August 22, 2011

**Via E-Filing and Overnight Mail**

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

Re: **Smart Meter Procurement and Installation**  
**Docket No. M-2009-2092655**

Dear Secretary Chiavetta:

Enclosed for filing are the original and three copies of the Comments of PECO Energy Company to the July 8, 2011 Tentative Order in the above-captioned proceeding.

Copies have been served as indicated on the attached Certificate of Service.

Very truly yours,

Jeanne J. Dworetzky  
Counsel for PECO Energy Company

JJD/adz  
Enc.

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BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

SMART METER PROCUREMENT
AND INSTALLATION

DOCKET NO. M-2009-2092655

COMMENTS OF PECO ENERGY COMPANY
TO THE JULY 8, 2011 TENTATIVE ORDER

I. INTRODUCTION

PECO Energy Company ("PECO" or the "Company") hereby submits these Comments in response to the Pennsylvania Public Utility Commission's ("Commission") July 8, 2011 Tentative Order on smart meter procurement and installation (the "Tentative Order"). PECO appreciates the opportunity to provide comments on the issues raised in the Tentative Order.

Since the passage of Act 129 of 2008 ("Act 129"), PECO has been working to plan, design and implement the smart meter provisions of Act 129.1 PECO filed its Smart Meter Technology Procurement and Installation Plan (the "Plan") on August 14, 2009, and the Plan was approved by the Commission with certain modifications on May 6, 2010.2 The Plan requires PECO to undertake extensive information technology ("IT") work, including the design and implementation of a new two-way Advanced Metering Infrastructure ("AMI") Network that enables smart meter functionality, a Communications Network to support the AMI Network, a Meter Data Management System ("MDMS") that serves as a repository for meter data and a tool for the validation of such data, software known as Middleware that manages the integration of the AMI Host with MDMS and the integration of MDMS with various "back-office" systems,

1 66 Pa.C.S. § 2807(f).
system integration work including the testing of the different phases before deployment and the purchase and installation of the smart meters themselves. In addition, PECO received a $200 million grant through the American Recovery and Reinvestment Act of 2009 from the U.S. Department of Energy, among other things, to significantly accelerate the already aggressive implementation schedule for smart meters. Given the accelerated schedule, PECO believes that it is critically important that the work being done to implement the fundamental smart meter infrastructure not be hindered or delayed in any way.

Since the late 1990s, PECO has been an active participant in the Electronic Data Exchange Working Group ("EDEWG"), the group charged by the Commission with developing technical standards associated with the implementation of retail electric competition in Pennsylvania. More recently, the Commission expanded EDEWG's mission, charging it with developing technical standards relating to the implementation of the smart meter provisions of Act 129 of 2008 ("Act 129"). In response, EDEWG submitted a Preliminary Proposal for Development of Smart Meter Data Exchange Standards to the Commission on December 7, 2009 ("Preliminary Proposal"). After reviewing the Preliminary Proposal, the Commission issued the instant Tentative Order in order to provide additional direction and clarification about the role of EDEWG in the development of statewide smart meter data exchange standards and formats. PECO representatives participated in the development of the Preliminary Proposal and look forward to participating in additional discussions on the complex technical and policy issues arising from Electric Distribution Companies' ("EDC") implementation of Act 129's smart meter provisions.

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1 See Smart Meter Procurement and Installation Implementation Order, Docket No., M-2009-2092655 (June 24, 2009) (the "Implementation Order").
II. COMMENTS

A. Data Exchange Standards for Current Business Processes

PECO supports competitive markets and understands the importance of well-designed EDI transactions in making competitive markets work. To this end, over the last several years, PECO has implemented extensive electronic data interchange ("EDI") upgrades to its own systems, including expanded historic usage data and advanced drop notice to permit EGSs to better manage their customer portfolios. The development or modification of EDI transaction standards, as well as the concomitant EDC Information Technology ("IT") and business system changes required to implement such new or modified standards, can be complex and costly, so PECO believes it is critical to handle them as efficiently and cost-effectively as possible and many of its comments below are focused on accomplishing that goal.

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

As the Commission notes in the Tentative Order, the existing 814 Enrollment Request transaction is capable of supporting enrollment of customers into real-time and time-of-use ("TOU") pricing programs offered by an Electric Generation Supplier ("EGS"). The Tentative Order proposes to require EDCs to submit appropriate change control requests to the existing 814 Enrollment Request transaction to EDEWG within 30 days of the entry of a Final Order in this proceeding and to implement the approved changes on an "immediate, high-priority basis." However, the extent to which the 814 Enrollment Request transaction must be modified, if it must be modified at all, is not entirely clear.

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4 PECO's systems support bill ready consolidated billing, which is one of the billing methods the Tentative Order approves for enrollment and billing of EGS customers who purchase service under real-time and time-of-use pricing options.
Because PECO supports bill-ready billing, PECO currently does not require an EGS to notify it of the rate or pricing option selected by the customer. In order to trigger the provision of bill quality interval data, an EGS will have to notify PECO that such data is required. If the existing 814 Enrollment Request is currently configured with a flag or flags that could easily be used to enable an EGS to request bill quality interval data from an EDC for a new customer or for an existing customer that is changing its billing option, then no modification is needed to the 814 Enrollment Request transaction.

EDEWG therefore must determine the extent to which the existing 814 Enrollment and change transactions must be modified, if at all, before EDCs can submit appropriate change control requests for this functionality. In the event that changes are necessary, PECO believes that more than 30 days would be needed for the two-step process for EDEWG to indentify any such necessary changes and then for EDCs to submit appropriate change control requests. PECO respectfully suggests that the Commission allow 90 days from entry of a Final Order for this process.⁵

2. Historical Interval Usage

PECO currently supports the exchange of Historical Interval Usage ("HIU") data through the 867 transaction at the account level for its interval-billed customers. However, the Implementation Order proposes that EDCs make 12-months of HIU data available to customers and their authorized agents at the meter level. Given the large volume of data involved, EDEWG concluded that the 867 EDI transaction would not be the most economically efficient method for providing HIU data at the meter level. In the Tentative Order, the Commission agreed and asked

⁵ PECO is not aware of any suppliers currently offering real-time or TOU rates, so the Company does not believe the additional time will be problematic for EGSs. Further, suppliers are unlikely to offer such products until smart meters are deployed, so an accelerated time frame is unnecessary.
that EDEWG explore alternative solutions that could be implemented within 180 days of the entry of a Final Order in this proceeding. PECO agrees that EDEWG should explore more efficient solutions for providing customers and their agents with HIU data.\textsuperscript{6} PECO believes that although 180 days may be an appropriate period of time for EDEWG to conduct an analysis of the potential options and recommend a solution. However, the level of effort to implement such a recommended solution is entirely unknown at this point. Therefore, PECO believes additional time beyond the 180 days may be needed for implementation, depending on the nature of the solution. PECO asks that the Commission allow flexibility on the timing as the recommended solution is developed.

In addition and as discussed further below, PECO agrees with the Commission and EDEWG that the use of national standards being developed by recognized standards organizations such as the North American Energy Standards Board ("NAESB") should be leveraged to the extent possible. In particular, EDEWG should explore whether NAESB has published a standard that can provide an appropriate alternate method for the exchange of HIU data at the meter level. If such a standard can be identified, then PECO suggests that the appropriate role for EDEWG would be to develop implementation level guidelines for Pennsylvania based on the national standard rather than to create an entirely new standard solely for Pennsylvania. Further, PECO believes that the participation of additional stakeholders that have an interest in access to HIU data would be helpful in the guideline development process, and PECO encourages the Commission to seek ways to engage such additional stakeholders as such groups are not actively involved within the EDEWG at this point.

\textsuperscript{6} Such alternative solutions might include, without limitation, a hosted third-party website on which the information could be housed and made available to customers and their authorized agents with appropriate privacy and security measures to ensure only authorized parties have access to the data.
3. **Bill Quality Interval Usage**

The Implementation Order proposes to require the development and implementation of an EDI transaction for the exchange of monthly bill-quality interval usage data recorded at the meter level. While the existing 867 Interval Usage ("IU") transaction provides for exchange of monthly interval usage data at the time of customer billing, many EDCs including PECO currently provide such data at the account level rather than the meter level. In the Preliminary Proposal, EDEWG suggested that a modified version of the 867 IU transaction could be used to communicate meter level data, and the Tentative Order agrees.

As an initial matter, PECO notes that the term "bill quality" has not been clearly defined. PECO submits that data that has been sourced from an EDC’s MDMS and that has completed the VEE process (has been verified, estimated and edited) associated with such systems should be considered bill quality data. PECO requests that the Commission confirm its definition of the term bill quality.

Second, the implementation period for modifying the 867 IU transaction should be coordinated with the implementation schedules in EDC smart meter plans. The Tentative Order's proposed implementation period of 12-months prior to the end of the 30-month grace period is not aligned with the timelines in PECO’s Commission-approved Smart Meter Plan.\(^7\) PECO’s 30-month grace period expires in the beginning of November 2012. Thus, in PECO’s case, the Tentative Order proposes an implementation deadline by early November 2011 – less than three months from today. PECO does not believe that it would be possible to implement the proposed modification within such a short period of time. Moreover, in accordance with the

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\(^7\) *Petition of PECO Energy Company for Approval of its Smart Meter Technology Procurement and Installation Plan, Docket No. M-2009-2123944 (approved May 6, 2010).*
schedule in its Smart Meter Plan, PECO's MDMS and its systems to share MDMS data with third parties will not be fully operational until mid-2012. Thus, with the exception of certain existing interval data customers, PECO will not have the means to collect significant interval data to share with customers and their authorized agents until mid-2012 at the earliest. In addition, as with all system modifications, EDCs and EGSs will need time to perform extensive testing of the modified systems to ensure that they work properly before they are put into operation. Given the foregoing, PECO submits that it would be more efficient to implement this IU requirement once its MDMS system is fully deployed. Therefore, PECO recommends that the Commission allow at least six months after the close of the 30-month grace period for implementation of this requirement.

Additionally, PECO believes that EDEWG should seek additional input from EGSs before implementation to clarify several points. If an EGS receives all data at the meter level, the EGS will have to implement procedures to roll-up that data to the account level for billing purposes; this function is currently handled by the EDCs. PECO suggests that it would be helpful to know whether all or only some members of the EGS community want this functionality. Further, EGSs will have to make changes to their own systems to enable them to use the meter level data and will need some education as to the new billing constants and multipliers they must use to do so. Also, some EGSs may prefer to continue to receive the data at the account level to simplify their data processing. Thus, we expect that EDCs will be required to design their systems to enable the provision of both meter and account level data, which will add some additional time, complexity and cost to the modification. Given the

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8 Interval data will be available at that time only for those customers that have had a smart meter installed as part of the initial phase of deployment.
foregoing, additional input from a broad cross-section of the EGS community is critical in order to reach an efficient and effective solution.

B. Data Exchange Standards for New Business Processes

As noted above, PECO agrees with the Commission that EDEWG should review and consider smart meter standards activities being undertaken by national organizations such as NAESB. The Commission should encourage EDEWG to adopt existing national standards where appropriate and provide any necessary Pennsylvania implementation guidelines rather than writing Pennsylvania-specific standards.\(^9\) NAESB standards are developed by teams with broad representation from many parts of the energy industry, including EDCs and EGSs, and EDEWG should leverage that work. EDEWG has already set a precedent for adapting a national standard for use in Pennsylvania in the course of its work on retail choice. Several years ago, EDEWG adopted a Gas Industry Standards Board ("GISB," a precursor to NAESB) standard for "Internet EDI." Rather than rewrite the standard, EDEWG reviewed and adopted it for the Pennsylvania market, modifying certain language as necessary for alignment with Commission orders.

More specifically, PECO notes that three NAESB standards that are either complete or nearing completion may be useful in the context of Pennsylvania’s smart meter implementation. The three relevant standards are 1) *Business Practices and Information Models to Support Priority Action Plan 10- Standardized Energy Usage Information*; 2) *Third Party Access to Retail Customer Smart Meter-Based Information*; and 3) *Energy Services Provider Interface Standard*.\(^{10}\) EDEWG should consider whether these standards may be helpful for Pennsylvania. PECO also suggests that EDEWG consider bringing in an expert or experts from the relevant

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\(^{9}\) Many EGSs operate in multiple states, so they may find the use of national standards to be helpful.

\(^{10}\) NAESB Standards are posted on its website, [http://www.naesb.org/default.htm](http://www.naesb.org/default.htm).
national standards development teams to provide guidance on how the standards were developed and how they can be used.

Finally, PECO agrees with the Commission and EDEWG that input from affected stakeholders and their technical service providers would be helpful in the standards development process. Accordingly, PECO asks that the Commission encourage additional stakeholders to become actively involved in the EDEWG process

C. Timeline for Development of Smart Meter Data Exchange Standards

1. Functionality and Standardization

In the Tentative Order, Commission asks EDEWG to review each EDC’s smart meter plan for the provision of three specific functionalities: (a) direct customer access to hourly usage and price information; (b) support for automatic control of a customer’s electricity consumption by the customer, utility or the customer’s agent; and (c) direct meter access and electronic access to customer meter data by third parties with customer consent. Platforms are being developed now to address the need for prompt, direct access to information.\textsuperscript{11} For example, PECO is working on a platform to provide access to meter data for customers through web presentment, which appears to be the most useful access route for many customers. In addition, customer and third-party access through 867 HIU and developing Home Area Network ("HAN") technologies are among the emerging avenues of access to meter data. Finally, access to data to support automatic load control processes is being developed. PECO notes that in a competitive retail market, third-party providers such as curtailment service providers would offer programs for load control; the utility would not offer those products itself.

\textsuperscript{11} As recognized in the Implementation Order, EDCs are not required to provide physical access to their meters or Advanced Metering Infrastructure networks due to security and performance considerations. Implementation Order, p. 27.
The suggestion in the Tentative Order that EDEWG review Commission-approved smart meter plans concerns PECO. EDCs have spent millions of dollars to implement processes and design infrastructure in reliance on the Commission’s approval of their smart meter plans. To suggest that those plans may now be subject to change will introduce significant risk and uncertainty into the smart meter implementation process and could delay or complicate ongoing efforts of EDCs to implement measures that have already been approved, including implementation of the AMI network infrastructure itself.

For example, since 2010, PECO has been actively engaged, and has invested substantial resources, in the implementation of its Smart Meter Plan as approved by the Commission (with certain modifications) on May 6, 2010.\textsuperscript{12} The Plan calls for the purchase and installation of 600,000 smart meters by April 2013 and the installation of smart meters for all 1.6 million of PECO’s electric customers over the next 10 years. That is five years faster than required by Act 129. Even before the Plan received final approval, PECO’s multi-disciplinary team of technology and project management experts began preliminary planning for the complex implementation process. Activities included a competitive vendor selection process commencing in August 2009 for smart meter network vendors, meter equipment vendors, installation services, and IT system integrators.

PECO is concerned that a suggestion that those approved plans are subject to change could create uncertainty for PECO and its vendors, contractors and customers and asks that the Commission clarify that Commission-approved smart meter plans are not subject to revision by EDEWG.

\textsuperscript{12} Petition of PECO Energy Company for Approval of its Smart Meter Technology Procurement and Installation Plan, Docket No. M-2009-2123944 (approved May 6, 2010).
2. **Statewide Solutions and Costs**

The Tentative Order asks EDEWG to perform a review of the ability for a statewide solution to provide the functionalities described above, as well as a review of the costs for such a statewide solution. PECO asks that the Commission clarify whether it is seeking a uniform statewide IT solution with this request or whether it is looking for more uniform statewide business rules.\(^\text{13}\)

Even if the Commission is only requesting analysis of the IT aspects of a statewide solution, PECO does not believe it is realistic to expect a firm recommendation on all functionalities and standardization efforts within 90 days of the Final Order. EDEWG will have the difficult task of sorting through the differences among the EDCs’ internal processes and the differences in their smart meter plan development and implementation and determining which of those processes (if any) should be deployed statewide through any common systems support. This may require that a cost-benefit analysis be performed on the various options, a task that EDEWG lacks the expertise to perform. Accordingly, PECO believes that EDEWG may need additional resources or expertise to accomplish a meaningful analysis. In addition, as noted above, input from stakeholders on smart meters will be critical to making workable judgments about statewide processes. EDEWG is a volunteer organization without full-time staff – a technical working group originally intended to develop technological standardization and maintenance of electronic data exchange in support of retail electric competition. EDEWG participants are technical subject matter experts qualified to discuss the technological aspects of

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\(^{13}\) If the request is for a broader policy evaluation or the development of business rules, EDEWG may not be the appropriate organization to review as it is a technical working group that does not make business policy recommendations. For example, in the retail competition context, EDEWG elevates questions about policy or business rules to the CHARGE forum (the “Committee Handling Activities for Retail Growth in Electricity”), which provides business context and guidance. CHARGE sometimes refers matters back to the EDEWG for technical implementation and oversight in light of its guidance.
standards. Accordingly, additional expertise and input from a broader group of stakeholders is critical to a meaningful analysis of a statewide solution.

III. CONCLUSION

PECO appreciates the opportunity to comment on the Tentative Order and asks that the Commission consider its comments. PECO looks forward to working with the Commission and EDEWG on the important technical issues associated with the implementation of smart meters.

Respectfully submitted,

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Date: August 22, 2011

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BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

SMART METER PROCUREMENT AND INSTALLATION: DOCKET NO. M-2009-2092655

CERTIFICATE OF SERVICE

I, Jeanne J. Dworetzky, hereby certify that I have this day served a true and correct Copy of the Comments of PECO Energy Company to the July 8, 2011 Tentative Order electronically upon the following:

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