

# AMI Pilot Programs



## Energy Smart Pricing Program Commonwealth Edison (ComEd)

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**Description:** ComEd began a voluntary program with 1,500 households in 2003, using Interval Recording Meters.

**Contact Information:** Anthony Star, 773-269-4017, astar@cnt.org

**Start / End Dates:** 2003 to 2006

**Program Administrator and Contact Information:** Community Energy, 773-269-4017

**AMI Solution / Product Used:** ABB Interval Recording Meters that ComEd already had deployed were used, read once per month manually.

**Evaluation Process and Responsible Parties/Experts:** Summit Blue Consulting did a third party evaluation to determine whether energy use changed due to peak pricing. Higher prices were found to result in reduced consumption.

**Results and/or Lessons Learned:** Over the life of the program, average savings were 10%, with peak reductions of 15-20% in addition to a small conservation effect. The Illinois Legislature passed a law in 2006 requiring that the state's two large utilities offer a residential real-time pricing program, subsidize the cost of advanced meters, and make a Program Manager available to interface with customers.

**Next Steps:** The "Power Smart Pricing" and "WattSpot" programs have been implemented due to the success of the pilot.

## Smart Energy Savers Program Baltimore Gas & Electric (BGE)

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**Description:** The AMI Pilot is a part of the BGE Smart Energy Savers Program, a Vision 2020 initiative. AMI is one of four projects aimed at improving BGE's operational efficiency, reducing customer peak energy demand, and reducing customer energy usage. AMI is foundational to other Vision 2020 initiatives such as Customer Experience, Proactive Customer Notification, Advanced Collection Practices, and more. AMI technologies establish two-way communication between the customers' meters and the BGE back office. This technology enables greater levels of functionality and customer service by providing remote daily meter data and on-demand communication access to the meters.

**Contact Information:** Mitchell Solkowitz, 410-470-1389, Mitchell.Solkowitz@bge.com

**Start / End Dates:** November 2007 to November 2008

**Sponsor(s) and Contact Information:** No external sponsors

**AMI Solution / Product Used:** Aclara RF, Sensus FlexNet, and Oracle MDM

**Evaluation Process and Responsible Parties/Experts:** An evaluation process will determine how well the AMI technologies have worked based on manufacturers' specifications. Additionally, the process will determine whether the pilot meets the requirements of BGE and the Maryland PSC.

**Results and/or Lessons Learned:** Results are not yet determined.

**Next Steps:** Installation of pilot meters and systems

## PPL Corporation (updated Sept. 2008)

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**Description:** This initiative is a summertime rate program targeted at Residential customers who consume at least 1,000 kWh/month for the four summer months (June through September). A rate rider applies to the normal residential service charge and replaces the existing declining block service charge with flat, cent-per-kWh on-peak and off-peak charges during these four months.

**Contact Information:** Doug Krall, 610-774-5736, dakrall@pplweb.com

**Start / End Dates:** June 2002 to October 2010

**Sponsor(s) and Contact Information:** No outside sponsors

**AMI Solution / Product Used:** Aclara TWACS

**Evaluation Process and Responsible Parties/Experts:** Evaluations take place annually; customer surveys were conducted in the initial years.

**Results and/or Lessons Learned:** Between 60% and 70% of participants have saved money. Additionally, customers involved in the program have consumed 19% of their kWh during the peak, whereas the average customer of the same type has consumed 24% of their kWh during the peak. There may also be a small conservation effect due to participants having a "green ethic."

**Next Steps:** In June 2008 the pilot doubled in size, from 300 to 600 participants. In 2010, a year-round version of the program will be offered. In September 2008 PPL filed with the PUC for approval of another TOU pilot for residential customers. This program would offer year-round (summer and non-summer seasons) on-peak and off peak pricing for 1,200 customers.

## Philadelphia Electric Company, (PECO) (updated Sept. 2008)

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**Description:** PECO has deployed 2.2 million advanced meters, both for electricity and gas customers in residential and large commercial/industrial customer classes.

**Contact Information:** David Glenwright, 215-841-6174, david.glenwright@exeloncorp.com

**Start / End Dates:** The installation project lasted from 1999 to 2003.

**Sponsor(s) and Contact Information:** Installation was performed by PECO, Cellnet, and VSI.

**AMI Solution / Product Used:** The Cellnet Fixed Network solution is used for 2.2 million meters. 3,000 large C&I customers are on MV-90 and Metretek.

**Evaluation Process and Responsible Parties/Experts:** Cellnet manages the network, performs meter maintenance, and provides data to PECO. All meters are read daily. Additional features include on-demand reads and event processing.

**Results and/or Lessons Learned:** AMR has been shown to reduce the number of estimated bills, improve the meter to cash cycle, increase revenue, reduce CAIDI and customer call volumes, and increase asset utilization, among others.

**Next Steps:** Create additional value by implementing "Day 2" benefits.

## myPower Pilot Program, PSE&G

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**Description:** The objective of the "myPower" pilot program was to understand the potential for changing the way customers think about energy delivery and consumption via the use of two-way communication technologies. This provided customers with additional consumption information and more flexible pricing options (TOU rates) so that customers could make more informed decisions on energy use. Some pilot customers were provided with in-home energy management technology (Smart Thermostats) in order for PSE&G to better understand the value it brings to this two-way communication exchange. The pilot included educational materials to help customers understand the energy consumption "cause and effect" relationship.

**Contact Information:** Susanna Chiu, 973-430-5719 and Fred Lynk, 973-430-8155

**Start / End Dates:** June 2006 to September 2007

**Sponsor(s) and Contact Information:** No outside sponsors

**AMI Solution / Product Used:** Three different AMI solutions were utilized: Power Line Carrier, RF Fixed Network Solution, and a hybrid solution (RF Page combined with the customer's telephone line).

**Evaluation Process and Responsible Parties/Experts:** An Executive Summary and Impact Assessment were conducted by Summit Blue Consulting. Customer surveys were

conducted through SRBI. Other analyses were conducted by PSE&G (technical, operations, rates and tariff, bill impacts).

### Results and/or Lessons Learned:

- "myPower" Pricing participants consistently lowered their energy use in response to price signals across two summers (peak demand reduction of 1.33 kW was observed for those with in-home technology, and 0.32 to 0.43 kW for those without in-home technology).
- During the summer there were daily reductions in energy use from 1:00 p.m. to 6:00 p.m. due to on-peak prices associated with the TOU rate.
- During CPP events, customers increased their load reductions during the 1:00 p.m. to 6:00 p.m. period.
- Participants achieved summer period energy savings of 3-4% when compared to the Control Group.
- Technology-enabled customers produced greater reductions in energy use in response to the TOU rates and the CPP events.
- The majority of participants achieved bill savings: 87% of those with in-home technology and 68% of those without in-home technology saved.
- "myPower Pricing" participants would recommend the program to a friend or relative, believe they saved money, believe the program is good for the environment and that PSE&G should offer more programs similar to myPower.

**Next Steps:** Key findings from the pilot program will be used to inform the PSE&G AMI business case.

## Residential Smart Metering Pilot – PowerCentsDC, PEPCO (updated Sept. 2008)

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**Description:** The District of Columbia Residential Smart Metering Pilot is designed to test three different types of dynamic pricing rates (hourly, CPP, and CP Rebate) coupled with smart thermostat controls. The program's official name is PowerCentsDC.

**Contact Information:** Chris King, eMeter Strategic Consulting, 510-435-5189

**Start / End Dates:** Billing began July 2008, and the duration will be approximately two years.

**Sponsor(s) and Contact Information:** The SmartMeter Pilot Program Inc. (SMPPPI) is a consortium formed under a PEPCO merger settlement agreement and includes PEPCO, DC OPC, DC PSC, DC CUB, and IBEW.

- DC Commissioner Rick Morgan serves as Chair of SMPPPI and can be reached at 202-626-5118
- PEPCO: Steve Sunderhau, 202-872-3507
- DC OPC: Laurence Daniels, 202-727-3071

**AMI Solution / Product Used:** AMDS/Sensus

**Evaluation Process and Responsible Parties/Experts:** The SMPPPI Board will select this.

**Results and/or Lessons Learned:** Pending

**Next Steps:** Start of billing and selection of evaluation contractor