electric and gas utilities is critical because it appears advanced meters with DI capabilities are being installed by Avista today. On May 3, 2016, Itron issued a press release stating that Avista had selected Itron’s technology, specifically its “OpenWay Riva” meters with DI capabilities, for its electric and gas AMI deployment. The release states:

Itron’s OpenWay Riva solution is the only utility and smart cities IoT solution available that delivers both Adaptive Communications Technology **and distributed intelligence to meters, grid devices and sensors at the edge of the network.** The platform’s computing power will enable utilities like Avista to run multiple applications in edge devices and make near real-time decisions in the field, instead of solely collecting data for billing and back office analysis. In addition to smart metering, the utility can push various applications to edge devices, including revenue assurance and theft detection; high impedance detection and other safety diagnostics; outage detection and analysis; transformer load management; demand response; and management of distributed generation at the sub-transformer level. **The new solution will also enable Avista to provide more timely information to its customers so they can better manage their energy usage.**⁹*(emphasis added)*

The potential deployment in Washington of advanced metering with entirely novel capabilities – in particular, open-ended computing power available to Itron, the utilities, and third-party software developers – has not been considered by the Commission. Mission: data is concerned that the proposed rules were designed for a world in which advanced meters were relatively “dumb.” Conventional advanced meters measure energy usage in 5-minute to 60-minute

⁸ *Id.*

⁹ <https://itron.com/na/company/newsroom/2016/07/12/avista-selects-itron-to-transform-energy-network-and-enable-smart-city-applications-in-washington> (Accessed June 16, 2020.)

intervals, they report outages to the utility, and they can disconnect power remotely via a control signal from the utility. But other than these relatively simple attributes, smart meters were never envisioned to have generalized computing capabilities, with all of the attendant potential for consumer benefits and analysis of detailed energy usage information. In short, Mission:data fears that the proposed rules are already outdated because the Commission has not evaluated DI technology through the lens of data access and governance now that DI technology is available through one of America's largest and most prominent advanced meter manufacturers.

There are tremendous customer benefits that can be unlocked for customers with computing power built in to the meter. For example, many energy management tools that provide load disaggregation cannot operate cost-effectively in the absence of DI-capable meters because a secondary meter must be installed at a premise *in addition to* the utility meter. Such secondary meters are costly to purchase and difficult to install, requiring a certified electrician, and costs can range from \$300 to \$2,500 or more. If, however, customers can access energy management benefits without having to purchase or install any additional equipment, that would be a huge win for ratepayers. This proceeding is an opportunity to understand, nurture and unlock consumer benefits.

However, we are also deeply concerned about the potential for exploitation of market power by utilities in a manner that diminishes the competitive energy management market. Companies such as our members are important to meeting the state's long-term energy efficiency and greenhouse gas emissions goals. It is understood that utilities have a monopoly on power distribution and retail sales; but does that monopoly extend to, say, energy management software? Should utilities have access to superior customer insights from their DI-capable meters, while customer-selected energy management firms are left with inferior customer insights? Utilities with these advanced meters could easily exclude and penalize energy management firms by declining to provide them with equal, non-discriminatory access to the meters' DI capabilities. A utility could reserve the highly-detailed, granular analysis of usage data for itself, while depriving market actors of access to the same. A utility could also, for example, grant an energy management firm access to deploy DI apps only if that firm agreed to say positive things about the utility; refrained from offering energy management tools or services

that the utility believes are similar to its own; recommend that customers switch to natural gas appliances; or agreed to any number of other arbitrary, unfair or anti-competitive restrictions.

In short, the opportunities for anti-competitive conduct by virtue of a utility's exclusive control over the DI "app store" are substantial. Given the fact that AMI is funded by ratepayers, the Commission needs to carefully (i) assess whether and how advanced meters made by Itron create privacy and market power concerns in Washington and (ii) determine how to thoroughly address these concerns in the present rulemaking. By postponing the rule adoption hearing's consideration of WAC 480-90-153 and WAC 480-100-153, the Commission can ensure that its electric and gas rules both comprehensively address new advanced metering technologies and maximize benefits to ratepayers.

2. Washington Can Learn From Comprehensive Data Portability and Data Privacy Rules Developed Earlier This Year

In addition to the issues raised by DI-capable advanced meters that have not been discussed by the Commission, recent developments in comprehensive data portability and data privacy policy warrant consideration by the Commission. In February, 2020, Mission:data and North Carolina Attorney General Josh Stein submitted a first-of-its-kind draft data privacy and portability rule (the "NC Draft Rule") to the North Carolina Utilities Commission (NCUC). The NC Draft Rule, developed over six months between Mission:data and the Attorney General's Office (AGO), would require electric utilities to adhere to one of the best data privacy regimes in the country while simultaneously requiring state-of-the-art data portability so that utility consumers can access new energy-saving products and services that help reduce monthly utility bills. ("Access" refers to a customer's right to obtain his or her own information, whereas "portability" refers to a customer's ability to have his or her data shared by a utility with an authorized third party.) The AGO's privacy work is led by Jolynn Dellinger, Special Counsel for Privacy Policy and Litigation. Ms. Dellinger is an expert in privacy law, serving as a Senior Lecturing Fellow at the Duke University School of Law and an Advisory Board Member to the Future of Privacy Forum. Mission:data believes the Washington Commission should carefully review the work done in North Carolina because it was developed by experts, is based upon the federally-recognized Fair Information Practices (FIPs), and comprehensively addresses the

responsibilities of utilities, contractors to utilities, and customer-authorized third parties. The NC Draft Rule was guided by lessons learned across the U.S. and was designed to enable customer choice and access to new, digital services from non-incumbent market actors.

Instead of seeing tension between data portability and data privacy, the NC Draft Rule reflects the view that conflict between access and privacy is not inevitable. If a customer knowingly chooses to share his or her information with a particular entity, then data access is not a detriment to privacy; instead, it becomes an enabler of new products and services. Such products and services are not available from incumbent utilities and it is not reasonable to expect that regulated utilities can or should provide customers with innovative new technologies such as smartphone “apps” that help manage household energy bills or software that interfaces with Internet-of-Things devices. Thus, a policy that focuses too heavily on privacy would deprive customers of access to a wide range of innovative solutions to cost-effectively manage their energy usage. The utilities cannot be expected to provide those solutions and if the rules prevent access to underscore privacy, service providers who can provide the innovations will not have the information and data necessary to do so. For these reasons, Mission:data sees privacy and access as two sides of the same coin. They can and should be considered together.

Using the NC Draft Rule as a best practice privacy and portability framework, Mission:data below identifies sections of the proposed modifications to WAC 480-90 and WAC 480-100 that should be modified. Detailed explanations of each proposed modification are found below.

1. Definition of customer information: Currently, the definition excludes EE/DSM eligibility information. This should be reversed because customers should be able to simply and easily share their customer information with a third party, who can then determine what programs or alternative rates are appropriate for that customer. In other states such as California, a “friction point” inhibiting customers’ ability to enroll in demand management programs has been the difficulty associated with determining a customer’s eligibility. A third party can help customers in large numbers evaluate what rates or programs are appropriate for them, but only if such information is easily accessible. Of course, this modification should also be accompanied by an affirmative

right of customers to share their customer information with any third party of their choosing.

2. Unshareable information: While the breadth of the definition of “customer information” can be useful in some ways, it is unhelpful and detrimental to customer privacy to the extent it includes particularly sensitive information gathered by utilities such as social security numbers, bank account numbers and credit card numbers. Mission: data believes the data access and privacy rules would be strengthened by defining unshareable information, as the NC Draft Rule does on page 2.
3. Delineating utility responsibilities: The NC Draft Rule more clearly defines utility responsibilities for securing data *in transit* to a customer-authorized third party. This section should be modified (WAC 480-100-153(8), and its accompanying gas rule): “If a customer discloses or directs the utility to disclose customer information to a third party other than in response to a request or requirement of the utility, the utility will not be responsible for the security of that information or its use or misuse by that third party.” An improved standard is in section (f)(1) of the NC Draft Rule, which obligates utilities to provide customer information to customer-authorized third parties using standardized, electronic methods, including to ensure “the continued privacy of the data *in transit* from a utility to an authorized third party.”
4. “No more onerous” standard for customer authentication and authorization when sharing data with a customer-authorized third party. A key restriction on customers taking advantage of their detailed energy usage information as a result of advanced metering has proven to be the difficulty with which the information can be shared. In California, for instance, a paper-based consent form was identified as a key barrier to customers sharing their energy usage information with demand response providers. While the paper form was turned into a web-based form, it was still highly onerous to complete; in one case, the online form required the user to accept over 10 different “screens,” resulting in significantly decreased enrollment in demand response. This contrasted with the simple, streamlined process by which a customer could enroll in electronic billing on the utility’s website. To address the disparity between these user experiences, the California Commission established the “no more onerous” standard, which states that customer

authentication in the context of a data-sharing request should be no more onerous than a utility's process for creating an online account.¹⁰ This ensures that utilities must treat customer data-sharing requests on a non-discriminatory basis and cannot preference online functions that provide greater benefit to the utility. At the same time, the "no more onerous" standard does not specify *how* a customer's identity should be authenticated; it leaves that to the discretion of the utility. Most utilities require customers to provide their utility account number, telephone number, or possibly the last four digits of their social security number in order to create an online account.

Proposed rule WAC 480-100-153-9(d) (and its accompanying gas rule) states:

"Verification that the consenting customer's name, service address, and account number match the utility record for such account." Mission:data proposes that this be replaced with the following: **"Verification of the consenting customer's identity shall be established in a manner substantially similar to, and no more onerous than, the utility's process for establishing an online account."**

5. Time to respond to customer data requests is excessive (WAC 480-90-153-15 and WAC 480-100-153-15): The draft rule gives utilities 10 business days to process a request for customer information. This is unreasonably long for utilities with AMI. Modern consumers expect instant, digital access to online services today. One of the core investments of AMI is computer software and automation; for those utilities with AMI, requests can and should be processed and delivered almost immediately. In fact, if a utility with AMI *cannot* process such a request immediately, a 10-day response time would indicate that a manual, expensive and inefficient process is being utilized instead of an automated one. It is understandable that utilities with traditional metering would have manual processes, but utilities with AMI should have automated ones. At a minimum, utilities with AMI cannot prudently have manual procedures for collecting and transmitting energy usage information. For these reasons, Mission:data proposes that subsection 153(15) for both the electric and gas rules be replaced with the following:
"Utilities with at least 50% deployment of advanced meters shall respond to requests from customers for their own account and usage information immediately via the utility's

¹⁰ California Public Utilities Commission. Resolution E-4868. Dated August 24, 2017 at 15-16.

website. Utilities with less than 50% deployment of advanced meters shall respond to requests from customers for their own account and usage information within 3-5 business days.”

6. The rules must prohibit utilities from imposing terms and conditions upon third party recipients of customer information. One of the

“A utility may not impose terms and conditions upon customer-authorized third parties.”

There are several other topics that are addressed in detail in the NC Draft Rule that are not reflected in the Commission’s latest draft rules. For example, the principles of notice and control, data minimization, aggregation standards, and eligibility criteria for customer-authorized third parties are all spelled out in great detail and are laid out according to the universally-recognized Fair Information Practices. For these reasons, Mission:data urges the Commission to postpone the adoption of rules WAC 480-90-153 and WAC 480-100-153 until such time as best practices from other jurisdictions can be fully considered.

Finally, if the Commission nevertheless wishes to adopt rules WAC 480-90-153 and WAC 480-100-153 as written in their current form, Mission:data notes the following two issues that should be considered:

1. Web-based account access and e-billing should not come with “strings attached”: It has come to our attention that, in some states, utilities will deprive customers of online access to PDFs of their monthly bills unless the customer agrees to discontinue paper billing by U.S. mail, or unless the customers agrees to make automatic payments. This practice represents the deliberate “crippling” of online services in order to coerce customers into conforming with behaviors desired by the utility, but it is particularly problematic for some customers, such as small businesses, who continue to rely on paper invoices to meet their accounting needs and fiscal controls, but who may want online access to their complete billing and usage history from time to time. For these reason, Mission:data proposes modifying WAC 480-100-178(4) and WAC 480-100-178(4) to read: “(4) With the consent of the customer, a utility may provide billings in electronic form if the bill meets all the requirements for the use of electronic information in this chapter. The utility

must maintain a record of the consent as a part of the customer's account record, and the customer may change from electronic to printed billing upon request, as provided in this chapter. The utility must complete the change within two billing cycles of the request. **A utility may not diminish a customer's online access to information for any reason, including, but not limited to, the customer's billing or payment preferences.**"

2. Clarify a mistake in WAC 480-100-318(5): The following should be modified to clarify that advanced meters should measure energy usage at a maximum of 60 minutes, meaning that shorter intervals are preferable: "Measuring devices that have the capability to do so must measure all energy sold to customers at a ~~minimum~~ **maximum** of sixty-minute intervals for residential customers and fifteen-minute intervals for nonresidential customers."

Thank you for the opportunity to provide comment.

Dated: June 22, 2020

Respectfully submitted,

FOR MISSION:DATA COALITION, INC.

_____/s/_____
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February 10, 2020

VIA ELECTRONIC FILING

Ms. Kimberly A. Campbell
Chief Clerk
Office of the Chief Clerk
North Carolina Utilities Commission
4325 Mail Service Center
Raleigh, NC 27699-4325

Re: Docket E-100, Sub 161

Dear Ms. Campbell:

Enclosed please find Mission:data Coalition's comments and proposed rules to be filed in the above referenced docket. By copy of this letter, all parties of record are being served.

 /s/
Kurt J. Olson, Esq.
Counsel for Mission:data
Coalition

cc: Counsel of Record

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

In the Matter of:)
)
Commission Rules Related) COMMENTS AND PROPOSED RULES
To Customer Billing Data) BY MISSION:DATA COALITION
)
)

COMMENTS AND PROPOSED RULES

Pursuant to the North Carolina Utilities Commission’s (the “Commission”) February 4, 2019, Order, as amended, and the Commission’s Rules of Practice and Procedure, the Mission:data Coalition (“Mission:data”) hereby files the following comments and proposed rules in the above-captioned docket. Energy usage data, billing data and account data have a vital role in achieving an efficient energy market. Access to this data allows consumers to bring about informed changes in habits, practices and design; provides a basis for authorized third-parties to advise and assist consumers in modifying their energy use; and enables energy management software and devices to automatically control energy usage in homes and businesses. All of this can be achieved in a balanced data access regime, one that acknowledges the need for access to energy billing, account and usage data while also recognizing the privacy concerns inherent in any program that contemplates the disclosure of consumer information.

Draft rules for implementing such a balanced data access program are set forth in Appendix B, hereto. These proposed rules reflect the state-of-the-art and are derived from experience gained and lessons learned in multiple similar undertakings throughout the country. The rules are comprehensive both from a sense of what can be done and what needs to be done

to implement permission-based data exchanges while also acknowledging and advancing legitimate privacy concerns.

Mission:data's core pursuit is the development and implementation of sound data access policies. It has participated in and provided much needed expertise in proceedings throughout the country. This background and broad experience inform the comments that follow and underly the attached draft proposed rule. Mission:data has also worked closely and collaboratively with the North Carolina Attorney General's Office and other participating parties in formulating its comments and the draft rules.

COMMENTS

1. BACKGROUND

Mission:data is very pleased to submit for the Commission's consideration the attached data access and data privacy rule set forth in Appendix B, hereto (hereinafter referred to as the "Draft Rule"). The Draft Rule would replace existing Rule R8-51 in the Commission's Electric Light and Power Rules in its entirety and is the product of a unique and comprehensive collaboration between Mission:data and the North Carolina Attorney General's Office ("AGO") occurring over the past six (6) months. The Draft Rule is an important development because it combines the best data access provisions with the best privacy protections.

Over the past six years Mission:data has participated in similar rulemaking efforts across 15 state jurisdictions. Given this experience, Mission:data believes that the Draft Rule represents one of the most thorough and detailed programs developed to date in the United States. The Draft Rule sets forth privacy protections for North Carolina consumers that go well beyond those currently provided. Simultaneously, it provides consumers data access that allows for full utilization of the energy

information collected in today's market by advanced metering infrastructure ("AMI") and related information technology systems owned and operated by electric and natural gas utilities. The ability to access and share this data will lead to more efficient energy use and economically managed monthly energy bills.

To date, data access and data privacy have not been addressed comprehensively in North Carolina. The issues first arose in earnest in 2016 in connection with the deployment of AMI and other smart grid technologies by Duke Energy Carolinas, LLC ("DEC") and Duke Energy Progress, LLC ("DEP") and were primarily addressed in the utilities' Code of Conduct. Since then, and before the present docket, there have been only discrete, incremental measures taken to assimilate the benefits of AMI and other technologies so that consumers too can benefit from the substantial ratepayer investments in these and other data-collection systems.¹

Meanwhile, significant headway in both data access and data privacy has been achieved in other jurisdiction across the country. *See e.g.*, Appendix A, hereto (listing the states that have (i) completed data access/privacy investigations or rulemakings or (ii) have ongoing proceedings). Large-scale deployments of AMI, privacy breaches in both the utility industry and in other sectors of the economy, recent attention to the prevalence of "data monopolies" in the digital economy, and related anti-trust concerns have all heightened interest and progress in data access and data privacy. *Id.* There is undeniable interest and activity in these topics and the Commission's decision to initiate a comprehensive investigation of these matters in this docket is indeed prescient and timely.

Mission: data and the AGO designed the Draft Rule to be state-of-the-art, fully informed by recent events involving data privacy risks and incorporating the best ways to manage those risks. The

¹ For example, the Commission required DEC and DEP to file Smart Grid Technology Plans ("SGTPs"), and further required DEC and DEP to convene stakeholder meetings regarding access to customer usage data. A thorough examination and resolution of issues relating to data access and data privacy, however, has not occurred until now.

rules are guided by lessons learned and are designed to enable customer choice and access to new, digital services from non-incumbent market actors. The Draft Rule blends the benefits of data access and the risks inherent thereto and addresses these features directly and holistically.²

Put another way, instead of seeing tension between data access and data privacy, the Draft Rule reflects the view that conflict between access and privacy is not necessarily inevitable. If a customer knowingly *chooses* to share his or her information with a particular entity, then data access is not a detriment to privacy; instead, it becomes an enabler of new products and services. Such products and services are not available from incumbent utilities and it is not reasonable to expect that regulated utilities can or should provide customers with innovative new technologies such as smartphone “apps” that help manage household energy bills, or sophisticated energy management software for Fortune 1000 companies with hundreds or thousands of buildings nationwide. Thus, a policy that focuses too heavily on privacy would deprive customers of access to a wide range of innovative solutions to cost-effectively manage their energy usage. The utilities cannot be expected to provide those solutions and if the rules prevent access to underscore privacy, service providers who can provide the innovations will not have the information and data necessary to do so. For these reasons, Mission:data sees privacy and access as two sides of the same coin. They can and should be considered together, as illustrated in the enclosed Draft Rules.

² Mission:data has added a small number of changes to the Draft Rule since consensus was reached with the AGO. They are minor and highlighted and underscored in the draft in Appendix B. Given time constraints and the February 10, 2020, filing deadline, Mission:data and the AGO were not able to discuss and agree on these minor additions. Agreement has been reached on all other aspects of the Draft Rule and Mission:data is confident that agreement will be reached on the highlighted minor additions. To avoid any misunderstanding, however, Mission:data accentuated these minor additions. We look forward to working with the parties to this docket on these issues.

2. REPLY COMMENTS ARE WARRANTED

Given the complexity and importance of the topics in this docket and the fact that multiple, detailed draft rules are only being filed now, Mission:data hereby respectfully requests that the parties to this proceeding have the opportunity to file reply comments. Further, given the notice and comment format for this proceeding and the likelihood that the Commission will receive multiple versions of draft rules, Mission:data requests that the Draft Rule in Appendix B, hereto, be used as the template for the reply comments.

This docket has been on-going since January 31, 2019. During the intervening period, numerous draft rules have been circulated among interested parties. It is evident from a comparison of the shared drafts that the Draft Rule is the most comprehensive, far more comprehensive than either Public Staff's informal drafts or the Duke Energy companies' Code of Conduct and as such, addresses and resolves important relevant issues not covered in the other proposed drafts.

For example, the Public Staff shared several versions of a draft rule, most recently on February 3, 2020. Although this last draft is well conceived in part, there are important points that are not addressed. For instance, the Draft Rule (Appendix B) carefully distinguishes between "primary purposes" and "secondary purposes" and provides that a utility may share customer data with contractors without customer consent if it is necessary to serve a "primary purpose" – that is, a regulated utility service. The rule further delineates the responsibility of utilities to ensure that their contractors – and their contractors' contractors – abide by privacy protections when customer data is given to them in order to serve a primary purpose. This is especially important given the widespread use of information technology contractors today and is not addressed in the Public Staff's proposed rule. Mission:data notes that many other states – including California, Colorado and Michigan – have

rules that distinguish between primary and secondary purposes and address utility contractors' use of customer data.

Similarly, the Public Staff's draft provides customers with certain rights to share their data with third-parties, and requires the use of the North American Energy Standard Board's ("NAESB") Req. 21, the Energy Services Provider Interface ("ESPI"), as the electronic machine-readable format for transmitting customer data to customer-authorized third parties beginning January 1, 2022.

Mission: data supports this provision in the Public Staff's proposed rule. However, given important developments and lessons learned in other jurisdictions, the simple mention of ESPI alone is not sufficient to ensure that customers have meaningful control over data held by a utility. The details of the consent process (electronic and otherwise), the customer experience, response times to such requests and revocation procedures are all important details that must not be left to a utility's discretion. The Draft Rule addresses these issues, the Public Staff's proposal does not.³

The Draft Rule thoroughly covers a wide range of complex, intertwined issues concerning data access and data privacy. Commenting on this broad, comprehensive draft will solicit richer and more detailed feedback from the parties and help the Commission make a more informed decision about both major and minor issues involved. Conversely, using other parties' draft rules as the basis for reply comments would deprive the Commission of many important lessons learned and

³ The utilities' Codes of Conduct also are not well-suited as a means to address data access and data privacy matters. These Codes typically arise from concerns regarding the exercise of market power following mergers and only incidentally involve customer privacy. Indeed, the Code of Conduct most recently approved by the Commission in Docket E-2, Sub 1095 on September 29, 2016, arose from a merger and was never intended to serve as the basis for protecting ratepayer data privacy. *See, id. Order, Finding of Fact 58-63* at 17 (September 29, 2016) (finding that all six (6) risks addressed by the Code of Conduct pertain to transactions between affiliates including self-dealing, cost allocation/cross subsidization, and independence in the context of natural gas pipeline capacity scheduling and operation of gas-fired electric generators). To the extent the Code of Conduct addresses privacy or the transmission of customer data to non-affiliates at all, it merely requires that customers provide consent, and that the requested data be shared "on a non-discriminatory basis" *Id.* at Attachment A. The intricacies of data access and privacy are not adequately addressed.

consequential subtleties that will have significant impacts on both customers' privacy and customers' ability to realize the benefits of AMI and other data collection technologies.

WHEREFORE, Mission:data respectfully requests that the Commission grant reply comments, and proffer the Draft Rule attached hereto in Appendix B as the template for such comments. Alternatively, Mission:data respectfully requests that the Commission adopt the Draft Rule as the new R8-51 in the Commission's Rules.

Respectfully submitted this the 10th day of February, 2020.

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APPENDIX A

Green Button Connect: State-Level Policy Summary

<i>State</i>	<i>Technical standard required by Commission</i>	<i>Energy usage data</i>	<i>Other non-usage data</i>	<i>Third party eligibility criteria</i>
California (E-4868, D1309025, Rule 24/32)	Green Button Connect (GBC)	48 months interval usage history; ongoing 15- or 60-minute readings every day	Bill details, account information such as premise addresses and account numbers, information necessary for participation in demand response programs	Must not be on the Commission-maintained list of “banned” third parties
Colorado (16A-0588E)	“A nationally-recognized open standard and best practice.” GBC today, and utility has burden to prove GBC is no longer appropriate	15-minute readings every day (historical data length to be decided in 2021)	To be decided in 2021	None. Rule 3027(e) says, “Nothing in these rules shall limit a customer’s right to provide his or her customer data to anyone.”
Illinois (17-0123, 15-0073, 14-0507)	Green Button Connect (GBC)	24 months interval usage history; ongoing 30-minute readings every day	None at this time	None
New York (15-M-0180, 14-M-0101)	“Green Button Connect or alternate standard with similar functionality”	24 months interval usage history; ongoing 5-minute or 15-minute readings every day	Billing amounts, service address(es), account number(s), meter number(s), “ICAP” tag needed for demand response, other items such as rate class	Must sign a Data Security Agreement
Texas (47472)	Green Button Connect API	24 months interval usage history, ongoing 15-minute readings every day	None, as Smart Meter Texas only has access to usage data	None

<i>State</i>	<i>Standard authorization language for customers</i>	<i>Commission jurisdiction over third parties</i>	<i>I.T. performance monitoring & transparency</i>	<i>User experience requirements</i>
California	None (except for lengthy privacy policy)	Commission claims jurisdiction over any entity receiving utility-held data about 11 or more customers per D.11-07-056, but courts have not yet weighed in	Website must show real-time performance statistics including availability, “funnel” metrics and start-to-finish times	Extensive – 2 screens and 4 “clicks” (see E-4868), no account required at utility website, optimization for mobile devices required
Colorado	Yes, approved in 15A-0789E	None	Annual testing and reporting on I.T. system availability and performance metrics	Xcel will work to “minimize the number of screens and clicks required” and minimize the time lag between authorization and data transmission
Illinois	Yes, approved in 15-0073	None yet; a contested issue (see 15-0073, 17-0123)	None	Being discussed in 17-0123
New York	Not specified by the Commission	Commission claims jurisdiction but has no requirements at this time beyond “truth in advertising” (15-M-0180 DER Oversight Order, Oct 19, 2017)	None	The terms and conditions should make it no more difficult for a DER provider, for whom a customer has provided consent, to access data than it is for the individual customer to access data (18-M-0084 Order 12/13/18).
Texas	Yes (to be resolved in compliance filing)	None	99.5% uptime requirement and monthly reporting on various metrics	Detailed specifications include: no online utility account requirement, one click to confirm from email link

States with ongoing data privacy and data access proceedings not listed above

- **Arkansas** – 16-028-U, “In the Matter of an Investigation of Policies Related to Distributed Energy Resources,” considering Green Button Connect, privacy and DER aggregation issues
- **Georgia** – 42516, Georgia Power Rate case, in which the Commission ordered Georgia Power to provide data access proposals to be implemented by January 1, 2022
- **Hawaii** – 2018-0088, “Investigation of Performance-Based Ratemaking,” considers performance-based incentives for “access to utility system information, including but not limited to public access to electric system planning data and aggregated customer energy use data and individual access to granular information about an individual customer’s own energy use data” pursuant to SB2939
- **Maryland** – RM62, Rulemaking considering data privacy and data access for customer-authorized third parties
- **Michigan** – U-18120, “Promulgating rules governing the billing of residential and nonresidential electric and natural gas service,” which led to Data Privacy Tariffs and ongoing workshops concerning customer data access
- **New Hampshire** – DE19-197, “Development of a Statewide, Multi-Use Online Energy Data Platform” pursuant to SB284
- **New Jersey** – Q019010040 regarding Energy Efficiency, considering best practices for data access and data privacy for the meeting the state’s clean energy targets
- **Ohio** – PowerForward, considering standardized access to customer energy usage data for third parties “as a fundamental and core component of the platform” in order to “better enable customer choice...so they can manage their energy usage, adopt technologies that will provide benefits and drive systemic benefits for the grid”
- **Texas** – 47416, “Application of Entergy Texas for Approval of Advanced Metering System Deployment Plan,” concerning how third parties can access customer data with customer permission and related terms and conditions for such access
- **Washington** – U-180525, “Rulemaking to modify existing customer protection and meter rules to include Advanced Metering Infrastructure,” considering both data access and data privacy as advanced meter deployment is underway

APPENDIX B

Rule R8-51. CUSTOMER AND THIRD-PARTY DATA ACCESS and PRIVACY.

(a) Definitions.

- (1) “Aggregated data” means usage data, alone or in combination with other data such as energy savings data at a premise, from which sufficient identifying information has been removed such that an individual, family, household, residence, or customer cannot reasonably be identified or re-identified.
- (2) “Application programming interface” or “API” means a utility’s internet-based system that securely provides customer data to customer-authorized third-parties using machine-to-machine communications.
- (3) “Authorized third party” means a third party that has received authorization from a customer to access, receive, collect, store, use, or disclose standard customer data and that obtains the information from a utility.
- (4) The “Commission” is the North Carolina Utilities Commission.
- (5) “Covered information” means any information that is “standard customer data,” “unshareable personal data,” or “usage data” as defined in this rule. Covered information does not include, however, aggregated data. Covered information also does not include information provided to the Commission pursuant to its oversight responsibilities.
- (6) The “primary purposes” for the collection, storage, use or disclosure of covered information are to:
 - (i) Provide or bill for electrical power;
 - (ii) Provide for system, grid, or operational needs;
 - (iii) Provide services as required by state or federal law or as specifically authorized by an order of the Commission; or
 - (iv) Plan, implement, or evaluate demand response, energy management, or energy efficiency programs under contract with a utility, under contract with the Commission, or as part of a Commission-authorized program conducted by a governmental entity under the supervision of the Commission.
- (7) “Secondary purpose or use” means any purpose or use that is not a primary purpose or use.
- (8) “Standard customer data” means
 - (i) all energy usage data collected by a meter that a utility maintains as part of its regular records in the ordinary course of business, including kilowatt-hours used,

load profile, and, where applicable to certain rate classes, kilo-volt-amperes-reactive, power factor, and the like;

(ii) customer-specific information including customer name, mailing address, premise address, any contact information, payment history, account number(s), and all information on bills including, but not limited to, line item charges and charge descriptions, amounts billed, the rate or tariff applicable to the account or meter, billing cycle dates, etc.; and

(iii) any information that might be necessary for participation in, or to determine customer eligibility for, bill payment assistance, renewable energy, demand-side management, load management, or energy efficiency programs.

Standard customer data does not include unshareable personal data.

- (9) "Unshareable personal data" means the birth date, social security number, biometrics, bank and credit card account numbers, driver's license number, credit reporting information, bankruptcy or probate information, health information, or network or internet protocol address of the customer or any person at the customer's location. This personal information is specifically excluded from the definition of standard customer data and, as stated in section (d)(9) of this Rule, will not be shared by a utility with any party other than the customer.
- (10) "Usage data" is all energy usage data collected by a meter including but not limited to kilowatt-hours used, load profile, kilo-volt-amperes-reactive, power factor, kW, or voltage.
- (11) For purposes of this rule, the word "utility" has the same meaning as is defined in Rule R8-2.
- (12) For purposes of this rule, a "utility contractor" means any third party that provides services to a utility under contract with that utility.

TRANSPARENCY (NOTICE OF USE OF CUSTOMER INFORMATION)

(b) Notice.

- (1) Generally. – Utilities shall protect covered information in their possession or control to maintain the privacy of customers. Utility contractors' permissible uses of data and obligations to protect data are governed by contract with the utility as set forth in section (d) of this rule.
- (2) Notice Requirement. – Utilities shall provide customers with meaningful, clear, accurate, specific, and comprehensive notice regarding the accessing, collection, storage, use, and intentional disclosure of covered information. Utilities shall also provide such notice regarding the compilation, use, and disclosure of aggregated data.

- (3) When Provided. – Utilities shall provide a written notice that meets the requirements of subdivision (b)(2) when confirming a new customer account, and at least once a year, utilities shall inform customers how they may obtain an updated copy of this notice. Utilities shall provide a conspicuous link to such notices under subdivision (b)(2) on the home page of their websites. Moreover, utilities shall include a link to the notice in all electronic mail to customers. Utilities shall also provide this notice upon request by any party.
- (4) Form. – The notice, which may take the form of or be included in a privacy policy, shall be labeled “Notice of How We Gather, Use and Disclose Your Information” and shall:
- (i) Be written in easily understandable language; and
 - (ii) Be no longer than is necessary to convey the requisite information.
- (5) Content. – The notice shall state clearly:
- (i) The identity of the utility;
 - (ii) The effective date of the notice;
 - (iii) The utility’s process for altering the notice, including how the customer will be informed of any alterations and where prior versions will be made available to customers; and
 - (iv) The title and contact information, including email address, postal address, web address, and telephone number, of an official at the utility who can assist the customer with privacy questions, concerns, or complaints regarding the collection, storage, use, or disclosure of covered information or aggregated data.

The notice shall also:

- (v) Include a description of the standard customer data made available to customers;
- (vi) Indicate the frequency with which standard customer data can be provided;
- (vii) Explain that disclosure of customers’ data to third parties affects customer privacy, providing insight into their energy-consuming behaviors and permitting inferences about customers’ daily activities, absences from the home or business, patterns of behavior, and lifestyle;
- (viii) Explain that customers, before they authorize the disclosure of their data to third parties, should consider how the third party would be able to access and use their data;

- (ix) Explain that the privacy and security of customer account and usage data will be protected by the utility while the data is in the utility's possession or control, but that the utility is not responsible for the privacy or security of the data after it has been transferred successfully to the customer or to an authorized third party;
 - (x) Identify any charges that may be applicable for customers to access data that are not standard customer data;
 - (xi) State that standard customer data will not be disclosed to third parties without customers' express, written consent in a manner and form approved by the Commission;
 - (xii) Explain the utility's policies regarding the manner in which a customer can authorize access and disclosure of covered information to third parties;
 - (xiii) Describe how the customer can terminate authorized third-party access to covered information; and
 - (xiv) Inform customers that covered information may be used to create aggregated data that will not contain customer-identifying information, and that the utility may provide such aggregated data to third parties subject to Commission Rule R8-51.
 - (xv) Explain that unshareable personal information will not be shared by a utility with any party other than the customer at any time.
- (c) Purpose Specification. – The notice required under subsection (b) shall also provide:
- (1) An explicit description of:
 - (i) Each category of covered information collected, used, stored or disclosed by the utility, and, for each category of covered information, the reasonably specific purposes for which it will be collected, stored, used, or disclosed.
 - (ii) Each category of covered information that is disclosed to third parties, and, for each such category:
 - (a) The purposes for which it is disclosed; and
 - (b) The categories of third parties to which it is disclosed.
 - (iii) The specific identities of those authorized third parties to whom data is disclosed for secondary purposes, and the secondary purposes for which the information is disclosed.
 - (2) The approximate period of time that covered information will be retained by the utility or utility contractor.

- (3) A description of:
 - (i) The means by which customers may view, inquire about, or dispute their covered information; and
 - (ii) The means, if any, by which customers may limit the collection, use, storage or disclosure of covered information and the consequences to customers if they exercise such limits.

USE AND DISCLOSURE LIMITATION

- (d) Use and Disclosure Limitations.
 - (1) Generally. – Utilities are authorized to use covered information to provide regulated utility service in the ordinary course of business. Providing such service is a primary purpose.
 - (2) No Sale of Customer Information. – Utilities may not sell information about customers or covered information, other than aggregated data, for consideration of any kind.
 - (3) Use of Covered Information by a Utility for Primary Purposes. – A utility may access, collect, store and use covered information without customer consent, provided the use is for primary purposes and no disclosure is made to a utility contractor except as allowed by section (d)(4) below.
 - (4) Disclosure by a Utility Without Customer Consent. – A utility may disclose standard customer data to a utility contractor without customer consent only:
 - (i) When explicitly ordered to do so by the Commission; or
 - (ii) For a primary purpose being carried out under contract with and on behalf of the utility disclosing the data; provided that the utility shall, by contract, require the utility contractor to agree to use the data only for the primary purpose and to access, collect, store, use, and disclose the information pursuant to policies, practices and notification requirements no less protective than those under which the utility itself operates as required under this rule, unless otherwise directed by the Commission. As part of this contractual agreement, utilities shall require utility contractors to provide similar contractual protections for standard customer data in the context of all subsequent disclosures for primary purposes.
 - (5) Terminating Disclosures to Entities Failing to Comply with Their Privacy Assurances. – When a utility discloses standard customer data to a utility contractor under this subsection (d), it shall specify by contract, unless otherwise ordered by the Commission, that it shall be considered a material breach if the contractor engages in a pattern or practice of accessing, storing, using or disclosing the information in violation of the party's contractual obligations to handle the information pursuant to policies no

- less protective than those under which the utility from which the information was initially derived operates. If a utility determines in good faith that a utility contractor is in breach of its contract for this reason, the utility shall promptly cease disclosing the information to the contractor.
- (6) **Ban on Disclosure for Secondary Purposes Without Consent.** – No utility shall use or disclose standard customer data to any party for any secondary purpose without obtaining the customer’s prior, express, voluntary, authenticated authorization for each distinct secondary purpose. This authorization is not required when information is:
- (i) Provided pursuant to a legal process;
 - (ii) Provided in situations of imminent threat to life or property; or
 - (iii) Specifically authorized by the Commission pursuant to its jurisdiction and control.
- (7) **Requirements for Authentications of Consent.** Customer authorizations to disclose customer data are authenticated, under this Rule, if the customer’s identity is established in either oral, electronic or non-electronic form and can be documented by the utility. Separate authorization by each customer must be obtained for all secondary uses of covered information by a utility.
- (8) **Form of Consent.** – The customer consent form or process must be approved by the Commission, and shall include:
- (i) Information to adequately identify the customer, consistent with, and no more onerous than, a utility’s authentication practices when a customer creates an online account on a utility’s website or when a customer calls the utility by telephone;
 - (ii) The intended purpose and the use of the data being requested;
 - (iii) The time period (e.g., months, years) during which the secondary use will take place;
 - (iv) The category of information to be shared, with a succinct description of each; and
 - (v) Commitment to the customer that the utility shall be responsible for using the data only for the authorized secondary use and that the utility will continue to protect the privacy and security of the data in accordance with this rule.

If a consent is made by electronic means, the information provided shall be in spoken form, displayed on a screen, or otherwise displayed to the customer via the customer’s preferred contact method. If a consent is made by oral means, the information listed in sections (i) through (iii) shall be obtained and provided in spoken form, but the commitment to the

customer in section (iv) may be provided either in spoken form or by directing the customer to a website that provides the commitment to the customer.

- (9) **Ban on Disclosure of Unshareable Personal Data.** – Nothing in this Rule shall allow, and utilities shall be prohibited from, providing unshareable personal data to any party other than the customer. However, network or internet protocol addresses may be shared by a utility to a utility contractor for a primary purpose.

CUSTOMER ACCESS AND CONTROL

(Individual Participation)

(e) **Customer Access and Control.**

- (1) **Quality and Quantity of Standard Customer Data.** – A utility shall maintain at least 24 months of standard customer data, or the period of time that a customer has had an account at a given address, whichever is less, in sufficient detail for a customer to understand his or her energy usage. The frequency interval of data must be commensurate with the capabilities of the meter or network technology used to serve the customer.
- (2) **Customer Access to Standard Customer Data.** – As part of basic utility service, upon request, a utility shall provide a customer access to the customer’s own standard customer data provided in electronic machine-readable format, in conformity with nationally recognized standards and best practices concerning form and frequency, such as the latest version of the North American Energy Standard Board’s (NAESB) Req. 21, the Energy Services Provider Interface (ESPI), and in a manner that ensures adequate protections for the utility’s system security and the continued privacy and security of the customer data during transmission, except if transmitted by email.
- (3) **Cost.** – When the data requested is standard customer data and the request pertains to a time period within the previous 24 months, the request for access will be fulfilled without charge. If requests are made for information other than standard customer data or data outside the 24 months preceding the request, and utilities seek to charge customers a fee to provide such data, the utility may charge an amount that the Commission deems reasonable based on the utility’s marginal cost to provide those data.
- (4) **Control.** – Customers have the right to share their own standard customer data with authorized third parties of their choice to obtain services or products provided by those third parties and to ensure accuracy of covered information held by utilities and utility contractors. Utilities shall provide customers with convenient mechanisms for:
- (i) **Granting and revoking authorization for secondary uses of standard customer data by third parties;**

- (ii) Disputing the accuracy or completeness of any covered information that a utility is storing or distributing for any primary or secondary purpose; and
- (iii) Requesting corrections or amendments to any covered information that the utility is collecting, storing, using, or distributing for any primary or secondary purpose.

**AUTHORIZED THIRD PARTY ACCESS
TO CUSTOMER DATA FROM A UTILITY**

- (f) Authorized Third Party Access to Standard Customer Data from a Utility.
- (1) Third Party Access upon Customer Authorization. – For the period of time during which a customer has provided consent, utilities shall grant authorized third parties access to the customer’s standard customer data in electronic machine-readable format, in conformity with nationally recognized standards and best practices concerning form and frequency, such as the latest version of the North American Energy Standard Board’s (NAESB) Req. 21, the Energy Services Provider Interface (ESPI), and in a manner that ensures adequate protections for the utility’s system security and the continued privacy of the data in transit from a utility to an authorized third party. Following receipt of a valid customer authorization as described below, utilities shall electronically deliver requested data to the third party within 90 seconds, unless the customer has requested data delivery by another method.
 - (2) Customer Authorization. – Utilities shall designate the categories of standard customer data available to authorized third parties in conformity with this rule and provide brief descriptions of those categories in plain language for customers to understand. For all methods of authorization described below, when a customer authorizes third party access, the customer will identify the categories of information the customer wishes to share. If an authorized third party specifies the data it would like permission to access, the utility shall display such request to customers using the aforementioned categorical designations. Separate authorization by each customer must be obtained for all disclosures of standard customer data except as otherwise provided for herein.
 - (3) Authorization Process. – A utility shall not disclose standard customer data to a third party unless an authorization is valid as described in this rule. A utility shall, regardless of the authorization method described in this Rule, use consistent customer information to validate the customer’s identity in a manner that is no more onerous than a utility’s authentication practices when a customer creates an online account on a utility’s website or when a customer calls the utility by telephone. A utility shall provide the following methods for any customer to grant a valid authorization: non-electronic; customer-initiated electronic; and at least one authorized third-party initiated electronic method using an API that is non-proprietary to the utility and is commonly used in the industry by other utilities.
 - (i) Non-electronic methods. Any customer may submit an authorization to a utility by at least the following methods:

- (A) By telephone, in which authorizations shall be processed, and data transmitted, within one (1) business day; or
 - (B) By mail to a utility's mailing address, in which case authorizations shall be processed, and data transmitted, within one (1) business day.
- (ii) Customer-initiated electronic methods. Any customer may submit an authorization to a utility by completing a web-based submission on a utility's website, consistent with nationally recognized standards and best practices. In this case, a utility shall allow direct online submission following completion without requiring email or an online account.
 - (iii) Customer-requested, authorized third party initiated electronic methods. A customer may interact directly with a third party and provide the third party with the customer's account number. The utility shall receive a customer's account number from the third party via API and seek authentication from the customer as well as customer consent via the customer's preferred contact method (such as by one-time passcode). Once authorized, the utility shall provide the requested data to the authorized third party via API. In this context, the utility will authenticate the customer's identity, process the request for access, and permit electronic authorization via API in a timeframe no longer than the time required for a customer to create an online account at a utility's website and access his or her standard customer data.
- (4) Requirements of authorization. For all authorization methods used, a utility shall
- (i) Enable and require the designation of the authorized third party and the customer;
 - (ii) Enable and require the specification of the purpose for sharing the data and the intended use of the data by the authorized third party;
 - (iii) Enable and require the designation of the time period (e.g., months and years of both historic and future data) for which data is being requested. The utility shall provide customers the option to authorize an ongoing provision of data that is valid until revoked by the customer or provision for a specified period of time.
 - (iv) Enable and require the designation of the categories of standard customer data being requested in accordance with (f)(2).
 - (v) Provide notice to the customer that, following access or transfer, the utility shall not be responsible for monitoring or ensuring that the third party to

whom the data is disclosed is maintaining the confidentiality of the data or using the data as intended by the customer.

- (5) **Revocation and Termination.** – Customers have the right to revoke, at any time, any previously granted authorization. Termination of electric utility service also terminates consent to disclose customer data granted by the customer for the meter(s) or premise(s) where electric utility service has been terminated. A utility shall also permit an authorized third party to terminate its authorization, in which case a utility shall subsequently notify a customer of the termination via the customer’s preferred contact method and confirm to the authorized third party that the termination is accepted.
- (6) **Opportunity to Revoke.** – The consent of a residential customer shall continue without expiration if the customer has elected ongoing provision until revocation, but the utility must contact a customer once annually to inform the customer of the authorization(s) granted and to provide an opportunity for revocation. The utility shall use electronic means to make this annual notice if the utility holds electronic contact information for the customer. The consent of a non-residential customer shall continue in the same way, but a utility must notify a non-residential customer once, upon an initial authorization, to provide an opportunity for revocation.
- (7) **Modifications.** – Changes of contact names for an organization, trade name, or utility over time do not invalidate consent as to the respective organization, trade name, or utility. Modifications to the consent form or process over time do not invalidate previous consent.
- (8) **Parity.** – Utilities shall permit customers to revoke authorization for any secondary purpose of their standard customer data by the same mechanism(s) initially used to grant authorization.
- (9) **Eligibility Determinations.** – To protect the privacy and security of covered information, utilities shall apply eligibility criteria as follows. To be eligible to receive standard customer data, authorized third parties shall be required by utilities to: (1) demonstrate technical capability to interact securely with the utility’s servers; (2) provide contact information and federal tax identification numbers to a utility; (3) acknowledge receipt and review of these privacy and access Rules; (4) not have been disqualified as an authorized third party provider in the past pursuant to processes outlined at (h)(2)-(4); and (5) adopt and comply with the most updated version of the 2015 Department of Energy’s Voluntary Code of Conduct Final Concepts and Principles for Data Privacy and the Smart Grid (the “DataGuard Seal”) or a similar nationally accepted eligibility standard approved by the Commission as a necessary, comparable, reasonable and appropriate alternative.
- (10) **Descriptive rate schedules.** – A utility shall include in its rate schedules a description of standard customer data that it is within the utility's technological and data capabilities to provide to the customer, to an authorized representative of the customer, or to an authorized third-party recipient. At a minimum, the utility’s rate schedule must provide the following:

- (i) A description of standard customer data and the frequency of updates that will be available;
 - (ii) The method and frequency of standard customer data transmittal and access available (electronic, paper, etc.), pursuant to which data is provided to authorized third parties as soon as practicable following collection of the usage data, as well as the security protections or requirements for such transmittal;
 - (iii) A reasonable timeframe for processing requests, consistent with this rule; and
 - (iv) Any fees or charges associated with processing a request for usage data.
- (11) Records of Disclosures. – The utility shall maintain records of all disclosures of covered information to third parties, including a copy of the customer’s authorization to disclose standard customer data (unless it was in oral form) and a list of the information disclosed using the categories developed by the utility under section (f)(2) of this Rule. The utility shall maintain records of standard customer data disclosures for a minimum of three years and shall make the records of the disclosure of a customer’s data available for review by the customer upon request.

LIABILITY AND COMPLAINTS

- (g) Liability. – Nothing in this Rule shall be construed to impose any liability on a utility or any of its directors, officers and employees, relating to disclosures of information when 1) the Commission orders the provision of standard customer data to a third party; or 2) a customer discloses covered data to, or authorizes access to standard customer data by, a third party that is unaffiliated with and has no other business relationship with the utility. Specifically, after a utility securely transfers covered information to a customer or standard customer data to an authorized third party pursuant to a customer’s request, nothing in this Rule shall make a utility responsible for the security of the information or its use or misuse by such customer or by a third party. This section does not apply where a utility has acted recklessly.
- (h) Complaints.
- (1) Complaints Submitted by Customers Against Utilities. Complaints from customers regarding a utility’s failure to process customer authorizations to release standard customer data pursuant to this Rule in a timely and accurate manner, or to provide eligible authorized third parties with access to a customer’s standard customer data in a timely and accurate manner, or regarding the utility’s failure to comply with this Rule in any other respect, shall be treated as complaints under Rule R1-9.
- (2) Complaints Submitted to a Utility. If a utility disclosing standard customer data to a Commission-authorized or customer-authorized third party receives a customer complaint about the third party’s misuse of data, the utility shall keep records of such complaints and submit a report to the Commission annually of any such complaints or

suspected violations. If a utility believes it is necessary to terminate an authorized third party's access to customer data, the utility shall file a request with the Commission in accordance with paragraph (h)(3).

- (3) Complaints submitted by a utility. If a utility has a reasonable suspicion that an authorized third party has engaged in conduct rendering it ineligible to access information under this Rule, the utility shall expeditiously inform the Commission and the Public Staff of any information regarding possible ineligibility.
- (4) If the Commission confirms that a third party is or has become ineligible to receive information as an authorized third party under this Rule, the Commission shall allow the utility to refrain from providing or to discontinue providing standard customer data to that party.

A utility will not be deemed to have made a reckless transmission of covered information to an authorized third party if the utility acts consistently with the process described in paragraphs (2) and (3) above.

A utility is prohibited from unilaterally revoking access to an authorized third party for any reason other than a Commission order pursuant to paragraph (4) above or a good faith belief that the third party poses an imminent danger to life, property or the cybersecurity of the utility's systems.

- (i) Penalties. – An admission to or Commission adjudication of liability for a violation of these rules may result in an assessment of a civil penalty or fine as provided by 15 N.C. Gen. Stat. 62-310 et seq.

AGGREGATED USAGE DATA

- (j) Aggregated Usage Data.
 - (1) Availability of Aggregated Usage Data. – Utilities may permit the use of aggregated usage data from which all identifiable information has been removed to be used for analysis, reporting or program management provided that the release of that data does not disclose or reveal specific customer information because of the size of the group, rate classification, or nature of the information.
 - (2) Requests for Aggregated Data Reports from a Utility. – A utility may disclose readily available aggregated data that consists of at least fifteen customers, where the data of a single customer, or of premises associated with a single customer, does not comprise 15 percent or more of the aggregated data. In aggregating customer data to create an aggregated data report, a utility must ensure the data does not include any identifiable customer data. A utility shall not provide aggregated customer data in response to multiple overlapping requests from or on behalf of the same requestor that have the potential to identify customer data.

- (3) Opportunity to Revise Requests. – If an aggregated data report cannot be generated in compliance with this rule, the utility shall notify the requestor that the aggregated data, as requested, cannot be disclosed and identify the reasons the request was denied. The requestor shall be given an opportunity to revise its aggregated data request in order to address the identified reasons.
- (4) Rate Schedules. – A utility shall file for Commission approval to amend its rate schedules to include a description of aggregated data reports available from the utility. At a minimum, the utility’s rate schedules shall provide the following:
- (i) A description of the aggregated data reports available from the utility, including all available selection parameters (usage data or other data);
 - (ii) The frequency of data collection;
 - (iii) The method of transmittal available (electronic, paper, etc.) and the security protections or requirements for such transmittal;
 - (iv) The applicable charges for providing an aggregated data report;
 - (v) The timeframe for processing requests; and
 - (vi) A form for requesting an aggregated data report to the utility identifying any information necessary from the requestor in order for the utility to process the request.

REPORTING ON DISCLOSURES PURSUANT TO LEGAL PROCESS

- (k) Disclosure Pursuant to Legal Process.

Except as otherwise provided in this rule, a court order, state or federal law, or by order of the Commission:

- (1) Reporting. – On an annual basis, utilities shall report to the Commission the number of demands received for disclosure of customer data pursuant to legal process and the number of customers whose records were disclosed. Upon request of the Commission, utilities shall report additional information to the Commission on such disclosures. The Commission may make such reports publicly available without identifying the affected customers unless making such reports public affects or would affect an ongoing criminal investigation.

DATA MINIMIZATION

- (l) Data Minimization, Generally. — Utilities shall collect, store, use, and disclose only as much covered information as is reasonably necessary or as authorized by the Commission to accomplish the reasonably specific primary purpose identified in the notice required under subsections (b) and (c) or for a specific secondary purpose authorized by the customer.

- (m) **Data Retention.** – Utilities shall maintain covered information only for as long as reasonably necessary or as authorized by the Commission to accomplish a specific primary purpose identified in the notice required under subsections (b) and (c) or for a specific secondary purpose authorized by the customer.
- (n) **Data Disclosure.** – Utilities shall not disclose to any third party more standard customer data than is reasonably necessary or as authorized by the Commission to carry out a specific primary purpose identified in the notice required under subsections (b) and (c) or for a specific secondary purpose authorized by the customer.

DATA QUALITY AND INTEGRITY

- (o) **Data Quality and Integrity.** – Utilities shall ensure that covered information they collect, store, use, and disclose is reasonably accurate and complete or otherwise compliant with applicable rules and tariffs regarding the quality of energy usage data.

DATA SECURITY

- (p) **Data Security and Breach Notification.**
 - (1) **Generally.** – Utilities shall implement reasonable administrative, technical, and physical safeguards to protect covered information from unauthorized access, destruction, use, modification, or disclosure.
 - (2) **Notification of Breach.** – Notwithstanding and in addition to any other legal requirements, a utility shall require a utility contractor providing services to a utility for a primary purpose to notify the utility that is the source of the data within one week of the detection of a breach. Upon a breach affecting 1,000 or more customers, whether by a utility or by a third party described herein, the utility shall notify the Commission of security breaches of covered information within two weeks of the detection of a breach or within one week of notification by a third party of such a breach. Upon request by the Commission, utilities shall notify the Commission of security breaches of covered information.
 - (3) **Annual Report of Breaches.** – In addition, a utility shall file an annual report with the Commission, commencing with the calendar year 2021, that is due within 120 days of the end of the calendar year, and notifies the Commission of all security breaches within the calendar year affecting covered information maintained by a utility directly or through one of its contractors.

ACCOUNTABILITY AND AUDITING

- (q) Utilities shall be accountable for complying with the requirements herein, and must make available to the Commission upon request or audit:
 - (1) The notices that they provide to customers pursuant to these rules.
 - (2) Their internal and consumer-facing privacy and data security policies.

- (3) The categories of agents, contractors and other third parties to which they disclose standard customer data for a primary purpose, the identities of agents, contractors and other third parties to which they disclose standard customer data for a secondary purpose, the purposes for which all such information is disclosed, indicating for each category of disclosure whether it is for a primary purpose or a secondary purpose. (Utilities shall retain and make available to the Commission upon request information concerning who has received standard customer data from them.)
 - (4) Copies of any secondary-use authorization forms by which the utility secures customer authorization for secondary uses of covered data.
- (r) Customer Complaints. – Utilities shall provide customers with a process for reasonable access to covered information, for correction of inaccurate covered information, and for addressing customer complaints regarding covered information under these rules.
 - (s) Training. – Utilities shall provide reasonable training to all employees and contractors who collect, use, store or process covered information.
 - (t) Audits. – Each utility shall conduct an independent audit of its data privacy and security practices in conjunction with general rate case proceedings following 2020 and at other times as required by order of the Commission. The audit shall monitor compliance with data privacy and security commitments, and the utility shall report the findings to the Commission as part of the utility’s general rate case filing.
 - (u) Reporting Requirements. – On an annual basis, each utility shall disclose to the Commission, as part of the annual report required by Rule ___, the following information:
 - (1) The number of authorized third parties accessing standard customer data.
 - (2) The number of non-compliances with this rule or with contractual provisions required by this rule experienced by the utility, and the number of customers affected by each non-compliance and a detailed description of each non-compliance.

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 10th day of February 2020.

/s/ Kurt J. Olson
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