

BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Review of the)	
Consumer Privacy Protection, Customer)	
Data Access, and Cyber Security Issues)	
Associated with)	Case No. 11-277-GE-UNC
Distributed Utility Advanced Metering)	
and Smart Grid Programs.)	

**REPLY COMMENTS OF THE
DEMAND RESPONSE AND SMART GRID COALITION (DRSG)**

I. INTRODUCTION

On October 18, 2011, the Commission requested that interested stakeholders file written comments in the above-captioned matter.

The Demand Response and Smart Grid Coalition (DRSG) is pleased to provide comments in response to the Commission's solicitation. DRSG is the trade association for companies that provide products and services in the areas of demand response, smart meters and smart grid technologies. DRSG works to educate and provide information to policymakers, utilities, the media, the financial community and stakeholders on how demand response and smart grid technologies such as smart meters can help modernize our electricity system and provide customers with new information and options for managing their electricity use. DRSG's more than 40 members include numerous technology companies and leading providers of automation products used in homes and businesses. More information is available at www.drsgcoalition.org.

DRSG filed initial comments in this proceeding in March 2011. Our comments in response to the Commission's October 18, 2011, Order are detailed below. Commission language from the Order is italicized; DRSG's response on each point follows.

II. COMMENTS

(a) Consumer privacy should be protected from unauthorized third party access.

Detailed energy data can reveal information about personal habits and activities. For this and other reasons, consumer privacy should be protected from any and all unauthorized third party access. In addition, however, detailed energy data can be very valuable in assisting consumers to understand their energy consumption. Making such data available to authorized third parties—i.e. authorized by the consumer represented by the data—allows a market to develop in home and business energy management. In such a market, as history has proven for the many open markets in our country, providers compete on price, quality, and function. Such competition is the best and perhaps only way to ensure that energy data can be put to the best and most creative uses in support of energy consumers—those who have authorized a third party to assist them.

(b) Appropriate procedures should be established for granting access to customer energy usage data (CEUD). Included in these comments were questions regarding the following specifics of transferring CEUD:

DRSG believes that it is important for the Commission and other parties to realize that there are two different aspects of data access that must be addressed—access to data via a utility data center and access to data directly from the meter. Regarding the latter, the customer should have the ability to grant *direct* access by authorized third parties to their data. The customer should also have the ability to have direct access to the meter by a customer device. The customer owns the data and should have the ability to determine who has access to that data and how fast. Direct access will result in administrative efficiencies for all parties and cost savings. In addition, as technology advances some opportunities that become available to customers may require real-time, or near real-time, data access.

(i) How will the interface for accessing CEUD be designed?

We understand this question to be the following: How will the interface for consumers to authorize third party access to their CEUD be designed?

Data from Utility Data Center

In this case we understand “access” to mean electronic access to data at the utility’s data center. This includes meter data that has been transported automatically or manually, tariff information, and billing details.

Consumers should have the ability to authorize access via a phone call to the utility that includes appropriate verification of identity, the same as when customers call the utility today to discuss their bills.

Consumers should also have the ability to authorize access via the utility's website. As with the phone, identity must be verified—in this case via the utility's standard customer login feature. Once logged in, the consumer should be able to select a "third party data access authorization" choice, then select from a list of authorized third parties. The list would be maintained by the utility based on third parties meeting requirements established by the Commission. Because the selection of a third party is behind the website login, no further authentication is needed.

Consumers should also be able to send or fax a printed form available from the utility website and with a checklist of authorized providers. The customer's signature should be on the form.

Data from the Meter

In this case, we understand "access" to mean electronic access to data directly from the meter, using a device installed at the consumer's home or business. Such access could be through a "pulse output" installed on a very small percentage of traditional meters, usually large businesses. The access could also be through a so-called "Home Area Network" (HAN) interface.

For data from the meter, what is authorized is a device, not an entity. The device needs to be authorized to ensure that data being sent from the meter is being done so securely and solely for the benefit of the consumer who is the utility customer of record.

To authorize such devices, consumers should have the ability to call the utility and have a customer service representative enable the connection between the meter and device. In addition, consumers should have the ability to login to the utility website and, once authenticated, authorize the device online by inputting information such as the serial number of the device. The Smart Meter Texas portal allows such online authorization.

Given that the customer is providing the device—which could be done by the customer's legal agent—there is no need to authorize any entities that may receive data from the customer via such device.

(ii) What should be the format of CEUD?

For exchanges between the utility and third parties—or between the meter and other devices—the CEUD should be in a standard format. The Commission should specify that utilities select from available standards but should not specify the specific standard. For access from the utility data center, one available standard—in final development and approval—is the Energy Service Provider Interface developed by the North American Energy Standards Board. For access from the meter, one available standard is ZigBee

Smart Energy Profile. We also reference the standards work being done under the auspices of the National Institute for Standards and Technology, Smart Grid Interoperability Panel, Priority Action Plans. PAP10 and PAP18, among others, are relevant. Standards included in the SGIP Catalog should be presumed available and suitable for the CEUD format—but should not be mandated.

For presentment to the customer, the Commission need not specify the graphical design. However, on utility websites, customers should be able to download their data into a standard format such as csv.

(iii) How quickly should CEUD be available and to what granularity?

In terms of a well-planned and executed information technology project of the type under consideration here, our experience is that it takes approximately 12 months from start to finish. This is generally true even if the software is available from a cloud provider or off-the-shelf. The time allows for proper planning of the specific project, configuration and system integration, and thorough testing.

In terms of ongoing data availability, real-time data access should be possible at the meter for authorized devices. As for data at the data center, it should be available within 48 hours after it is recorded.

The granularity should be whatever granularity is available. For data at the data center, this would be data at the granularity recorded by and retrieved from the meter. For example, most smart meters provide 15-minute interval data, while traditional meters are read only monthly. For direct data access to the meter by a device, the interval may be as little as every 5 seconds.

(iv) What other customer information will be included with CEUD?

For consumers to gain the full benefit of CEUD, they need price and cost information. Price information is readily available from tariffs, but not in a format easily exchanged, such as the ESPI format referenced above. Cost information includes not only the charges calculated on bills, but also any data required to determine the bill such as the starting meter read and the individual customer's rate code. Where other types of data is measured, recorded, and retrieved from the meter to the utility data center (such as demand measured in kilowatts, voltage, frequency, current, and power factor), that data should also be included in CEUD.

(v) Will multiple meters be allowed?

The context of this question is unclear. It is essential that there be only one meter of record for billing. Additional "meters" for informational purposes on the customer's side of the meter should be outside of the Commission's jurisdiction. A special case is electric vehicles, where a separate meter may be needed if there is a different tariff for

consumption by electric vehicles. In such cases, the Commission may wish to consider other options, including the vehicle's on-board meter or a second meter attached to a charger.

(vi) Who will pay for administrative costs?

Administrative costs should be shared across all utility customers for two reasons.

First, the benefits of use of CEUD save energy for the whole system, including peak demand. These energy savings translate into lower service costs for all customers, even those not actively using CEUD. In a powerful example of this, PJM calculated that the system-wide savings associated with peak demand reductions were approximately 4x the savings realized by the individual reducing peak demand.¹

Second, there are very large scale economies associated with CEUD exchange and management. Access to and exchange of CEUD via automated systems is characterized by significant upfront costs and, typically, relatively low ongoing costs. For both upfront and ongoing costs, much of the cost is fixed; that is, a utility has to build and run the entire system even if only one customer uses it. On the other hand, the marginal cost for each added user is very nearly zero, provided exceptions can be minimized—usually exceptions require manual handling, which is costly.

(c) There could be adverse consequences for prematurely adopting additional rules or policies regarding Smart Grid privacy and data access issues, i.e. "patchwork legislation," including hindering innovation, and/ or prohibiting cost-effective implementation of Smart Grid technologies.

At this point, over 27 million smart meters have already been installed in the U.S., a figure that will grow to over 65 million by 2015.² By now, numerous pilots and programs have indicated that customers like having data about their usage that they have never had before, and want to use it to reduce their energy usage and become smarter electricity consumers.

That said, this AMI investment was not premature. Smart meter technology, while comparatively young, has reached a significant level of maturity as evidence the numbers cited in the previous paragraph.

¹ - William Marcus and Greg Ruszovan, *Mid-Atlantic States Cost Curve Analysis*, prepared for The National Association of Energy Service Companies and Pace Law School Energy Project, December 5, 2000.

² - FERC, "2011 Advanced Metering and Demand Response Assessment," November 2011, <http://www.ferc.gov/legal/staff-reports/11-07-11-demand-response.pdf>

Thus, it is not premature to be investing in smart meters, and it is not premature to be considering rules and policies regarding privacy and data access. Two guidelines must govern any policy process, however. First, it must be realized that there is considerable work underway and already completed via a number of different standards setting processes and through the SGIP effort at NIST. Second, it must be realized that data privacy and access are two different things. Providing greater data access to customers should be the goal, and privacy the guideline by which it is done.

(d) The existing rules should be modified, rather than the creation of a new body of rules. In the alternative, the existing rules are sufficient to address Smart Grid consumer privacy concerns.

Because the existing rules do not contemplate the types of data, automation, exchanges, third party authorization, device authentication, and other requirements for CEUD, a new body of rules is most likely required. However, the answer to this question is more a matter of administrative efficiency in line with the Commission's own practices and procedures.

(e) Should the rules be applied only to electric sector?

No, the rules should apply to gas and water as well. The point of the rules is to provide consumers with easy, useful, and effective access to their own data—including the ability to allow third parties to access to the data to make it more valuable for the consumers themselves. This principle has led to substantial consumer convenience, savings, and satisfaction for a very wide range of Internet-based products and services.

Specifically, providing gas and water data to consumers would allow them to better manage their use of those increasingly-scarce resources, as well as to manage their budgets.

We note again that adopting best practices for data access and third party authorization—with appropriate protection for consumer privacy and data security—is a decision independent from how the Commission decides to move forward with smart grid and smart meter investments.

III. CONCLUSION

DRSG appreciates the opportunity to file comments.

Respectfully submitted this 18th day of November, 2011,

/s/ Dan Delurey

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Summary: Reply Comments of the Demand Response and Smart Grid Coalition (DRSG) in accordance with the Commission's October 18, 2011, Entry electronically filed by Mr. Paul Pietsch on behalf of Demand Response and Smart Grid Coalition (DRSG)