COMMONWEALTH OF PENNSYLVANIA

OFFICE OF CONSUMER ADVOCATE
555 Walnut Street, 5th Floor, Forum Place
Harrisburg, Pennsylvania 17101-1923
(717) 783-5048
800-684-6560 (in PA only)

IRWIN A. POPOWSKY
Consumer Advocate

FAX (717) 783-7152
consumer@paoca.org

September 25, 2009

James J. McNulty
Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120

RE: Petition of PECO Energy Company for Approval of its Smart Meter Technology Procurement and Installation Plan
Docket No. M-2009-2123944

Dear Secretary McNulty:

Enclosed for filing are the Comments of the Office of Consumer Advocate, in the above-referenced proceeding.

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

Respectfully Submitted,

Jennedy S. Johnson
Assistant Consumer Advocate
PA Attorney I.D. #203098

Enclosures
cc: Honorable Marlane R. Chestnut
Office of Special Assistants

00118055.docx

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Petition of PECO Energy Company for Approval of Its Smart Meter Technology Procurement And Installation Plan	: : : :	Docket No. M-2009-2123944

COMMENTS
OF THE
OFFICE OF CONSUMER ADVOCATE

Jennedy S. Johnson
Assistant Consumer Advocate
PA Attorney I.D. # 203098
E-Mail: JJohnson@paoca.org
Tanya J. McCloskey
Senior Assistant Consumer Advocate
PA Attorney I.D. # 50044
E-Mail: TMcCloskey@paoca.org

Counsel for:
Irwin A. Popowsky
Consumer Advocate

Office of Consumer Advocate
555 Walnut Street
5th Floor, Forum Place
Harrisburg, PA 17101-1923
Phone: (717) 783-5048
Fax: (717) 783-7152

Dated: September 25, 2009

TABLE OF CONTENTS

I. INTRODUCTION

The Office of Consumer Advocate (OCA) is filing these Comments in accordance with the Notice in the Pennsylvania Bulletin published August 29, 2009. 39 Pa.B. 5218. These Comments are in response to the Petition of PECO Energy Company (PECO or Company) for Approval of its Smart Meter Technology Procurement and Installation Plan. The OCA submits these comments as a first step in addressing its initial concerns with PECO's Plan and will submit expert testimony, in accordance with the Procedural Schedule, further detailing these and other issues relating to the Plan. The OCA requests that the Commission review these Comments in conjunction with the OCA's testimony and briefs.

A. Background

On November 14, 2008, Act 129 of 2008 (Act 129) became effective. Act 129 contained several provisions including provisions requiring the development of Energy Efficiency and Conservation Programs for EDCs with more than 100,000 customers; amending the duties of Electric Distribution Companies' (EDCs) obligation to serve; requiring the filing of Smart Meter Technology Procurement and Installation Plans and Time of Use Rates; detailing additional market power remediation for market misconduct; adding alternative energy sources; and beginning a Carbon Dioxide Sequestration Network. 66 Pa.C.S. § 2806.1 *et seq*. The Act also makes a number of significant amendments to the Pennsylvania Public Utility Code, many of which will have a direct impact on the rates and service of the customers of Pennsylvania's EDCs.

Of particular relevance here, Act 129 requires Electric Distribution Companies with at least 100,000 customers to present a Smart Meter Technology Procurement and Installation Plan (Plan) to the Pennsylvania Public Utility Commission (Commission) for approval. 66 Pa.C.S. § 2807(f). Each Plan must describe the smart meter technologies that the EDC plans to install upon customer request or in new building construction and in accordance with a deprecation schedule not to exceed fifteen (15) years. Id. Act 129 also requires that, with customer consent, the EDCs make available direct meter access and electronic access to customer meter data to third parties including electric generation suppliers (EGSs) and providers of conservation and load management services. Id. The Act also defines the minimally acceptable smart meter technology requirements and capabilities. 66 Pa.C.S. § 2807(g). Finally, the Act establishes acceptable cost recovery methods. 66 Pa.C.S. § 2807(7).

On March 30, 2009, the Commission issued a Secretarial Letter seeking comments on a draft staff proposal and additional questions regarding EDC smart meter procurement and installation. Comments were due by April 15, 2009, with reply comments due April 27, 2009. On April 9, 2009, the Commission, at the request of several interested parties, issued a Secretarial Letter extending the comment period to April 20, 2009 and the reply comment period to April 29, 2009. The OCA filed comments on April 20, 2009.

On June 24, 2009, the Commission entered an order detailing the standards and guidelines for implementing the smart meter requirements of Act 129. See Smart Meter Procurement and Installation, Docket No. M-2009-2092655 (Implementation Order). In that Order, the Commission granted a network development and installation grace period of up to thirty (30) months following plan approval and clarified that the fifteen-year depreciation period should commence upon plan approval (with the thirty month grace period to be treated as part of that timeframe). Id. at 7, 15. The Commission specifically removed support for service-limiting and prepaid service as a minimum capability requirement due to their policy implications and determined to resolve these issues in another proceeding prior to requiring such capability in smart meters. Id. at 18.

As to cost recovery, the Commission allowed each EDC to develop a reconcilable adjustment clause tariff mechanism in accordance with 66 Pa.C.S. § 1307. Implementation Order at 31. The Commission did, however, hold that loss of decreased revenues by an EDC due to reduced electricity consumption or shifting energy demand cannot be considered a cost of the smart meter technology recoverable under a reconcilable automatic adjustment clause. Id. at 28. As to allocation of costs to customer classes, the Commission required that all measures associated with an EDC's smart metering plan be financed by the customer class that receives the benefits of such measures. Id. at 32.

In the Implementation Order, the Commission called for the publication of the Plans in the *Pennsylvania Bulletin* and allowed for the filing of Comments on the Plan by September 25, 2009. Id. at 4. The Commission also directed that at least one technical conference be scheduled for each EDC that will be transcribed with the transcript becoming part of the record. Id. The technical conference for this docket has been scheduled for October 7, 2009 and evidentiary hearings are scheduled for November 12 and 13, 2009.

The OCA has retained a team of experts that are reviewing the Company's filing. The OCA plans to file detailed written testimony in accordance with the procedural schedule established in this proceeding and participate in the technical conference and evidentiary proceedings. The OCA provides these initial Comments on PECO's Plan in accordance with the Commission's Implementation Order.

B. Summary of PECO's Smart Meter Plan

PECO has proposed a two-phased Plan to achieve its Smart Meter goals. Phase One of the Plan will span the 30-month grace period established by the Commission in its Implementation Order, and Phase Two will begin in 2012 with PECO filing a universal meter deployment plan. Petition at 4, 8. Phase One of the Plan focuses on the selection of smart meter technology to be deployed; the implementation of a meter data management system (MDMS) and other information technology (IT) investments; the testing and validation of the smart meter technology; the deployment of the advanced metering infrastructure (AMI) communication network (AMI Network); the initial deployment (pilot) of smart meters and the development of a program to educate customers and implement initial dynamic pricing options. Id. at 4-5. Phase Two of PECO's Smart Meter Plan will include the universal deployment of smart meters throughout PECO's service territory. Id. at 5.

PECO plans to implement its two-phased approach through three major filings with the Commission, including this Petition. Petition at 5. The first filing is the instant Petition whereby PECO seeks to gain approval for the launch of the Phase One procurement processes—including the procurement of a MDMS, an AMI Network and an initial quantity of 100,000 up to 600,000 smart meters.[1] Id. In June 2010—during Phase One—PECO plans to make its second major filing with the Commission asking for approval of an initial (test) dynamic pricing and customer acceptance program—including both customer education and data collection components. Id. at 7. PECO intends to employ a collaborative process with interested stakeholders to design and develop this program. Id. The third major filing will be made in

[1] On August 1, 2009, PECO filed for a Smart Grid Investment Grant pursuant to the American Recovery and Reinvestment Act (ARRA) with the U.S. Department of Energy (DOE) for $200 million to mitigate the net costs of PECO's Phase One smart meter investment costs. Petition at 5. If it is awarded the full $200 million, PECO proposes to expand its initial meter deployment from 100,000 to 600,000 meters. Id.

2012 and will detail the specific schedule for deployment of the remaining smart meters—in a time period not to exceed ten (10) years. Id. at 8.

As noted above, PECO's Phase One contains many components. PECO intends to utilize a competitive RFP process to procure the AMI Network and smart meters and seek Commission approval of such agreements in the first quarter of 2010. Petition at 6. PECO anticipates that the MDMS will be operational by summer 2011 and that the AMI Network will be operational by early 2012. Id. Once the MDMS and AMI Networks are operational and the initial dynamic pricing and customer acceptance program (described above) is in place, the Company will deploy the new advanced metering communications network across the PECO service territory and begin the initial installation of smart meters. Id. at 7. As noted above, Phase One will include the procurement and deployment of 100,000 meters (at a minimum) and up to 600,000 meters if PECO receives its full ARRA request. Id.

PECO estimates that the cost of the initial AMI deployment will be $215 million, though costs may range from $125 to $225 million depending on equipment, installation and IT development costs and meter and installation costs. Petition at 9. If 600,000 meters are deployed rather than 100,000 meters, initial deployment costs are estimated to be $290 million, though costs may range from $210 to $300 million. Id. The ARRA funding would reduce the PECO-funded portion of the expenditures to $148 million. Id. Also, to the extent that PECO deploys its smart meters sooner than would be required simply to replace failures of its existing AMR meters and meter communication modules, it will incur accelerated depreciation on the existing meters and modules. Id. The estimated total accelerated depreciation on the initial deployment of 100,000 and 600,000 meters is $5 million and $24 million, respectively. Id.

PECO estimates that its total cost to offer smart meters to all of its customers will range from \$500 million to \$550 million, not including any ARRA grant money. PECO St. 4 at 7.

The Company proposes to recover its Smart Meter Plan costs initially through a non-bypassable Section 1307 cost recovery mechanism (Smart Meter Cost Recovery Charge). Petition at 9-10; 66 Pa.C.S. § 2807(f)(7). The Company plans to project the costs to be recovered each year, track its actual costs, compare those costs to its revenue under the surcharge for the same period and make any adjustments needed to reconcile costs and revenues in subsequent filings. Petition at 10. The Smart Meter Cost Recovery Charge will be calculated separately for each rate class. Id. Further, PECO notes that it is considering proposing, in a subsequent base rate case, removal of all meter and meter reading costs from its base rates and recovery of these costs through the Section 1307 mechanism. PECO St. 5 at 4. Once the new smart meter system is fully deployed, the meter and meter reading costs would be rolled back into base rates. Id. at 5. The OCA has performed a very preliminary calculation to estimate the effects of the Plan on residential customers. If the Company does not receive any ARRA grant money, the OCA estimates that residential customers will pay an additional \$0.57 per month in 2010, \$2.43 per month in 2011, and \$2.67 per month in 2012. If the Company receives the full ARRA grant, the OCA estimates that customers will pay an additional \$1.09 per month in 2010, \$2.10 per month in 2011, and \$2.67 per month in 2012.

The OCA submits that the Company's general approach is reasonable insofar as it is multi-phased and allows for review and revision throughout the Plan period. The OCA supports PECO's multi-step, collaborative approach and looks forward to working with PECO to ensure that each phase of its Plan is implemented in a manner that is most beneficial to the Company's customers. The OCA will, however, identify specific issues of concern and make recommendations regarding the Company's filing both at this time and in the OCA's testimony, which will be submitted in accordance with the Procedural Schedule.

II. COMMENTS ON THE PLAN AND ITS PROGRAMS

A. Introduction

Act 129 made several critical changes to the Public Utility Code in an effort to bring reliable, affordable, efficient and environmentally sustainable electric service to Pennsylvania consumers at the least cost over time. In this proceeding, the Commission will consider the provisions of Act 129 that call for the deployment of smart meter technology as one tool to achieve the overall goals of Act 129. The OCA submits that the deployment of smart meter technology throughout the Commonwealth is a challenging initiative with many uncertainties and unknowns at this time. Smart metering technology is in the development stage with many vendors offering a variety of capabilities and functionalities at various costs. Yet, at this stage of development, many of these technologies are not interoperable with one another and many standards for equipment and protocols remain unresolved. Additionally, new technologies and possibilities continue to emerge that could threaten to make existing technology obsolete.

There has not yet been significant full scale deployment of smart meters across much of the Nation. The 2008 FERC Staff Report on Demand Response and Advanced Metering says that 6.7 million smart meters are installed across the Nation—a penetration rate of 4.7%.[2] Pilot projects throughout the Nation continue, and the OCA anticipates that the next few years will be critical to the development and understanding of the issues and challenges of full scale smart meter deployment.

---

2 See also Residential Energy Management: Company, Alliance and Technology Profiles, Parks Associates, available at http://newsroom.parksassociates.com/article_display.cfm?article_id=5168 (July 14, 2009) (stating that over 8 million smart meters have been installed in the United States at a penetration rate of over 6%).

Based on its preliminary review of the Plans filed by the Pennsylvania EDCs, the OCA submits that most of the Pennsylvania EDCs that are faced with this challenge have proposed a generally reasonable approach. PECO has proposed a Plan that will allow it to utilize the thirty (30) month grace period provided in the Commission's Implementation Order to conduct analysis and research, operate pilot programs, continue evaluations of technology, and make additional filings as milestones and decision points are reached. The OCA generally agrees with an approach that will allow PECO to take the time to develop a detailed business case that fully considers the goals of the smart metering program, the costs and benefits of the system, the need to integrate technological changes, customer research regarding the potential use and acceptance of the systems, and the evaluation of lessons learned.

Such an approach is particularly appropriate given the uncertainties that currently exist and the state of technological development in the industry. Deploying smart meters is not simply a task of replacing hardware that is outside of a home or business and then continuing with business as usual. New or heightened challenges will be faced in many areas. By way of example, the deployment of smart meters provides new challenges regarding security of the system and the privacy of customer information. The identification and design of a secure and protected system will be a major challenge. As the Commission is aware, cybersecurity is a growing concern. With access to data by the utility and third parties, diverse communications systems such as in-home networks, internet connections, radio communications, and the utility backbone communication infrastructure, the potential for unauthorized access of critical systems and information is a major concern. Standards and systems that provide a secure platform are still under development nationwide, but firm and comprehensive solutions have not been fully developed or deployed in a large scale.

The privacy of customer information will also present a new challenge to the EDCs and the Commission. With smart metering, electricity data at a granular level that has never before been available will now be collected on each and every customer. While such data may be able to provide benefits for some customers, the potential for pitfalls and unintended consequences now exists at a level never before contemplated by the Commission, the stakeholders, or the EDCs. It will be critical to both the acceptance of the smart meters by customers and to the proper implementation of the smart meter initiative that these issues be fully considered and that the necessary protections be developed during the early stages of the Plans.

Other consumer protection issues are also likely to be presented by the move to smart metering. For example, the Commission has required in its Implementation Order that each EDC include a capability to remotely disconnect and reconnect service, subject to a cost/benefit analysis. Implementation Order at 18, 30-31. While the Commission cautions that each EDC will have to follow all applicable provisions of the Public Utility Code, it will also be important for the Commission to consider additional procedures to ensure that if this capability is included and utilized, the health and safety of the public is not put in jeopardy. One example of the issues to be addressed can be seen in situations where tenants often move in and out of multi-family buildings. Procedures will need to be established to ensure that the property is indeed vacant and that the property will not be damaged. Disconnecting a property from electric service, sight unseen, is an altogether different proposition than the current procedures typically followed when a customer is terminated or moves out of a residence.

In the OCA's view, the Smart Meter plan filed by PECO represents only the starting point for much of the work that must be done as Pennsylvania changes the way in which the EDC can interact with customers and the way in which customers can interact with (or impact) the electric grid as a whole. Some of these critical issues can be anticipated and throughout the course of this proceeding, the OCA will seek to identify and begin discussion of these issues. The OCA would note, however, that many of these issues will be developed through the evaluation, testing and pilot phases of the smart meter plans that have been proposed.

For these reasons, the OCA submits that the Commission should consider these Plans as the first step in the process of procuring and deploying smart meters and related infrastructure in Pennsylvania. The Commission has already correctly allowed for a thirty (30) month grace period wherein each EDC can continue its assessment of needs and technological solutions, complete its selection of technologies and vendors, establish its network designs, establish its plans for training, testing and installation of the necessary equipment, meters, and software, and establish plans to design, test and clarify the EDI transactions. As will be further detailed in the OCA's testimony in this proceeding, the Commission should ensure that during each task and leading up to each milestone, PECO collects the necessary information and conducts the necessary evaluations to inform each decision point. As these decision points are reached and decisions are made, the OCA submits that PECO should return to the Commission with a filing for Commission approval before proceeding to the next step. In this way, the Commission can ensure that as each new step approaches, the decisions are fully supported, the tasks for the next step are properly established and the necessary policy issues have been addressed.

In the remainder of these Comments, the OCA will briefly address some preliminary issues presented by PECO's Plan and its proposed cost recovery mechanism. The OCA anticipates that as discovery continues, as its expert witnesses continue their review, and as the technical conferences are held, additional issues will be identified and addressed through the OCA's Testimony and Briefs. Through these Comments, the OCA seeks to highlight some preliminary issues identified through its initial review.

B. PECO Must Demonstrate that Its Plan is Reasonable and Will Produce Just and Reasonable Rates

Act 129 requires each affected EDC to file a Plan for smart meter technology procurement and installation and provides for the recovery of reasonable and prudent costs associated with the approved Plan. 66 Pa.C.S. § 2807(f)(7). As a matter of sound public policy and ratemaking policy, the OCA submits that the Commission must ensure that each EDC provides substantial evidence that its Plan is cost-effective and reasonable and that any rate increase that must be borne by customers is just and reasonable. This burden rests with the utility and the cornerstone of this determination will be a sound cost/benefit analysis of the Company's technology, capabilities, and deployment strategy.

Act 129 establishes important goals for Pennsylvania in ensuring the availability of reliable, affordable, efficient and environmentally stable electric service at the least cost. The OCA fully supports these goals and recognizes the importance of smart meter deployment as one tool in helping to meet these goals. The cost estimates contained in the EDC Plans suggest that the costs of these efforts will be significant. The estimated cost of Smart Meter Plans for the seven major EDCs is around $1.5 billion, all of which will be collected from ratepayers. For PECO, the estimated cost of full deployment will range from $500 million to $550 million, not including any ARRA grant money. PECO St. 4 at 7.

There are many different approaches to designing a plan for the selection and deployment of smart meters. PECO must bear the burden of demonstrating that the particular design of its Smart Meter Plan is the most cost effective and reasonable approach out of the range of available alternatives. While PECO has estimated the costs of the Smart Meter Plan that it has proposed, the filing provides only limited information as to the specific benefits anticipated from the smart meter deployment. For those EDCs that already have automated meter reading such as PECO, PPL Electric and Duquesne Light Company, a large share of the benefits resulting from distribution operation savings, such as the reduction of meter reading costs, have already been achieved. Beyond these distribution operation savings, the majority of the benefits of smart meter deployment are in the area of enabling demand response.

Demand response benefits may be difficult to quantify at this early stage. One source of uncertainty is the magnitude of residential customer reductions in peak demand. These projections rely upon a number of assumptions, including participation rates and average reductions for residential customers, for which Pennsylvania has limited experience. As Pennsylvania gains more experience with the Energy Efficiency and Demand Response Programs initiated under Act 129 between now and 2013, it is possible that more certainty regarding these benefits will be developed. Another source of uncertainty concerns the value, in $/KW, of the demand reductions. This value rests on assumptions regarding the long term outlook for capacity prices in PJM. Given the volatility in these prices (seen through the RPM auction process), this value remains uncertain at this time.

While difficult to estimate, the OCA submits that a rigorous cost/benefit analysis is a key task that must be undertaken to determine whether the rates resulting from the Plan are just and reasonable. As mentioned, there are many different technologies that can be adopted, functionalities that can be included, and strategies that can be used for deployment of smart meters. A rigorous cost/benefit analysis that seeks to determine not only the costs, but the actual benefits, how those benefits are achieved, and how those benefits will be realized by customers is a necessary task to determine whether the alternative being selected is the most cost-effective and reasonable. In its Implementation Order, the Commission recognized the importance of this type of analysis when it directed that the EDCs obtain the necessary cost and savings information to evaluate certain smart meter capabilities so that the Commission can determine whether the additional capabilities, beyond the statutorily required capabilities, are cost-effective. Implementation Order at 30-31.

The OCA submits that the Commission must require more fully developed and rigorous cost/benefit analyses as a key task in the initial phase of PECO's Smart Meter Plan before any technology capabilities are finally selected and before a final deployment plan or schedule is determined. This cost/benefit analysis should also be used to inform the cost recovery so that the benefits and costs of smart meter deployment can be closely matched.

C. PECO Should Develop a More Detailed Plan for Consumer Education to Foster Customer Understanding of the Smart Meter Technology

For the major benefits of smart meter deployment to be realized on both a system-wide and individual customer basis, customers must understand and accept the smart meter, as well as be educated in utilizing its capabilities. Undoubtedly, for some customers, the smart meter will only be used as a billing meter, as those customers will not choose to participate in the voluntary rate programs that may be implemented. The OCA submits, however, that a smooth conversion to smart metering is vital to realizing the benefits and that such smooth transition will require adequate and effective consumer education for all customers.

At this time, efforts have, understandably, been directed toward analysis of the technology and systems that will be required, and the specific steps necessary to procure and deploy the Smart Meters. As PECO's Plan develops and milestones are achieved, however, the Company must also begin the process of articulating the purpose and goals of the smart meter initiative to customers and communicating information to customers about the Smart Meter Plan. PECO must also clearly communicate to its customers, among other things, what the smart meter is, what it does, how it can be used to the benefit of the customer, what changes in rules, rights or procedures may take place, and what protections are in place for the data that is now being collected. Without this education, many of the benefits of smart meters could be lost.

The OCA submits that PECO should include milestones and tasks in its Plan related to educating consumers and gaining consumer acceptance of the smart meter initiative.

D. An On-Going Process for Review of the Decisions, Milestones and Tasks Is Necessary

As noted above, the Company's Plan establishes various milestones with the expectation that PECO will return to the Commission with additional filings to seek approval of decisions that have been made and the next steps that will be undertaken. During the two phases of its Plan, PECO anticipates making two additional filings with the Commission. Petition at 5-8.

The OCA submits that the Commission should make clear that approval of the Plan, at this time, is approval of this process only and not of individual decisions that may be made along the way. It will be critical for PECO to return to the Commission with additional filings, information, and analyses as milestones are achieved, decisions are ready to be made, and next tasks are to be determined. The current Plan was created with much information still to be developed and many decisions still to be made. Each of these decision points can have a significant impact on both customers and the Company. The OCA submits that it is reasonable for the Company to make the necessary additional filings so that all input can be provided as to the proper course.

The OCA also submits that the Commission should determine the milestones, or points in the Plan development, that require further filings with the Commission. PECO plans to make two more filings with the Commission regarding its Plan. The OCA agrees with the schedule for these two filings but submits that additional filings may also be necessary as technology is procured and plan details are solidified.

It is also worth noting that every step of this project from the planning through implementation and maintenance will offer opportunities for learning and improvement. The OCA commends PECO on its commitment to a collaborative process, similar to the one utilized in its EE&C Plan. The OCA submits that this process should be used to evaluate lessons learned along the way and include flexible responsiveness to maximize the benefits to all PECO customers.

E. Customer Issues

i. *Deployment*

As was noted above, PECO intends to deploy 100,000 (and up to 600,000) meters at a cost of $125 to $300 million. Petition at 7. PECO's filing does not include specifics for many aspects of meter deployment including who will receive the initial deployment of meters, technical training, customer education, and in-home display options. Through its conversations with the Company, the OCA has learned that these elements are largely dependent on the vendor(s) and IT System that are selected as part of the RFP process. While the OCA understands the practical limitations of submitting the Plan prior to selection of vendors and technology, the OCA is concerned that these important aspects of the Plan will not be given proper scrutiny unless the parties have the ability to review PECO's future plans on a timely basis. Accordingly, the OCA requests that the Commission require the Company to make additional filings and obtain Commission approval prior to the start of specific meter or in-home display installation or customer education programs.

ii. *Cost/ Benefit*

As was mentioned above, PECO must provide sufficient support to demonstrate that all costs relating to its smart meter deployment and installation plan are reasonable and prudent. Implementation Order at 32. While the Company has provided cost estimates for both phases of its Plan, questions regarding how costs may vary by customer type remain. Further, the Company has not provided detail or quantification of the expected benefits to customers or of how and when customers will receive these benefits. Such benefits may include easier and less costly operations and more rapid identification of those customers whose meters have been tampered with and of those meters that need replacement. A thorough cost/benefit analysis, in addition to helping to determine optimal technology choice, will help determine if customers are receiving sufficient value associated with the significant investment PECO is making to develop and deploy smart meters. In light of these potential benefits, the OCA submits that the Company should be required to estimate the cost and reliability savings that may accrue to customers from this Plan.

Individual customers are not the only ones who will receive the benefits of smart metering. Benefits may also exist in the form of system-wide peak demand reduction, overall energy price reductions, reduced congestion costs and reduced blackouts and forced outages. The OCA submits that the Company should study these benefits as part of its cost benefit analysis.

iii. *Remote Connection/ Disconnection*

PECO plans to include remote connection/disconnection functionality as a component of the smart meters it will procure. See PECO Exh. 1 at 41-42; PECO St. 5 at 9. PECO estimates that this function will add approximately $35 in cost to each smart meter but asserts that the savings derived from this function will outweigh its incremental costs. PECO St. 4 at 10. The OCA submits that the cost/benefit analysis relating to remote connection/disconnection must be subject to further scrutiny before any decision is made regarding its use. Although the remote connection/disconnection feature may help reduce operational costs, especially in areas where there is high customer turnover and in locations with hard-to-reach meters, the OCA submits that, EDCs should exercise this capability solely for starting service and for voluntary disconnections. The use of involuntary remote disconnection in a cold weather state like Pennsylvania—where electricity is often necessary for home heating—can cause health and safety issues especially for at-risk customers like the elderly, infirm and poor. In order to address these concerns, the OCA submits that PECO must establish a procedure whereby it can ensure that any property subject to remote disconnection is a voluntary request and that the property is indeed vacant. In the case of multi-family or commercial properties, procedures must be established to ensure that electric shut off will not result in harm to other residents. Further, the OCA submits that the ability to disconnect remotely should not alter any of the current termination procedures detailed in Chapters 14 and 56.

iv. *Rate Design*

The Implementation Order reiterates the requirements of Act 129 that Default Service Providers (DSPs) must submit Time-of-Use (TOU) rates and real-time pricing plans by

January 1, 2010, and that DSPs must offer TOU rates and real-time pricing to all customers who have smart meters. Implementation Order at 15-17; 66 Pa.C.S. § 2807(g). The OCA notes that PECO has not specified its future rate design for pricing signals; discovery is pending on this issue. Generally, the OCA submits that any TOU rates and residential participation in critical-peak pricing must be voluntary. If the intent of implementing TOU rates is to incent energy management by the customer through shifting usage, then consumer research should be able to identify the potential benefits and the type of customers who will best be able to manage their load. A voluntary program, properly constructed and marketed, would capture the majority of benefits without the adverse economic impact to those who cannot change their consumption patterns.

As PECO further refines its plan regarding TOU rates, the OCA also submits that PECO should take the following actions: initiate customer surveys on rate options to further refine their plan; clearly define any rebate options; implement an education process for customers regarding any rate changes and their participation; and evaluate lessons learned from any other states that are further along in this process. These items should be specifically required in the initial phase of the Plan.

F. Technological Issues

As was discussed above, Act 129 defines the required smart meter technology capabilities. 66 Pa.C.S. § 2807(g). The Implementation Order defines a smart meter as a device that includes the network to support it, the meter, 2-way communication, computer hardware and software, and fully trained support personnel. Implementation Order at 6. Moreover, the Implementation Order specifies a list of eight milestones of network implementation that must be scheduled throughout the 30-month grace period and a list of fourteen additional technical and functionality requirements. Id. at 7-9.

The OCA supports PECO's use of a competitive vendor selection process to select the AMI infrastructure. The OCA cannot, however, make a determination of whether the Implementation Order's requirements have been met until the Company actually selects its technology vendors and provides the technology specifications. In the interim, the OCA submits that the Company should provide the following information to aid in the evaluation of the Company's Plan:

1. Identification of the technologies available that can meet the Commission's requirements;
2. A detailed explanation of how PECO intends to protect customers from creating a stranded investment if the state of the smart meter technology market should shift; and
3. A clear description of the role that Home Area Network (HAN) systems will play in meeting the Commission's technology requirements, including whether PECO intends to provide this technology directly to customers or merely provide the capability.

III. COMMENTS ON COST RECOVERY

A. PECO's Cost Recovery Proposal

As was noted above, PECO has proposed a Section 1307 mechanism to recover the net costs of its smart meter plan. PECO St. 5 at 4. The Company plans to project the costs to be recovered each year, track its actual costs (including offsets for reduced costs), compare those costs to its revenue under the surcharge for the same period and make any adjustments needed to reconcile costs and revenues in subsequent filings. Petition at 10. The Smart Meter Cost Recovery Charge will be calculated separately for each rate class. Id.

Similar to a traditional base rate calculation, PECO's proposed calculation of recoverable costs includes the following components: (1) operation and maintenance (O&M) expenses; (2) depreciation; (3) return on rate base; (4) impact of flowing through accelerated tax depreciation for Pennsylvania state income tax purposes; (5) avoided costs and other benefits; and (6) a gross up for gross receipts tax. PECO St. 5 at 10. PECO also includes stranded costs in its proposed calculation.[3] Id. The individual components are further explained below:

> *O&M Expense*: The incremental expenses associated with the new smart meter system including, among others, administrative costs, operation costs for the meters, testing and the costs of the customer acceptance program. Id.
>
> *Depreciation*: The annual depreciation on new investments; most have a fifteen (15) year book life, although information technology costs have a five-year life. Id. at 11.
>
> *Return on Rate Base*: This component reflects both a return on the net investment at the Company's cost of capital and the income taxes associated with the equity portion of the cost of capital. Id.
>
> *State Tax Flow Through*: The flow through of the deductions of the benefits associated with accelerated tax depreciation. Id. at 11-12.
>
> *Avoided Costs and Other Benefits*: The benefits associated with any costs avoided by installing the new smart meter system, although none are expected in 2010. Id. at 12; see also PECO St. 4.

PECO will calculate its rate base using these components: gross plant, accumulated depreciation, a credit for any ARRA funding, accumulated deferred income taxes from accelerated depreciation and accumulated deferred taxes from the ARRA Grant. PECO St. 5 at 12. They are described by PECO as follows:

> *Gross Plant*: The investment in smart meters, the network communication system and any other capital investment required in the plan. Id. at 13.

---

[3] The stranded costs referenced here are those associated with current meter system that will no longer be used upon implementation of the new system, but whose value has not yet been fully depreciated. PECO St. 5 at 12.

Accumulated Depreciation: The depreciation on the gross plant investment recorded to the date of calculation. Id.

Stimulus Grant/ Accumulated Deferred Taxes: A credit to rate base for any funds received under the ARRA. Such funds will be treated as a Contribution in Aid of Construction (CIAC). Id.

Accumulated Deferred Income Taxes (ADIT): Any tax benefit associated with accelerated tax depreciation that is deferred will be deducted from rate base when calculating the return on rate base. Id.

PECO has provided an example of the calculation of recoverable costs in Exhibit ABC-2.

Once the calculation of recoverable costs is made, PECO will utilize a non-bypassable charge to apply to the bills of all customers whether they purchase generation service from PECO or an Electric Generation Supplier (EGS). PECO St. 5 at 14. The Company will project costs for one year and reduce that projection by any expected benefits or avoided costs. Id. at 15. The surcharge that will apply in any year will be calculated on the basis of the total estimated net costs to be incurred during that year. Id. A rate will be developed for each class by dividing the total costs for the class by the number of customers in the class and then dividing that number by twelve (12) (to derive the monthly charge). Id. This Smart Meter Cost Recovery Rider will not be a separate line item on the customer's bill, but will, instead, be included in the customer charge component of the bill. Id.

The Company proposes to file the calculation of its surcharge with the Commission by October 1st of each year for an effective date of the following January 1st. PECO St. 5 at 16. PECO further proposes that any over- or under-recovery be based upon the twelve (12) month period ending August 30th, with an interest accrual rate of 6%. Id. The Company would also make a prefiling by August 30th of each year containing an estimate of the over- or under-collection; the actual amount will be provided in the October 1st filing. Id.

B. Cost Recovery Recommendations

Based on its initial review, the OCA has several concerns about this cost recovery proposal. Specifically, in these comments, the OCA will discuss its concerns with the rate of return, stranded costs, deferred and incremental costs, and cost allocation and rate design aspects of the Company's Plan. As the OCA's expert witnesses review the Company's Plan and outstanding discovery responses, the OCA may identify additional concerns which it will present in its testimony and briefs.

The OCA's preliminary concerns are as follows. First, PECO has proposed to utilize the equity cost rate determined in its last base rate case prior to each annual update filing and its actual capital structure and debt cost at the time of each annual filings. PECO St. 5 at 7. In this proceeding, PECO has used an ROE of 11.5 percent which was its claimed ROE in its last base rate filing for its *natural gas* operations. PECO St. 5, Exh. ABC-2, pg. 1g. The OCA submits that the ROE used in a natural gas proceeding is not relevant to setting electric rates and should not be utilized. The OCA agrees, however, that the allowed return for each EDC should be based on the EDC's most recent Commission-approved capital structure and capital cost rates if that proceeding was within the last few years. It has been almost 20 years since PECO's last electric base rate case, so the ROE resulting from that case should not be used in this calculation.[4] The OCA submits that the current cost of equity for Electric Distribution Companies is not the 11.5% proposed by PECO. The most recent litigated Pennsylvania electric distribution cases were in 2006 and resulted in ROEs of 10.1%. Pa.P.U.C. v. Met-Ed Co., Docket No. R-00061366 and Pa.P.U.C. v. Penelec, Docket No. R-00061367 (Orders entered January 11, 2007). If the EDC's last base rate proceeding was not sufficiently recent, as is the

[4] According to the Fixed Utility Service (FUS) Quarterly Earnings Report for the Period Ended March 31, 2009, PECO was authorized an ROE of 10.26 percent in its 1997 electric restructuring case. FUS Report on Quarterly Earnings of Jurisdiction Utilities for the Period Ended March 31, 2009, Attachment C (FUS Report).

case with PECO, it is the OCA's view that the EDC's current capital structure and senior capital cost rates, if reasonable, could be utilized along with a properly updated ROE. One method to reflect any necessary change to the ROE would be to utilize the most recent Bureau of Fixed Utility Report on Quarterly Earnings to establish the necessary adjustment.

Second, as was discussed above, PECO has included $5 million of "stranded costs" under its plan for initial deployment of 100,000 meters over the period 2010 through 2012 and $45 million under its full deployment option if it receives an ARRA grant. Petition at 9. The Company then states that these amounts are for accelerated depreciation of existing meter investment and, under the full deployment option, include $3 million allocated to fees that PECO would be obligated to pay under its existing meter services contract that expires in 2014. Id. The OCA is awaiting a response to discovery as to how the claimed stranded costs were derived to determine if the resulting increase in accumulated depreciation has been recognized in the Company's filing. The OCA is concerned that the accelerated amortization requested by PECO will result in an increase on accumulated depreciation and a reduction in rate base that is not reflected in current base rates. If that is indeed the case, the OCA submits that the allowance of stranded cost recovery, if permitted, must be reduced each year to account for the increased buildup of accumulated depreciation.[5]

Finally, PECO has proposed to directly assign meter costs to customer classes. PECO St. 5 at 21. Other costs, such as the meter data management system, the network, and administrative costs, are allocated based on the number of customers. Id. The Implementation Order calls for the direct assignment of costs associated with an EDC's Plan to the customer class that received the benefit of such measures. Implementation Order at 32. The OCA agrees

---

5 The OCA also notes that the term "stranded costs" is not referenced as a recoverable cost in the Act. The OCA continues to evaluate the Company's claim from a factual, ratemaking and legal perspective.

that the cost of the meters themselves should be allocated on a customer basis but submits that it is inappropriate to allocate the other smart meter system costs, such as the meter data management system, the network, and administrative costs, based on the number of customers. As indicated in the Implementation Order, smart meter plan costs are appropriately allocated to those customer classes who derive benefit from such costs. Implementation Order at 32. The number of customers is neither a measure of the benefits derived from the smart meter system nor the causation of non-meter system costs. The OCA requests that the Commission consider that a more appropriate basis on which to allocate general smart meter systems costs (other than the meters themselves) may be on a kWh basis. Allocating those costs based on electricity usage recognizes that larger customers (in terms of usage) will derive greater benefits from the smart meter systems and the enhanced technological capabilities.

PECO has proposed to recover the costs allocated to the residential class through a fixed monthly customer charge. The Company's smart meter costs can be recovered from customers in three ways: (1) on a per kWh, or usage, basis; (2) through a fixed customer charge; or (3) through a combination of usage and fixed charges. The Company's proposal to collect all smart meter-related costs through fixed customer charges is not consistent with the Commission's ratemaking standards. The Commission has limited the costs that can be included for recovery in the customer charge to "basic customer costs" necessary to customer service. See e.g., Pa.P.U.C. v. West Penn Power Co., 69 PUR4th 470, 521 (1985) (West Penn); Pa.P.U.C. v. West Penn Power Co., 1994 Pa. PUC LEXIS 144, 154 (1994). The Commission has defined "basic customer costs" to include the costs for the meter and service drop, meter reading and billings. West Penn at 521. The OCA submits that recovery of the indirect component of smart meter costs on a per kWh basis would be more reflective of the greater benefits that residential customers with greater usage stand to realize from smart meter capabilities. Finally, because PECO will be allowed to fully reconcile smart meter costs and revenues, the Company bears no risk of under-recovery if actual sales are less than projected.

IV. CONCLUSION

The OCA appreciates this opportunity to provide Comments on this important topic. The OCA supports PECO's multi-stage, collaborative approach to this complex issues, but the OCA is concerned about the lack of specificity in parts of the Company's Plan and about certain aspects of the Company's cost recovery proposal. The OCA submits these comments as a first step in addressing its initial concerns with PECO's Plan and will submit testimony, in accordance with the Procedural Schedule, further detailing these and other issues relating to the Plan. The OCA requests that the Commission review these Comments in conjunction with the OCA's testimony and briefs.

Respectfully Submitted,

Jennedy S. Johnson

Tanya J. McCloskey
Senior Assistant Consumer Advocate
PA Attorney I.D. # 50044
E-Mail: TMcCloskey@paoca.org
Jennedy S. Johnson
Assistant Consumer Advocate
PA Attorney I.D. # 203098
E-Mail: JJohnson@paoca.org
Counsel for:
Irwin A. Popowsky
Consumer Advocate

Office of Consumer Advocate
555 Walnut Street
5th Floor, Forum Place
Harrisburg, PA 17101-1923
(717) 783-5048

Dated: September 25, 2009
117728.doc

CERTIFICATE OF SERVICE

Petition of PECO Energy Company for Approval of its Smart Meter Technology Procurement and Installation Plan	: : :	Docket No. M-2009-2123944

I hereby certify that I have this day served a true copy of the foregoing document, the Comments of the Office of Consumer Advocate, upon parties of record in this proceeding in accordance with the requirements of 52 Pa. Code Section 1.54 (relating to service by a participant), in the manner and upon the persons listed below:

Dated this 25th day of September 2009.

SERVICE BY E-MAIL and INTEROFFICE MAIL

Richard A. Kanaskie, Esquire
Carrie B. Wright, Esquire
Office of Trial Staff
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120

SERVICE BY E-MAIL and FIRST CLASS MAIL

Romulo Diaz, Esquire
Anthony E. Gay, Esquire
Exelon Business Services Company
2301 Market Street, S23-1
P.O. Box 8699
Philadelphia, PA 19101-8699
Counsel for: *PECO Energy Company*

Thomas P. Gadsden, Esquire
Kenneth M. Kulak, Esquire
Anthony C. DeCusatis, Esquire
Morgan Lewis & Bockius LLP
1701 Market Street
Philadelphia, PA 19103-2921
Counsel for: *PECO Energy Company*

Charis Mincavage, Esquire
Barry A. Naum, Esquire
Shelby A. Linton-Keddie, Esquire
McNees Wallace & Nurick LLC
100 Pine Street
P.O. Box 1166
Harrisburg, PA 17108-1166
Counsel for: *Philadelphia Area Industrial Energy Users Group*

Scott Perry, Assistant Counsel
Aspassia V. Staevska, Assistant Counsel
Commonwealth of Pennsylvania
Department of Environmental Protection
RCSOB, 9th Floor
400 Market Street
Harrisburg, PA 17101-2301
Counsel for: *Department of Environmental Protection*

Daniel G. Asmus
Sharon E. Webb
Assistant Small Business Advocates
Office of Small Business Advocate
Commerce Building, Suite 1102
300 N. Second Street
Harrisburg, PA 17101
Counsel for: *Office of Small Business Advocate*

George Jugovic, Assistant Counsel
Commonwealth of Pennsylvania
Department of Environmental Protection
400 Waterfront Drive
Pittsburgh, PA 15222-4745
Counsel for: *Department of Environmental Protection*

Harry Geller, Esquire
John Gerhard, Esquire
Pennsylvania Utility Project
118 Locust Street
Harrisburg, PA 17101
Counsel for: *Association of Community Organizations for Reform Now*

Jennedy S. Johnson
Assistant Consumer Advocate
PA Attorney I.D. # 203098
E-Mail: jjohnson@paoca.org
Tanya J. McCloskey
Senior Assistant Consumer Advocate
PA Attorney I.D. # 50044
E-Mail: TMcCloskey@paoca.org

Counsel for
Office of Consumer Advocate
555 Walnut Street
5th Floor, Forum Place
Harrisburg, PA 17101-1923
Phone: (717) 783-5048
Fax: (717) 783-7152

00116940.docx