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May 2, 2016

Rosemary Chiavetta, Secretary  
Pennsylvania Public Utility Commission  
Commonwealth Keystone Building  
400 North Street, 2nd Floor  
Harrisburg, PA 17120

**VIA ELECTRONIC FILING**

**Re: 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; Docket No. M-2009-2092655**


Dear Secretary Chiavetta:

Attached please find for filing with the Pennsylvania Public Utility Commission ("PUC" or "Commission") the Comments of Earth Networks Inc. and WeatherBug Home to the Electronic Data Exchange Working Group's ("EDEWG") Recommended Data Exchange Solutions submitted in the above-referenced docket.

If you have any questions or need additional information, please contact us. Thank you.

Very truly yours,

McNEES WALLACE & NURICK LLC

By   
Susan E. Bruce

Counsel to Earth Networks Inc. and WeatherBug Home

SEB:mas

Enclosures

c: Certificate of Service  
Darren Gill, PaPUC Bureau of Technical Utility Services (via electronic filing)  
Jeff McCracken, PaPUC Bureau of Technical Utility Services (via electronic filing)  
Lee Yalcin, PaPUC Bureau of Technical Utility Services (via electronic filing)  
Christine Hughey, Constellation (via electronic filing)  
Sue Sheetz, PPL Electric Utilities Corporation (via electronic filing)  
Brandon Siegel, Intelometry (via electronic filing)

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## CERTIFICATE OF SERVICE

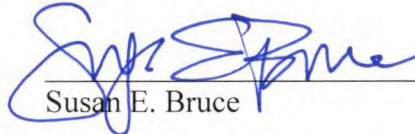
I hereby certify that I am this day serving a true copy of the foregoing document upon the participants listed below in accordance with the requirements of 52 Pa. Code Section 1.54 (relating to service by a participant).

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Susan E. Bruce

Counsel to Earth Networks Inc. and  
WeatherBug Home

Dated this 2<sup>nd</sup> day of May, 2016, at Harrisburg, Pennsylvania



**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

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

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**COMMENTS OF EARTH NETWORKS INC. AND WEATHERBUG HOME  
TO EDEWG'S RECOMMENDED DATA EXCHANGE SOLUTIONS**

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**I. INTRODUCTION**

On April 7, 2016, the Electronic Data Exchange Working Group ("EDEWG") filed with the Pennsylvania Public Utility Commission ("PUC" or "Commission") a recommended Solution Framework for Historical Interval Usage and Billing Quality Interval Use per the Final Order of the Commission entered on September 3, 2016. *See* Docket No. M-2009-2092655 (Final Order entered Sep. 3, 2015).<sup>1</sup> The Commission made the EDEWG's recommended data exchange solutions publicly available on April 12, 2016. Public comments to the recommended solutions are due twenty days thereafter on May 2, 2016.

Herein, Earth Networks Inc. and WeatherBug Home (collectively, "WeatherBug") file comments, for consideration by the Commission, in response to the EDEWG's recommended data exchange solutions.

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<sup>1</sup> By Secretarial Letter issued on March 4, 2016, the Commission extended the deadline to April 7, 2016 for the EDEWG to submit its recommended data exchange solutions. *See* Docket No. M-2009-2092655.

## II. COMMENTS

WeatherBug has thoroughly reviewed the EDEWG's recommended data exchange solutions and appreciates the work of the EDEWG, as well as the EDEWG's leadership in facilitating solutions to develop and enhance the Commonwealth's retail energy markets for the benefit of Pennsylvania consumers. WeatherBug appreciates the opportunity to submit comments on EDEWG's recommended data exchange solutions. As more fully discussed below, reasonable access to customer electric meter usage data is critical to support WeatherBug's energy information and energy management service offerings to Pennsylvania customers, and to realize the value created in concert with them in energy markets.

### A. **Introduction and Background on WeatherBug**

Earth Networks is a private weather data and information provider serving a variety of markets nationally and internationally. Earth Networks' retail branded computer and smart device app is called "WeatherBug." Based upon the uniquely granular level of weather data WeatherBug accesses every day from over 8,000 weather stations in the United States alone, the company has created an effective and efficient energy management platform. Working with equipment manufacturers (*e.g.*, Honeywell, Nest, Samsung, Emerson, Ecobee) and energy experts, WeatherBug has developed the capacity, using data from communicating thermostats and energy consumption information from advanced meter data networks, to automatically build an individual thermodynamic model of every customer's premises. This modeling allows the company to provide the following kinds of services to its customers today:

**Virtual Energy Audit:** WeatherBug's analytical capability allows it to help consumers understand how they and their homes are using energy, and predict upcoming energy bills. This service identifies actionable, individualized opportunities to improve efficiency or change behavior to save energy and money.

**Optimization Service:** Because WeatherBug has integrated its operations with the



software driving various connected smart devices, it can control those devices remotely, from the cloud, in precise response to the real-time impact of weather. WeatherBug does this in a manner appropriate to each individual customer and their building, helping provide greater comfort, more reliably and more efficiently.

**Price Responsiveness:** Where utilities provide time varying rates, WeatherBug's programming can automatically optimize consumer savings rather than energy savings.

**Demand Response:** Having the capacity to intelligently modify the demand of WeatherBug's aggregated base of customers allows it, with customers' authorization, to respond to high system prices or local or system-wide energy emergencies, helping to hold down the cost of power to all consumers, or avoid troubling outages.

In addition, WeatherBug Home is already working to expand its platform to integrate with other appliances (*e.g.*, water heaters, washers, and dryers), on-site renewables and storage, and vehicle charging. WeatherBug is also developing a social media, or community, element of the service for customers or power providers to share and communicate with each other. The ability to obtain interval meter data from residential and small business customers in an automated fashion with minimal transaction costs is critical to WeatherBug's ability to scale-up its services and serve the customers of Pennsylvania with affordable and innovative, cutting-edge products.

WeatherBug is concerned that EDEWG's recommended data exchange solutions do not fully and sufficiently account for the needs of WeatherBug Home or similar information-driven energy services companies. The capacity being developed by the electric distribution companies ("EDCs"), as described in EDEWG's April 7 filing, appears to serve only companies with an Electric Generation Supplier ("EGS") license or agents of licensed EGSs. Earth Networks' specific concern is that the proposed data exchange solutions do not anticipate or clearly allow for automated access to data by WeatherBug Home, or that a narrow interpretation of guiding and pertinent statutes and Commission regulations may limit the providers that are eligible for EGS licensing.

**B. The Public Utility Code and Commission Regulations Contemplate Access to Meter Data for Service Providers Like WeatherBug.**

By statute, Pennsylvania requires EDCs to implement smart meters that can conduct bilateral data communications, record usage data on an hourly basis, provide customers with direct access to and use of price and consumption information, and enable time-of-use rates and real-time price programs. 66 Pa. C.S. § 2807(g). EDCs "**shall, with customer consent, make available direct meter access and electronic access to customer meter data to third parties, including electric generation suppliers and providers of conservation and load management services.**" 66 Pa. C.S. § 2807(f)(3) (emphasis added). Importantly, Act 129 did not limit access to meter data just to EGSs but also allowed such access for providers of conservation and load management services, a term that encompasses WeatherBug. Under this language, EGSs are only a subset of providers eligible to meter data with customer consent.

The Commission has further determined that an EDC's smart meter technology must support additional capabilities: 1) ability to remotely disconnect and reconnect; 2) ability to provide 15-minute or shorter interval data to customers, electric generation suppliers, third parties, and the regional transmission organization ("RTO") on a daily basis consistent with the data availability, transfer, and security standards adopted by the RTO; 3) on-board meter storage of meter data and compliance with certain national data transfer standards; and 4) the ability to upgrade these capabilities as it becomes technologically and economically feasible. *Petition of PPL Electric Utilities Corp. for Approval of Its Smart Meter Technology Procurement and Installation Plan*, Docket No. M-2014-2430781, at p. 10 (Order entered Sep. 3, 2015) (citing M-2009-2123945, at p. 30 (Order entered Aug. 2, 2012)). The Commission stresses that EDCs need not be able to collect 15-minute or shorter interval data for all customers at all times, but they must be able to provide 15-minute or shorter interval data to third parties with customer



consent. *Smart Meter Procurement and Installation*, Docket No. M-2009-2092655, at p. 4 (Implementation Order entered June 24, 2009). The Commission has emphasized that third parties, with customer consent, should not be precluded from "obtaining raw meter data through meter pulse leads, a secure web portal or other secure means reasonably available to the customer or designated third-party." *Id.* at p. 5.

Presently, access to customer usage data is easier if an entity is a licensed EGS. The PUC has created one EGS license envisioning two types of entities: 1) suppliers and aggregators that take title to electricity and 2) brokers, marketers, and aggregators who do not take title to electricity and thus have been allowed lower bonding/financial security requirements. However, the statutory definition of an EGS is very broad, encompassing "brokers and marketers, aggregators **or any other entities**, that sell to end-use customers electricity **or related services** utilizing the jurisdictional transmission or distribution facilities of an electric distribution company or that purchases, brokers, **arranges or markets** electricity **or related services** for sale to end-use customers utilizing the jurisdictional transmission and distribution facilities of an electric distribution company." *See* 66 Pa. C.S. § 2803 (emphasis added).

Through the recognition of "other entities" and "related services," the statutory definition of EGS contemplates a variety of energy service providers in addition to just competitive commodity providers. The Commission supports access to data for the actual customer and for customer-authorized third parties, which aligns with the PUC's mission to educate consumers, further economic development, and foster new technologies and competitive markets.

Despite this apparent broad inclusion of third-party service providers, 'WeatherBug is concerned the meaning of "related services" may be narrowly interpreted as including only services provided to a given customer in conjunction with commodity service to this same

customer.<sup>2</sup> This is apparent in the language of the EGS license application, and the definitions of broker, marketer, and aggregator, which would appear not to contemplate licensing by a third party providing only data-driven information or efficiency services or even demand response aggregation. The existing EGS license application is a Load Serving Entity ("LSE")-centric perspective that does not anticipate the growth of independent (merchant) electric "related services," like those being offered by WeatherBug. The Commission must determine in the appropriate forum the qualifications and limitations on the eligibility for EGS licensing for such third-party service providers.

Ultimately, WeatherBug is concerned that the EDEWG's proposed solutions would limit data access by WeatherBug. According to the EDEWG proposal, only a licensed EGS, or its agent, will be granted access to customer meter data. *See* EDEWG Report, Docket No. M-2009-2092655, at 6-7 (regarding System-to-System Historical Interval Usage), 4-6 (System-to-System Rolling 10-day), and 5-6 (regarding Single User-Multiple Request) (filed Apr. 7, 2016). WeatherBug is willing to apply for an EGS license and be subject to EGS regulations. It would be inappropriate, however, for a service provider like WeatherBug to be required to meet the more substantial collateral requirements of a commodity provider. WeatherBug does not clearly fit the definition of a broker, marketer, or aggregator. WeatherBug also does not appear to be an "agent" of an EGS. WeatherBug may, but does not necessarily, provide services in conjunction with the commodity supplier services that an EGS delivers to its customers.

WeatherBug is another class of participant, not clearly anticipated by the Commission's license application or existing regulatory framework: a company offering services unaffiliated with a load-serving entity or the incumbent utility. WeatherBug itself provides no electricity

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<sup>2</sup> This would appear to mirror the parallel registration of Conservation Service Providers that participate in PA 129 programs with the LSE.



supply; rather, it provides a related service: energy information services and tools to help consumers understand and manage their energy use irrespective of who provides the customer's electric supply.

### **C. The EDEWG's Recommended Solutions**

The EDEWG offers three solutions: 1) The Single User-Multiple Request, 2) the Rolling 10-day Solution, and 3) the Historical Interval Usage Solution. WeatherBug's understanding of these proposals derives from participation in the Working Group since last fall, as well as from the final EDEWG report and recommended solutions. The Single User-Multiple Request format is insufficient for the kinds of efficient automated, ongoing data exchanges that companies like WeatherBug will require. The Rolling 10-day Solution is the most attractive system approach, but WeatherBug's understanding, based on its participation in the EDEWG, is that the coding of the system is based upon a single EGS for each meter number and so this solution will not accept requests for data on a given customer from providers of electric supply "related services" unaffiliated with the customer's EGS. (Apparently, an agent of the EGS would have access to the data by using the EGS's access to this solution.) It is WeatherBug's understanding that the Historical Interval Usage Solution was designed for other licensed service providers (i.e., brokers, marketers, and aggregators). This solution is capable of System-to-System communication of meter data and related account information on significant numbers of customers through API integration by the service provider. It would not push data like the Rolling 10-day Solution offered to commodity providers, and requires that the data be requested each time it is needed, whether for updating customer analysis or for market settlement. However, at this time, WeatherBug believes the Historical Interval Usage Solution approach is sufficient to meet WeatherBug's needs.

While not a requirement of the Commission, the EDEWG Report recommends that access to the system-to-system solutions be limited to EGS-licensed market participants. It is WeatherBug's understanding from participation in the EDEWG deliberations that this is based on the data-processing capacity of the systems being developed by the EDCs, and the EDCs' uncertainty as to what capacity might be required if access were broadened. This also implicitly adopts a more narrow view of what constitutes an EGS, considering it to be only commodity suppliers (*i.e.*, EGSs or LSEs), their agents, or brokers, marketers or aggregators of electricity.

The goal of Earth Networks and WeatherBug Home is automated, low-cost access to the meter data of WeatherBug's customers with proper authorization, independent of the customer's EGS. WeatherBug is willing to become a licensed EGS if the Commission will direct the current license be expanded for companies such as WeatherBug or create a third category of EGS for an electricity-related service provider. In the alternative, however, and based upon the present interpretation of eligibility, the current recommendation of the EDEWG would appear to act in concert with the license language, to limit access to meter data for WeatherBug and its customers. WeatherBug believes it represents a new class of independent, merchant service providers who are waiting to emerge in the Pennsylvania market to provide innovative, information-driven services to consumers, irrespective of their load serving entity.

**D. Commission Direction Is Required To Address the Long-Term Meter Data Access Needs for Service Providers Like WeatherBug.**

WeatherBug respectfully requests the Commission to address the concerns that WeatherBug has raised regarding third-party access to data and the EDEWG's recommended solutions. WeatherBug requests that the Commission direct the EDC members of EDEWG to take the necessary steps to provide sufficient processing capacity to ensure, consistent with Act 129's requirements, equal access to customer information by unaffiliated third-party electric



energy-related services providers who have obtained customer authorization, whether or not that third party is an EGS or an EGS's agent. The Commission should view WeatherBug's interest in this matter as a positive sign that the investments made in Pennsylvania have successfully attracted the innovation and services envisioned when the AMI systems were first approved.

WeatherBug is in the first wave of similarly innovative energy-related and information-driven customer services that will bring tangible benefits to Pennsylvania customers. At the same time, WeatherBug notes that the growth of these services and their penetration into the market will take time. The data needs of WeatherBug are unlikely to be a burden on the EDCs' planned systems in the immediate future so the volume of data required by WeatherBug should not be a factor under consideration with respect to its access to the data it needs today. The EDCs have time to build more robust systems to handle the coming demand for data processing. Nevertheless, developing such capacity does also take time, so WeatherBug requests that the Commission direct the EDEWG to determine, and the EDC members of the EDEWG to undertake, such upgrades as needed so that access to data is provided as contemplated by the Public Utility Code and Commission orders and regulations. WeatherBug asks that data access not be limited to only licensed EGSs and their agents. This limitation, if permitted and allowed to continue, is a competitive market concern that disadvantages independent third-party energy service providers, such as WeatherBug, who are unaffiliated with load-serving entities, depriving Pennsylvania consumers of these information and data-driven services.

One alternative to such direction to the EDEWG would be to expand the definition of EGS for licensing purposes to include "related services" providers such as WeatherBug. Given the importance of maintaining the privacy of customer data, WeatherBug understands if the Commission desires to limit access to meter data based on the Commission's limited regulatory

authority over third parties. WeatherBug understands the Commission's interest in ensuring the appropriate use of personally identifiable information by WeatherBug and similar service providers and to be able to verify that information service providers have obtained the requisite customer agreement to access the data. The Commission could clarify that a broader scope of services and service providers are eligible for obtaining an EGS license, which would bring such practices under the Commission's oversight.

The Commission could accomplish the same for independent third parties with a separate category of license or by creation of a simplified registration agreement process. Given the Commission authority over the EDCs, the Commission could restrict the parties to whom EDCs provide data to companies registered as third-party service providers, with the completion of registration based on the agreement to, and observation of, customer protection guidelines by the registered provider. A bad actor violating its registration agreement with the Commission could lose its registration, effectively banning it from gaining access to meter data in Pennsylvania in the same manner as might be done with an EGS.

WeatherBug commends the hard work that has gone into the final proposed plan that the EDEWG filed with the Commission on April 7, 2016. WeatherBug further appreciates the opportunity to comment on this filing. WeatherBug believes that the systems proposed are in some ways models for the other states, and have the potential to help enable the rapid growth of innovative, information-driven customer service offerings to Pennsylvania consumers, to help reduce energy use and emissions, increase efficiency, facilitate integration of distributed resources, and increase system reliability and resilience.

WeatherBug applauds the Commission's vision and asks that it direct EDEWG and Pennsylvania EDCs, in the public interest, to plan for and develop sufficiently robust data



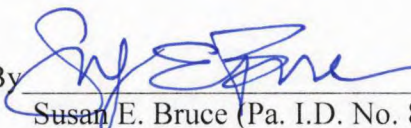
processing capacity to support this expanding sector of the new energy industry. In concert with this request, WeatherBug requests that the Commission also clearly enunciate and delineate one or more non-discriminatory pathways for independent third parties providing electricity-related data-driven services, to access this data through the system-to-system solutions that are the result of the planning of the EDEWG. WeatherBug is willing to apply for and respect the obligations of an EGS license, or otherwise observe the appropriate protocols regarding access to and use of protected customer information in any manner the Commission deems appropriate.

### **III. CONCLUSION**

**WHEREFORE**, Earth Networks Inc. and WeatherBug Home respectfully request that the Pennsylvania Public Utility Commission consider these Comments in disposing of the recommended solutions of the Electric Data Exchange Working Group.

Respectfully submitted,

McNEES WALLACE & NURICK LLC

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