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VIA FEDERAL EXPRESS

August 22, 1011

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

Re: Smart Meter Procurement and Installation
Tentative Order Entered July 8, 2011
Docket No. M-2009-2092655

Dear Ms. Chiavetta:

Enclosed for filing are an original and three (3) copies of PPL Electric Utilities Corporation's ("PPL Electric") comments to the Tentative Order entered on July 8, 2011 in the above-captioned proceeding. Copies of the enclosed comments have been submitted via electronic mail to Annunciata E. Marino and Kriss E. Brown, Esquire.

Pursuant to 52 Pa. Code § 1.11, the enclosed document is to be deemed filed on August 22, 2011, which is the date it was deposited with an overnight express delivery service as shown on the delivery receipt attached to the mailing envelope.

In addition, please date and time-stamp the enclosed extra copy of this letter and return it to me in the envelope provided.

If you have any questions regarding the enclosed comments, please call.

Very truly yours,

Paul E. Russell

Enclosures

cc: Annunciata E. Marino, Analyst
Kriss E. Brown, Assistant Counsel

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Smart Meter Procurement and Installation; Tentative Order Entered July 8, 2011	:	Docket No. M-2009-2092655

Comments of PPL Electric Utilities Corporation

TO THE PENNSYLVANIA PUBLIC UTILITY COMMISSION:

I. Introduction

At its Public Meeting of June 30, 2011, the Public Utility Commission ("Commission") adopted a Tentative Order (Tentative Order entered July 8, 2011) regarding the development of data exchange standards for smart meters. Ordering Paragraph No. 2 states that interested parties shall have thirty (30) days from the date the Tentative Order is published in the *Pennsylvania Bulletin* to file written comments. The Tentative Order was published in the *Pennsylvania Bulletin* on July 23, 2011; therefore, the final date for submitting written comments is August 22, 2011.

PPL Electric Utilities ("PPL Electric" or the "Company") is an Electric Distribution Company ("EDC") as that term is defined in the Electricity Generation Customer Choice and Competition Act (the "Act"). 66 Pa. C.S. § 2801 et seq.

PPL Electric provides electric distribution and Provider of Last Resort ("POLR") service to 1.4 million customers in all or parts of 29 counties in central eastern Pennsylvania. On August 14, 2009, PPL Electric filed, at Docket No. M-2009-2123945, a "Smart Meter Technology Procurement and Installation Plan" ("Smart Meter Plan") pursuant to the requirements of Section 2807(f) of Act 129 of 2008 and the Commission's Smart Meter Procurement and Installation Implementation Order ("Implementation Order") entered on June 24, 2009 at Docket No. M-2009-2092655. The Company has been an active participant in all activities related to the restructuring of the electric utility industry and the deployment of smart meter infrastructure, including the development of Electronic Data Interchange ("EDI") standards as a member of the Commission's Electronic Data Exchange Working Group ("EDEWG"). PPL Electric appreciates the opportunity to submit comments in this docket.

II. Background

The Commission's Implementation Order "directs that each EDC smart meter plan must address standards and formats for electronic data communications with customers and third parties." Implementation Order at 24. The Implementation Order acknowledges that there are a variety of methods of achieving electronic data communications when it states, "There are many approaches for requesting and providing meter-level data today, e.g., electronic bulletin board, pass-key protected websites, compact disk, etc. In addition, EDI (ASC X-12 standards) capability has been built by the electricity industry in the

Commonwealth to facilitate a reliable, secure approach for communicating verified customer data for electric choice." Implementation Order at 24. While acknowledging that EDC smart meter plans may propose electronic data communications other than EDI, the Implementation Order does establish certain requirements associated with EDI. These are:

- Third parties desiring access to verified EDC meter data are required to comply with "Commission orders relating to electronic data communications and the approved Internet protocol at Docket No. M-00960890F0015" and "must be EDI tested and certified with the EDC." Implementation Order at 15.
- "EDCs are required to implement an EDI transaction relating to enrollment of customers who elect service on a real-time-price or time-of-use rate program." Implementation Order at 25.
- EDCs are required to implement "a new historical usage transaction in order to provide customers and their designated agents with 12 months of interval usage data pursuant to Commission orders at Docket No. M-00960890F0015." Implementation Order at 25. The Implementation Order further states that this historical usage transaction must facilitate third-party exchange of historical interval usage data recorded at the meter level.
- "An EDI transaction will...need to be developed and implemented for the exchange of monthly, billing quality, interval

usage data recorded at the meter level versus the current practice of providing usage data at the account level." Implementation Order at 25.

The Implementation Order further states that addressing the developments necessary for the implementation of smart meter technology plans requires EDC and third-party participation in the EDEWG. The Implementation Order directs EDCs "to propose EDI capabilities for this purpose through the EDEWG for Commission review no later than January 1, 2010" and to "look to any applicable national standards, such as those developed by the North American Energy Standards Board." Implementation Order at 25.

In response to the Implementation Order, a sub-team of EDEWG consisting of the EDC members developed a Preliminary Proposal for the Development of Smart Meter Data Exchange Standards ("Preliminary Proposal") and EDEWG submitted the Preliminary Proposal to the Commission on December 7, 2009. The Preliminary Proposal addressed the elements of the Implementation Order under two distinct categories – those related to current business processes and those related to new business processes that will develop as a result of implementing smart meter technology. Preliminary Proposal at 1. This Tentative Order reflects the Commission's review of the Preliminary Proposal and provides additional direction and clarification about the role of EDEWG and EDCs in the development of statewide smart meter data exchange standards and formats. The Company's comments, below, follow the structure and headings used in the Tentative Order.

III. Comments on Data Exchange Standards for Current Business Processes

1. Real-Time and Time-of-Use Prices

The Tentative Order acknowledges the conclusion of the Preliminary Proposal that "use of the existing 814 Enrollment Request transaction is capable of supporting enrollment of customers into (real-time and time-of-use) pricing programs offered by an EGS." Tentative Order at 4. The Tentative Order goes on to describe that, under Dual Billing and Bill Ready Consolidated Billing protocols, the EGS is responsible for calculating its own charges. Therefore, the EDC does not need to know the details of the rate program in which the EGS has enrolled the customer. Accordingly, the Tentative Order states that these current practices of providing Dual Billing and Bill Ready Consolidated Billing should be approved. However, the Tentative Order further proposes "that covered EDCs be required to submit the appropriate EDI change control requests for the appropriate transactions to EDEWG...and effect implementation of these changes on an immediate, high priority basis." Tentative Order at 5. PPL Electric does not believe that any change is required to any EDI transaction, including but not limited to the 814 Enrollment Request, to support real-time or time-of-use pricing programs offered by an EGS under Dual Billing and Bill Ready Consolidated Billing protocols. The Company believes that the Tentative Order's proposal that

EDCs submit a change control request to EDEWG is unnecessary and should be deleted.

The Tentative Order describes that, under Rate Ready protocols, the EGS would enroll customers using the rate code it had previously established with the EDC for the particular real-time or time-of-use pricing programs. PPL Electric currently offers EGSs the opportunity to utilize Rate Ready billing for usage-based rates ($/kwh), demand-based rates ($/kw), flat rates ($/month), and rates that are a percentage of the Provider of Last Resort ("POLR") rate (%). These rates are straight-forward and simple in that the Company provides a single billing quantity to the billing calculation (i.e., monthly kwh, monthly kw, the fact that the customer was connected, or the POLR rate) which is multiplied by the EGS's previously established billing rate. The Company does not, currently, offer Rate Ready billing protocols for real-time or time-of-use pricing programs. Real-time and time-of-use pricing programs are much more complex and require, in the case of real-time programs, the establishment of a price for each hour, and in the case of time-of-use pricing, the grouping of hours into on-peak, off-peak, and, possibly, other periods with a separate price for each period. Significant changes would be required to the Company's customer information and billing systems to enable the Company to offer Rate Ready billing for real-time and time-of-use pricing programs. Nevertheless, the Company concurs with the Tentative Order's conclusion that, if the Company was to offer, or in the future does offer, Rate Ready billing for real-time and time-of-use pricing programs, no changes are required to any EDI transactions.

2. Historical Interval Usage

The Tentative Order acknowledges the Preliminary Proposal's conclusion that the existing 867 Historical Interval Usage (HIU) transaction is designed to meet the requirement of the Implementation Order to provide customers and their agents with 12 months of interval usage data at the meter level. The Preliminary Proposal notes that the transaction is currently optional, is only used by PPL Electric, and PPL Electric's use of the transaction intentionally limits data to the account level. This was done, as stated by the Preliminary Proposal, because of problems encountered in other jurisdictions with the large volume of data involved. Accordingly, the Preliminary Proposal recommends that the EDEWG explore the use of alternative methods of providing meter-level HIU data. The Tentative Order concurs and proposes that the EDEWG explore possible options and identify an alternate solution that can be implemented within 180 days of the entry of a Final Order in this proceeding.

PPL Electric concurs with the Tentative Order's conclusion that an alternative means of transmitting large volumes of data may be appropriate, however, the Company believes that it is inappropriate to require EDCs to install unknown and potentially very complex customer information and billing system modifications within a 180 day window until such time as further investigation of the alternatives that may exist is completed. PPL Electric recommends that the Commission establish a specific date by which the EDEWG will complete its investigation and, further, that the investigation shall include, for each alternative

considered, estimates of cost and implementation date. The Company further recommends that, because this work is intended to accommodate smart meter capabilities, that any modifications which are to be undertaken be incorporated into each EDC's smart meter plan so that those modifications can be coordinated with other smart meter projects and that the cost of such modifications, as part of a smart meter plan, can be recovered through the EDC's smart meter cost recovery mechanism.

3. Bill Quality Interval Usage

The Implementation Order required the development and implementation of an EDI transaction for the exchange of monthly, billing quality, interval usage data recorded at the meter level. The Preliminary Proposal states that "(t)he existing 867 Interval Usage transaction is already designed to meet this need." Preliminary Proposal at 5. However, the transaction defines the provision of meter-level data as optional. In its Preliminary Proposal, the EDEWG commits to act to make meter-level detail a requirement with an effective date for each EDC consistent with the expiration of the 30-Month Grace Period under each EDC's smart meter plan. Preliminary Proposal at 5. The Tentative Order concurs with the Preliminary Proposal's finding. However, it proposes to accelerate the completion of system changes to accommodate the requirement to provide meter-level detail to 12 months prior to the expiration of the 30-month grace period incorporated into each EDC's smart meter plan.

The Tentative Order asserts that the completion of system changes must be accelerated so as not to (1) "interfere with the development of advanced metering technologies in the marketplace"; (2) "create a disservice to customers who plan to purchase these technologies in the near future"; and (3) "(create a disservice to) those who currently participate in complex pricing programs." Because advanced metering technologies are being provided by EDCs and not the marketplace, the Company is not aware of any interference with the marketplace or conflict with customers desiring to purchase discretionary metering equipment that would require accelerating the schedule. Furthermore, the Company knows of no current complex pricing programs that employ meter level data that would justify an accelerated schedule. Nevertheless, the Company recommends, as in the case of historical interval usage data, that, because this work is intended to accommodate smart meter capabilities, that any modifications which are to be undertaken be incorporated into each EDC's smart meter plan. In that way, such modifications can be coordinated with other smart meter projects and the cost of such modifications, as part of a smart meter plan, can be recovered through the EDC's smart meter cost recovery mechanism.

IV. Comments on Data Exchange Standards for New Business Processes

As noted in the Tentative Order, the Implementation Order directs EDCs to propose EDI capabilities necessary to support smart meter functionality through the EDEWG for Commission review no later than January 1, 2010. As

noted in the Tentative Order, and also above, a sub-team of the EDEWG consisting of the EDC members was formed and the sub-team developed a Preliminary Proposal for the Development of Smart Meter Data Exchange Standards ("Preliminary Proposal"). The EDEWG submitted the Preliminary Proposal to the Commission on December 7, 2009. The Preliminary Proposal states, "The Sub-Team has concluded that these new business processes are not yet fully defined" and "(i)t is not possible for this Sub-Team to develop data exchange standards for undefined business processes." (Emphasis added; Preliminary Proposal at 6.) Accordingly, the Preliminary Proposal recommended: (1) an extension of the January 1, 2010 deadline to allow work to be done in parallel with the 30-Month Grace Period for smart meter implementation that is part of each EDC's Smart Meter Plan, and (2) an expansion of the sub-team to include representatives of "EGSs, Conservation Service Providers ("CSPs") and interested third parties" ("Expanded Sub-Team"). The Preliminary Proposal recommended the following scope of work for the Expanded Sub-Team:

- The Preliminary Proposal (at 7) establishes the following mission for the Expanded Sub-Team:
    1. Identify the business processes that will be needed to support smart meter technology.
    2. Identify the data exchange requirements that will be needed to support the business processes.
    3. Develop proposed data exchange standards to meet the data exchange requirements.

- Consistent with the Implementation Order, the Preliminary Proposal directs the Expanded Sub-Team to "review and consider applicable national standards, such as those developed by the North American Energy Standards Board." Preliminary Proposal at 7.

The Tentative Order appears to accept the approach described in the Preliminary Proposal when it states:

> "Therefore, we propose that the identification and development of new standards and formats to support Act 129 smart meter statutory requirements, along with the ongoing maintenance of existing standards and processes for this purpose, be developed by EDEWG and presented to the Commission for review. We further propose that the development and ongoing maintenance of these standards and processes be done in a manner that includes all EDEWG participants, specifically, all EDCs, licensed EGSs, registered CSPs, and all other interested parties." (Tentative Order at 8)

PPL Electric believes that this language endorses the recommendations of the Preliminary Proposal, but the Company recommends that the Final Order either incorporate the language from the Preliminary Proposal or incorporate that language by reference so that it is clear what is to be delivered by the Expanded Sub-Team.

V. Comments on Timeline for Development of Smart Meter Data Exchange Standards

Consistent with the requirements of the Implementation Order, the Preliminary Proposal provided a timeline for the development of data exchange

standards related to smart meter functionality. As noted above, the Preliminary Proposal proposed a timeline that allows the development of standards to be done in parallel with the 30-Month Grace Period for smart meter implementation that is part of each EDC's Smart Meter Plan. The Tentative Order proposes to modify that schedule to, instead, require the EDEWG to submit a report to the Commission within 90 days of the entry of a Final Order which will provide the following:

(a) Detailed descriptions of any proposed statewide standardized transactions or protocols for providing required smart meter functionality.

(b) Estimated system and operational costs to provide required smart meter functionality.

(c) The ability for a statewide solution to provide the required smart meter functionality.

(d) Costs for a statewide solution to provide the required smart meter functionality.

The Tentative Order lists three specific smart meter functionalities as the focus of the standardization effort. These are:

(a) To provide customers with <u>direct</u> access to hourly usage and price information (emphasis added);

(b) To provide support for automatic control of a customer's electricity consumption by the customer, the utility or a customer's agent (at the discretion of the customer); and

(c) To provide direct meter access and electronic access to customer meter data by third parties with customer consent (emphasis added).

PPL Electric is concerned that the activities and timeline proposed by the Tentative Order is inconsistent with activities spelled out in the Company's Commission-approved Smart Meter Technology Procurement and Installation Plan ("Smart Meter Plan" Commission Order entered June 24, 2010 at Docket No M-2009-2123945) which was filed in response to and in accordance with the Implementation Order. The Company believes that this inconsistency will, at a minimum, introduce inefficiency and confusion into the deployment of smart meter functionality. Moreover, it could easily result in unnecessary and unjustified functionality being undertaken at significant cost to an EDC's customers. By way of further explanation, the Company notes the following:

1. PPL Electric's Smart Meter Plan consists of a set of specific activities and pilot programs intended to demonstrate the ability of the Company's metering infrastructure to meet the many functionalities described in the Implementation Order. The activities and pilots in PPL Electric's Smart Meter Plan are integrated, sequenced, and scheduled to address numerous functionalities in addition to the three listed in the Tentative Order. Addressing those three functionalities on an expedited basis is likely to delay activities related to other functionalities, introduce inefficiency, and possibly increase the cost of PPL Electric's Smart Meter Plan.

2. As noted above, the Preliminary Proposal states "(i)t is not possible for this Sub-Team to develop data exchange standards for undefined business processes." The Company concurs with this view and, therefore, believes that any efforts to develop standards must be driven by the completion of the pilots and definition of business processes that is gained from those pilots.
3. Further implementation of many of the functionalities that PPL Electric will be piloting is contingent upon a demonstration, through the conduct of a cost and benefit analysis, that the implementation will, in fact, be economically beneficial for customers. The Tentative Order acknowledges that "(t)he Implementation Order required EDCs and third-parties to participate in EDEWG to develop any new system data capabilities <u>that are recognized as necessary and justifiable</u> by EDCs in their respective smart meter plans." Tentative Order at 6; emphasis added. The three functionalities identified in the Tentative Order are of particular concern in this regard because each could involve the broad-scale and expensive deployment of functionality to all customers when an alternative type of deployment using different technology to only those who desire the functionality may be determined to be more cost-effective. Such a result would have a direct impact on the design of business processes and on the design of electronic communications. Accordingly, the Company believes that any efforts to develop standards must be driven by the

completion of the pilot, demonstration of favorable cost/benefit, and a decision to proceed with broader implementation in the context of the approved smart meter plans.

4. None of the stakeholders participating in the review of the Company's Smart Meter Plan or the subsequent stakeholder process has indicated a need to accelerate the schedule of pilots related to the three activities noted in the Tentative Order.

In addition, with regard to the standardization activities listed in the Tentative Order and summarized above, the Company believes that only the first activity, proposing standardized transactions and protocols, is appropriate for the EDEWG to perform. The EDEWG is unable to perform the second task, estimating the system and operational costs of providing the required functionalities, as such estimates will need to reflect the unique features of each EDC's smart meter infrastructure. The Company believes that the third and fourth tasks require a significantly larger investment of resources than is ordinarily expected of members of the EDEWG and may involve expertise that is beyond the membership.

VI. Conclusion

For all of the reasons stated above, PPL Electric believes that the Tentative Order should be modified to give primacy to the activities and schedules set forth in Commission-approved Smart Meter Plans and that activities undertaken in response to a Final Order should become part of the Smart Meter Plan and eligible for cost recovery under that plan. The Tentative Order should also be clarified to provide a more specific definition, as proposed herein, of the task being assigned to the Expanded Sub-Team.

Respectfully submitted,

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(610) 774-4254

Dated: August 22, 2011
at Allentown, Pennsylvania