

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

PETITION OF PECO ENERGY :
COMPANY FOR APPROVAL OF ITS :
SMART METER TECHNOLOGY : **DOCKET NO. M-2009-2123944**
PROCUREMENT AND INSTALLATION :
PLAN :

PETITION

PECO Energy Company (“PECO” or the “Company”) hereby petitions the Pennsylvania Public Utility Commission (the “Commission”) to approve PECO’s Smart Meter Technology Procurement and Installation Plan (the “Smart Meter Plan” or “Plan”) in accordance with the requirements of Act 129, 66 Pa. C.S. § 2807(f)(1) (“Act 129” or the “Act”). Specifically, PECO requests the Commission to: (1) find that the Smart Meter Plan satisfies the requirements of 66 Pa. C.S. § 2807(f)(1) –(f)(3) and the Commission’s June 24, 2009 Implementation Order; (2) approve the procurement and deployment of up to 600,000 smart meters by PECO during the 30-month grace period established in the Implementation Order; (3) approve PECO’s proposed tariff provisions and cost recovery surcharge mechanism pursuant to 66 Pa. C.S. § 1307 to fully recover the costs incurred by PECO in the implementation and operation of its Plan; and (4) approve PECO’s proposed incremental charges for installation of individual smart meters in advance of system-wide deployment pursuant to 66 Pa. C.S. § 2807(f)(2)(i).

PECO has been deliberate, measured and inclusive in developing its Plan. As a result, PECO believes that it has developed a prudent and well-structured Plan that balances the costs, benefits and risks associated with the deployment of smart meter technology. The Plan mitigates cost risks through a disciplined procurement process and the leveraging of purchasing power across Exelon operating units; technology risks through various levels of acceptance testing;

organizational and business process risks through reasonably paced initial and universal deployment phases; and customer acceptance risks by implementing an initial dynamic pricing and customer acceptance program to educate customers and gain insight into how customers will utilize new pricing options. Finally, the Plan seeks to leverage available federal funding, and builds on continuing, substantial stakeholder consultations.

I. INTRODUCTION

1. PECO is a corporation organized and existing under the laws of the Commonwealth of Pennsylvania with its principal office in Philadelphia, Pennsylvania. PECO provides electric delivery service to approximately 1.6 million customers and natural gas delivery service to approximately 475,000 customers in Pennsylvania.

2. On October 15, 2008, Governor Edward G. Rendell signed Act 129 into law and it was subsequently codified in the Pennsylvania Public Utility Code. On June 24, 2009, the Commission entered an order providing standards and guidance for implementing the smart meter requirements of Act 129. *See Smart Meter Procurement and Installation*, Docket No. M-2009-2092655 (Order entered June 24, 2009) (“Implementation Order”).

3. Generally, Act 129’s smart meter provisions require each electric distribution company (“EDC”) with at least 100,000 customers to submit, for Commission approval, a smart meter technology procurement and installation plan. 66 Pa. C.S. § 2807(f). Each smart meter plan must describe the smart meter technologies the EDC proposes to install upon customer request at the customer’s expense, in new building construction and in accordance with a depreciation schedule not to exceed 15 years. *Id.* The Act also requires EDCs to make available to third parties direct meter access and electronic access to customer meter data by third parties,

upon customer consent. *Id.* The Act further defines minimum smart meter technology capabilities. 66 Pa. C.S. § 2807(g).

4. Act 129 provides that an EDC is entitled to full and current recovery of its reasonable and prudent costs of providing smart meter technology, net of any operational and capital benefits the smart meter technology will create. 66 Pa. C.S. § 2807(f)(7). Recoverable costs include annual depreciation and capital costs over the life of the smart meter technology and the costs of any system upgrades required to enable the use of the smart meter technology. *Id.* EDCs may recover their net costs either: (1) on a current basis through a Section 1307 reconcilable surcharge; or (2) in base rates with authority to defer costs incurred between base rate cases. *Id.* Each EDC can choose which recovery method it will use.

5. In the Implementation Order, the Commission establishes a 30-month grace period after a smart meter plan is approved for the development and installation of a smart meter network. Implementation Order, p. 7. The Implementation Order also details plan requirements, including key milestones that should be addressed within the 30-month grace period and smart meter capabilities that an EDC’s smart meter technology must support. *Id.* at pp. 7-8, 15-17. The Implementation Order also provides guidance on smart meter plan cost recovery and cost allocation. *Id.* at pp. 28-33.

6. This Petition describes PECO’s Smart Meter Plan and PECO’s proposed mechanism for recovery of its Plan costs. This Petition includes the following statements and exhibits, which are attached hereto and incorporated herein by reference:

PECO Statement No. 1 – Direct Testimony of Craig L. Adams,
PECO Senior Vice President and Chief Operating
Officer

PECO Statement No. 2 –	Direct Testimony of Glenn A. Pritchard, Principal Engineer, Meter Reading Technologies, for PECO
Exhibit GAP-1	AMR System Illustration
Exhibit GAP-2	Key Milestones in PECO’s Smart Meter Plan
PECO Statement No. 3 –	Direct Testimony of Jeffrey T. Buxton, Executive Consultant for Enspira Solutions, Inc. (and consultant to PECO)
Appendix A	List of Current, Significant Utility Deployments of Smart Meter Technology
PECO Statement No. 4 –	Direct Testimony of Ann P. Kelly, Director of Finance Operations for PECO
Exhibit APK-1	PECO’s Estimated Costs of Initial Deployment
Exhibit APK-2	Evaluation of Remote Connection Capability for Smart Meters
PECO Statement No. 5 –	Direct Testimony of Alan B. Cohn, Manager of Revenue Analysis in the PECO Regulatory group
Exhibit ABC-1	List Of Prior Testimony
Exhibit ABC-2	Example Of Net Recoverable Cost Calculation
Exhibit ABC-3	Tariff Supplement For Proposed Cost Recovery Mechanism
Exhibit ABC-4	Tariff Rule 14.10 for Customer-Requested Advanced Meters
Exhibit ABC-5	Estimated Impact On Residential Customers
Exhibit ABC-6	Responses To the Filing Requirements Set Forth at 52 Pa. Code § 53.52
PECO Exhibit 1 –	PECO Smart Meter Technology Procurement and Installation Plan
Appendix 1	PECO Smart Meter Plan Implementation Timeline

II. PECO’S SMART METER PLAN

7. PECO’s Smart Meter Plan will be implemented in two complementary phases.

The first phase of the Plan (“Phase One”) will span the 30-month grace period established in the Implementation Order. It will focus on the selection of the 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 of smart meters; and the development of a program to educate customers and implement initial dynamic pricing options. Phase Two of PECO’s Smart Meter Plan will include the universal deployment of smart meters throughout PECO’s service territory.

8. As described below, the Plan’s two phases will be implemented through three major filings with the Commission, including this Petition.

9. In conjunction with this filing, PECO is seeking a grant from the U.S. Department of Energy (“DOE”) pursuant to the American Recovery and Reinvestment Act (“ARRA” or the “Stimulus Act”). Specifically, on August 6, 2009, PECO filed a Smart Grid Investment Grant with the DOE for \$200 million to mitigate the net costs of PECO’s Phase One smart meter investment costs and to enable the acceleration of the deployment of PECO’s smart meter system. PECO expects to be notified whether it has been successful in securing federal funds by the end of 2009.

A. Phase One of PECO’s Smart Meter Plan

10. PECO is making this initial filing to establish its Smart Meter Plan and 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 up to 600,000 smart meters. PECO will engage in a thorough technology contracting process to select, negotiate, and contract for the discrete elements that will make up PECO’s smart meter technology. The smart meter

technologies selected will support the minimum capabilities identified in Act 129 as well as the additional capabilities identified in the Implementation Order.

11. In order to pursue an aggressive schedule for designing and installing an IT system in advance of smart meter deployment and to achieve cost efficiencies, PECO intends to leverage competitively-sourced common MDMS, Middleware, and System Integration providers currently supporting the development of Exelon's AMI programs. Through direct negotiations with these suppliers, PECO will seek to amend Exelon agreements to integrate PECO requirements to support smart meter deployment, while also securing volume-based cost discounts as a result of an Exelon-wide approach. In the final quarter of 2009, PECO anticipates seeking expedited Commission approval of proposed agreements with MDMS, Middleware, and System Integration vendors.

12. To procure the AMI Network and smart meters, PECO intends to utilize a competitive process which contemplates one or more request for proposals ("RFPs"). In the first quarter of 2010, PECO anticipates seeking expedited Commission approval of proposed agreements with these selected AMI technology vendors.

13. PECO plans to begin build-out of its MDMS and AMI Network as soon as possible after obtaining the necessary Commission approvals. PECO intends to commence the planning work on the MDMS in late 2009 and projects the system will be installed and operational by the summer of 2011. PECO anticipates the initial AMI Network installation will begin in late 2010 and the full network will become operational by early 2012, well in advance of the end of the grace period.

14. The MDMS build-out and initial AMI Network installation will allow PECO to begin technology acceptance testing of the selected new AMI technology to ensure proper performance of the technology prior to broader deployment.

15. In June 2010, PECO will make its second major filing with the Commission, asking for approval of an initial dynamic pricing and customer acceptance program. Once the technology acceptance testing is complete, the initial dynamic pricing and customer acceptance program will be launched to test dynamic pricing options, educate customers about those options, and collect data from customer experience with dynamic pricing. The design of the program will be developed through a collaborative process with interested statutory advocates, government entities, meter technology providers and other stakeholders.

16. The final component of Phase One will be the deployment of the new advanced metering communications network across the PECO service territory and the initial installation of smart meters. The pace and number of smart meters in the Phase One deployment will be affected directly by the availability of ARRA funds to finance accelerated deployments. At a minimum, Phase One will include the procurement and deployment of 100,000 meters. If PECO receives its full federal funding request, PECO will expand its initial deployment to 600,000 smart meters. The initial deployment of smart meters is projected to begin in the fall of 2011.

17. Consistent with 66 Pa. C.S. § 2807(f)(3), PECO will be able to provide interval data to customers during the 30-month grace period upon customer request using its existing automated meter reading (“AMR”) system or its existing MV-90 interval data system for commercial and industrial accounts. In addition, upon customer request, PECO intends to provide direct access to the customer’s interval data to third parties via EDI transactions of the data currently available from its existing AMR system and any additional Advanced Read

Services it is able to procure. Commercial and industrial customers will continue to have the options of pulse outputs from existing MV-90 meters or interval data as currently provided.

B. Phase Two of PECO's Smart Meter Plan

18. In 2012, PECO will make its third and final major filing with the Commission. This filing will seek approval of the Phase Two universal meter deployment plan to complete the deployment of smart meters throughout the PECO service territory. The specific schedule of the deployment for the remaining smart meters is not finalized at this time and will be detailed in the final filing. The schedule will be based, in part, on the lessons learned from Phase One and the outcome of PECO's ARRA grant application. If DOE fully funds PECO's grant request, PECO will deploy 600,000 smart meters during Phase One, thus reducing the number of meters remaining to be changed out during universal deployment, and complete universal deployment in 10 years.

19. In accordance with the Implementation Order, if a customer requests that a smart meter be installed after the grace period but prior to universal deployment, the requesting customer must pay the incremental cost of that installation. Implementation Order, p. 10. Generally, the incremental cost will be the difference between the actual cost to install a meter and the average installation cost per meter as part of universal deployment. While there will be no additional cost for the meter because the customer would ultimately have a meter installed, the Company will incur an additional cost to install the meter outside of the planned installation schedule.

20. The estimated cost to install a meter as part of the mass installation is \$24. The standard cost for installing a meter under normal replacement scenarios is approximately \$40.

Thus, PECO is proposing that the customer pay the difference of \$16, adjusted for gross receipts tax, to have a smart meter installed early. In the case of more complex meter systems, the customer will have to pay an amount based upon an hourly labor rate, net of the cost under the universal implementation.

III. SMART METER PLAN COST RECOVERY

21. Act 129 provides that PECO's Smart Meter Plan costs are recoverable through a Section 1307 cost recovery mechanism or through base rates. 66 Pa. C.S. § 2807(f)(7). As described by Ms. Kelly, PECO's smart meter costs fall into several categories, including: (1) smart meter purchase and installation, (2) network communications system, (3) IT applications and support, (4) management and internal labor, and (5) customer acceptance testing of dynamic pricing programs.

22. The cost of the initial AMI deployment is expected to be \$215 million with a range of \$125 to \$225 million depending on equipment, installation and IT development costs as well as the meter and installation costs. If PECO receives matching ARRA grants for its smart meter expenditures, it will deploy up to 600,000 smart meters instead of 100,000. The additional meters purchased would increase the estimated initial deployment cost to \$290 million with a range of \$210 million to \$300 million. The requested ARRA grant for 50% of the project cost, if awarded in full, would reduce the PECO funded portion of the expenditures to \$148 million.

23. To the extent that PECO deploys smart meters sooner than required to replace failures of its existing AMR meters and meter communication modules, it will incur accelerated depreciation on these existing meters and modules. The estimated total accelerated depreciation on the initial deployment of 100,000 and 600,000 meters is \$5 million and \$42 million,

respectively. The total amount of accelerated depreciation will depend on the final timeline for universal deployment of the new AMI meters.

24. As described by Mr. Cohn, the Company proposes to establish a non-bypassable charge under Section 1307 of the Public Utility Code to recover the net cost of its Smart Meter Plan. The Section 1307 mechanism (the “Smart Meter Cost Recovery Charge”) will provide full and current recovery of PECO’s costs incurred during the implementation and deployment of the smart meters, the associated network and meter data management system. The Company will project the costs to be recovered each year, will track its actual costs, compare those costs to its revenue under the surcharge for the same period and make an appropriate adjustment to reconcile costs and revenues in subsequent filings.

25. The Smart Meter Cost Recovery Charge will be calculated separately for each rate class. This is consistent with the Implementation Order’s requirement that EDCs assign the costs of their smart meter programs to the classes that derive benefits from the plan and, if such assignment is not possible, they should use reasonable cost of service principles to allocate the costs. Implementation Order, pp. 32-33.

IV. PROCEDURAL ISSUES

26. The Implementation Order permits comments to smart meter plans to be filed by September 25, 2009. It also requires that a technical conference on smart meter plans be held during October 2009, with evidentiary hearings, if necessary, to be held during November 2009. Finally, the Implementation Order requires that Initial Decisions on the plans be issued on or before January 29, 2010. In accordance with the Implementation Order, PECO proposes the following schedule for this proceeding

August 14, 2009	Filing of the Plan
September 10, 2009	Prehearing Conference
September 25, 2009	Other Parties' Direct Testimony Due
October 5, 2009	Technical Conference
October 22, 2009	Rebuttal Testimony Due
November 12-13, 2009	Evidentiary Hearings
December 7, 2009	Main Briefs
December 18, 2009	Reply Briefs
January 29, 2010	Initial Decision

V. NOTICE

27. PECO is publishing notices of this filing in all of the major newspapers serving PECO's service territory. Such notices explain where copies of the filing may be obtained and how an interested person may participate in the proceeding. PECO is also issuing a press release to all major media (newspapers, television and radio stations) in its service territory. All notices will refer to PECO's website (www.peco.com/smart), where a copy of the entire filing will be maintained.

28. In addition to the above notice, PECO is serving copies of this filing on the Pennsylvania Office of Consumer Advocate, the Pennsylvania Office of Small Business Advocate, the Commission's Office of Trial Staff, licensed Electric Generation Suppliers, and various other interested stakeholders.

29. PECO respectfully requests the Commission publish notice of this filing in the Pennsylvania Bulletin on August 29, 2009 and further direct interested parties that they may (1)

seek to intervene in this proceeding by filing appropriate notices/petitions on or before September 9, 2009 and (2) submit comments or testimony on PECO's proposed Smart Meter Plan on or before September 25, 2009. Should the Commission conclude that further notice of this filing is appropriate, PECO will provide such additional notice as directed by the Commission.

VI. CONCLUSION

Based upon the foregoing, including the attached testimony and exhibits, PECO respectfully requests that the Commission grant this Petition and enter an Order:

(1) Approving PECO's Smart Meter Technology Procurement and Installation Plan and finding that the Plan satisfies the requirements of 66 Pa. C.S. § 2807 (f)(1) –(f)(3) and the Commission's Implementation Order;

(2) Approving PECO's proposed initial procurement and deployment of 100,000 smart meters, and expanded initial deployment of up to 600,000 smart meters in the event PECO's request for federal financial assistance pursuant to the American Recovery and Reinvestment Act of 2009 (Pub. L. 111-5) is fully funded by the U.S. Department of Energy; and

(3) Approving PECO's proposed tariff provisions and cost recovery surcharge mechanism pursuant to 66 Pa. C.S. § 1307 to fully recover PECO costs incurred in the implementation and operation of its Plan, including:

(a) smart meter technology capabilities established by 66 Pa. C.S. § 2807 and the Implementation Order, and

(b) accelerated depreciation costs PECO will incur for existing meters pursuant to 66 Pa. C.S. § 2807(f)(7).

(4) Approving PECO's proposed incremental charges for installation of individual smart meters in advance of system-wide deployment pursuant to 66 Pa. C.S. § 2807(f)(2)(i).

Respectfully submitted,



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For PECO Energy Company

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