

May 26, 2015

Via Electronic Filing

Pennsylvania Public Utility Commission
Attention: Secretary Rosemary Chiavetta
P.O. Box 3265
Harrisburg, PA 17105-3265

Re: Docket No. M-2009-2092655, "Submission of the Electronic Data Exchange Working Group's Web Portal Working Group's Solution Framework for Historical Interval Usage and Billing Quality Interval Use"

Dear Secretary Chiavetta:

The Mission:data Coalition ("Mission:data"), a national coalition of technology companies delivering data-enabled, energy management services and solutions¹ and the Environmental Defense Fund ("EDF"), a non-profit organization whose mission is to preserve natural systems with practical and lasting solutions, are pleased to provide these comments in connection with the Commission's Tentative Order in connection with the Submissions of the Electronic Data Exchange Working Group's Web Portal Working Group's Solution Framework for Historical Interval Usage and Billing Quality Interval Use.

Because the most promising and powerful energy efficiency and management services depend increasingly upon consumers having access to their own electricity data, Mission:data and EDF engage before regulatory commissions across the country on behalf of customers having convenient, functional access to their electricity usage and pricing data

¹ With more than 30 companies representing nearly \$1.0 billion per year in sales, Mission:data and its members advance data access policies in states across the country in order to enable innovative new services, including:

- "no-touch" virtual energy audits
- an itemized or disaggregated electric bill calculated with statistical methods
- device-specific recommendations to reduce energy use
- alerts when energy use deviates from norms
- EnergyStar benchmarking, by making it easier to voluntarily benchmark and pursue efficiency measures, or to easily comply with benchmarking and disclosure laws such as Philadelphia's.

Our members are developing innovative information technologies to achieve significant energy savings in both the residential and commercial sectors at scale. They include Alarm.com, AzTech Associates, Bidgely, BlueLine Innovations, BrightPower, BuildingIQ, Chai Energy, the Cleanweb Initiative, EcoFactor, EnerNOC, EnergyHub, Genability, Home Energy Analytics, iControl Networks, Investor Confidence Project, Lucid, Nest, Open EE Meter, People Power, Plotwatt, Rainforest Automation, Retroficiency, Solar City, Stem, Switchorshot.com, ThinkEco, Verdafero, Utilisave, WattTime and WattzOn. For more information, see www.missiondata.org

in an electronic form, based on widely adopted national standards, and the ability to share it with third parties of their choice. A vibrant third party market will maximize opportunities for innovation and consumer choice, in the same way that smart phones have transformed communications.

In connection with your Tentative Order dated April 23rd, 2015 (“Tentative Order”) and the broader customer data access issues addressed by Act 129, our organizations are pleased to offer the Commission technical and policy expertise on issues of meter data exchanges, technical standards, privacy and other issues we have gained in connection with proceedings in more than a dozen states.

The Tentative Order directed that comments be directed to the Commission within 30 days of the date of the approval of the Tentative Order, April 23, 2015. Mission:data and EDF submit these comments in accordance with 52 Pa. Code § 1.12.

1. BACKGROUND

The collective advocacy by the technology and environmental communities on customer data access -- represented by the alliance of Mission:data and EDF -- is indicative of the huge potential energy and monetary savings for consumers and the enormous potential of improved building energy efficiency to contribute to protection of human health and the environment. Buildings account for approximately 40% of America’s total energy use. Cost-effective efficiency measures can cut that use by 20%. Data-driven technologies represent a significant and increasingly cost-effective enabler of these reductions.

Third party access to smart meter usage data, with customer consent, is a central component of Pennsylvania’s smart grid policies. Act 129 requires electric distribution companies (EDCs) to make meter data available to customers and their designated third parties.² To comply with the legislation, the Commission ruled that EDCs must provide access to meter data to customers and authorized third party representatives, and that such access must be “electronic” and “standardized.”³

We fully agree with and support the Commission’s directive in the Tentative Order to provide data not just to EDCs, licensed electric generation suppliers (EGSs), and curtailment service providers (CSPs) but also “other entities who have obtained customer consent regarding the release of the data.”⁴ We applaud the Commission for its recognition of the significant value for customers made possible by investments in automated metering infrastructure (AMI).

Data access is central to customers realizing value from utility AMI investments. Some customers might view their own meter data directly, such as on a

² 66 Pa. C.S. § 2807(f)(3).

³ Final Order, “Smart meter procurement and installation” (December 5th, 2012). Docket No. M-2009-2092655, Pennsylvania Public Utilities Commission, p. 3.

⁴ Tentative Order, p. 9

website, in order to better understand monthly bills or consumption patterns. Viewing one's own meter data, whether a homeowner or a business, is very helpful, but we recognize that the average consumer is not likely to take the time necessary to become a sophisticated energy analyst simply in order to identify cost-effective efficiency opportunities.

For this reason, the majority of customers are likely to interact not with their meter data on the utility's website -- or even the retail provider's website -- but rather through technologies such as smart thermostats, mobile applications, enterprise energy intelligence software, and various web technologies that digest and synthesize meter data provided in an electronic format into actionable steps for consumers. Thus, third party access to meter data (with customer consent) is a critical enabler of customer value in Pennsylvania.

We have reviewed the February 17, 2015 proposals of the Electronic Data Exchange Working Group and are supportive of Commission's decision to require system-to-system data within 12 months of the entry of the final order.

The EDEWG report, however, left unaddressed the question of data access for other, non-EGS third parties, noting that "The capability for other 3rd parties (entities not licensed by the PaPUC as EGSs) to access this information is outside the scope of the WPWG effort" and that "Such entities are NOT eligible for access to the web portal and must obtain customer data access via other means."⁵

Mission:data members obtain consent from the customer to use that customer's energy data in connection with the data-driven energy management tools, software and services that we provide. As a practical matter, the provision of the most effective and powerful energy saving products require ongoing access to such energy data in an electronic format, once authorized by the consumer.

While agnostic as to specific business models and technologies, Mission:data and EDF advocate for the use of the Green Button "Connect My Data" standard as a critical enabler for the industry as a whole because this provides a convenient, well-understood national standard that allows customers convenient access to their data.⁶ A national standard avoids a balkanized market that otherwise impedes innovation and competitive solutions, and adherence to standards offers great promise for companies with cost-effective and advanced technologies and software to rapidly scale, focusing their efforts on addressing individual customer needs rather than having to wade through individualized regulatory or other requirements that vary significantly across different regions.

⁵ Electronic Data Exchange Working Group, Solution Framework, February 17, 2015, p. 5.

⁶ Green Button "Connect My Data" must be distinguished from Green Button "Download My Data." Download My Data requires the customer to manually download usage data and send it to a third party. Connect My Data is an automated, ongoing process.

The EDEWG report noted that some Pennsylvania EDCs have publicly supported adoption of the national Green Button standard, noting that it could be “valuable over time” as it matures and is adopted by additional markets. We applaud the support of those EDCs. However, the proposal goes on to suggest that “as of the time of this writing” the use of Green Button ConnectMy Data “is limited to specific EDCs in California” and is in the “beta” stage of use. Made in January, these statements understate the current market and the substantial promise of the Green Button Connect My Data standard.

For the record, Mission:data and EDF wish to bring to the Commission’s (and other parties’) attention that Green Button Connect My Data has been implemented by Southern California Edison, San Diego Gas and Electric, and Pacific Gas and Electric across their entire service territories, as well as by PEPCO in Washington, DC for commercial and industrial users. In Illinois, in filings in connection with the Illinois Commerce Commission’s “Open Data Access Framework” proceeding, both Commonwealth Edison and Ameren Illinois have publicly committed, with our support, to implement Green Button Connect My Data by the end of 2015. When added to Texas’ adoption of interval data functionality very similar to Green Button Connect, states with deployments of approximately 40% of the approximately 60 million smart meters deployed or scheduled for deployment across the United States -- will have implemented Green Button Connect My Data functionality by the end of this year. In each of these cases, the state commissions have provided a critical leadership role to ensure that this functionality is made available for the benefit of ratepayers.

In addition to the states, the federal government has adopted the Green Button standard. In a Presidential Memorandum dated December 5, 2013 to all federal agencies, including the General Services Administration (GSA), President Obama required the implementation of Green Button for exchanging energy use data of federal facilities. The Memorandum requires agencies to coordinate with local utilities to use Green Button and, in regions where Green Button is not available, the GSA and Federal Energy Management Program (FEMP) are required to conduct business internally using the Green Button format.

The stakes for consumers are huge. By some estimates up to 40% of the benefits of smart meters lie in demand-side customer savings enabled by data access. As the Commission is aware, studies by the American Council for an Energy Efficient Economy have documented that providing customer’s access to their electricity data in electronic format, combined with technology tools to interpret and manage that information and use, can yield household savings of 12% or more.⁷

⁷ Karen Ehrhardt-Martinez, Kat Donnelly, et.al. *Advanced Metering Initiatives and Residential Feedback Programs: A Meta-Review for Household Electricity-Saving Opportunities*, American Council for an Energy Efficient Economy (aceee.org), Report Number E105, June 2010.

More recently, one of our members working with the City of Mountain View, California, used interval data to educate more than 1,500 consumers about their energy use, driving household electricity savings of 5.5% (and 3.8% reductions in electricity bills) and natural gas savings of 16.4%. Savings in the top quartile surpassed 14% for electricity and 32% for natural gas. All of this was achieved at a small fraction of the cost per participant of typical energy savings programs, suggesting that data-driven technologies can be a powerful addition to the suite of strategies states can use to reduce energy use and improve efficiency.⁸

At the commercial level, significant savings are also possible. Lucid Design Group, for example, has used interval data to achieve savings of 27%. Plotwatt saves restaurants thousands of dollars per year per location in energy costs through use of its disaggregation technologies that identify use by appliance and enable tailored strategies based on individual customer use patterns. In states without advanced metering and data access, these kinds of savings require the customer to install separate metering systems, often at a cost of thousands of dollars.

The working group recommended reintroducing Green Button into “future discussions at a later date based on its maturity and adoption rate.” Mission:data and EDF believe that adoption of Green Button is progressing well and that Pennsylvania -- given the size of its market and the strength of the directives in Act 129 -- has an opportunity to be a leader in fostering the development and use of the most powerful energy saving technologies for the benefits of consumers.

The full potential of data access cannot be realized unless all third parties are given the opportunity to work with customers to provide data-driven energy management solutions. Templates developed in other states provide methodologies and requirements for accomplishing such access in a way that fully protects the privacy and security of customers.

The attached Open Access Data Framework provides background to the Commission on efforts in Illinois to set minimum conditions by which participating utilities are to provide access to usage data for retail electricity customers and authorized third-parties. The document – negotiated with diverse stakeholders including utilities, consumer advocates, and third-party providers – describes standards for customer authorization, types of data utilities should collect and share, data format, methods of delivery, timeliness, and data security.

Mission:data and EDF therefore recommend that the “future discussions” referenced in the report should occur in the near future and that the Commission, in addition to approving the Tentative Order, should undertake to address in a new proceeding the needs of customers working with non-EGS third parties beyond those described in the Tentative Order. This is precisely the path that Illinois has

⁸ City of Mountain View, Acterra, Home Energy Analytics, “Energy Upgrade Mountain View Final Report,” January 2015

taken. The ICC recently completed Proceeding 14-0701 to address the data access needs of retail energy providers. The ICC is currently considering comments in connection with Proceeding 15-0073 to address the need for energy services and data access for customers using non-retail provider third parties.

3. CONCLUSION

Mission:data and EDF appreciate the work of the Commission to position Pennsylvania as a leader in information-empowered consumers. We appreciate the opportunity to comment and would be pleased to work with the Commission and all stakeholders to address the points we have raised.

Respectfully submitted,



May 26, 2015

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