



The Maryland Public Service Commission

Maryland Smart Grid Update MADRI

Calvin Timmerman

Assistant Executive Director

Maryland Public Service Commission

May 9, 2013

AMI Installations

- BGE
 - 1.2 million electric, 660,000 gas meters
 - Roughly 33% of installations completed, complete in 2014
- Pepco-MD
 - 550,000 electric meters in Maryland
 - Nearly finished, all must be complete by June 2013
- DPL-MD
 - 210,000 electric meters (no gas) in Maryland
 - Most recent approved. Installations underway, complete late 2013/early 2014
- SMECO
 - 160,000 electric meters
 - Still awaiting decision
- Projects cover 85% of all Maryland electric customers, 55% of gas customers

Dynamic Pricing Basics

- Peak event credit approach
 - BGE “Smart Energy Rewards”
 - PHI “Peak Energy Savings Credit”
 - No proposal for SMECO yet, likely TOU sometime later
- Peak event days
 - In most cases a peak event day declared for the following day
 - Multiple customer communications streams
 - Generally declared June – Sept.
 - Maximum hours are 12pm – 8pm, actual hours will usually be less and announced for each event
 - Will include PJM DR days, high LMP days and could include distribution problem days
- BGE all residential, PHI all residential and smaller commercial
- Current DLC program reductions approx. 700 MW, goal of additional 200+ MW with dynamic pricing

Dynamic Pricing – Show Me the Money

- \$1.25/kwh credit for usage reduction compared to hourly customer specific calculated baseline
 - Baseline calculates what usage minus reductions would have been on a comparable day
 - BGE baseline uses their pricing pilot approach, PHI baseline uses DC pricing pilot approach
- Cash flow similar to DLC programs
 - Peak load reductions monetized in PJM capacity and energy markets
 - PJM payments fund customer credits
 - True-up in annual distribution surcharge/credit
 - \$1.25 credit level will be kept reasonably stable over time, but might change based on PJM revenue or customer response

Peak Credit Advantages

- Coordinated with DLC programs
 - All load reduction benefit now in monthly peak reduction credit – fixed monthly DLC credit ends
 - If total of monthly reduction credits less than DLC credit (for example \$75 for BGE 75% cycling option), final credit in season makes up the difference
- Goal is for majority of customers to receive credits and majority of DLC customers to exceed DLC minimum
- Good transition to dynamic pricing
- No worse off than whatever customer is otherwise paying for energy
- No enrollment, opt-in or opt-out
 - AMI opt-out customers not eligible
- No change in standard offer procurement
- Retail supply neutral – except for customers who's supplier provides their own PJM based load reduction program

AMI Regulatory Decisions

- Cost recovery contingent on successful deployment and demonstrated cost effectiveness
 - SMECO proposes a surcharge, case awaiting decision
- Metrics mandated to monitor deployment, costs and benefits and customer engagement
- Customer education plans required
- Cyber Security plans required
- Metrics, education plans and cyber security plans developed/reviewed in work group made up of all parties to the smart grid proceedings
- Most work group plans and documents have been consensus of all parties and approved by Commission

Customer Education Plans

- Developed in Two Phases
 - Deployment “Phase 1” education addresses meter installation and general introduction to Smart Grid
 - Dynamic Pricing “Phase 2” education moves into peak event credits and other advanced features (such as outage detection and restoration) as they are implemented
- Phase 1 and 2 plans approved for BGE and Pepco, Phase 1 plan approved for DPL
 - DPL Phase 2 under development
- Work Group has informal review (with 3 day deadline) of all materials
- SMECO plan has been reviewed by work group, awaits Commission action on SMECO implementation
- Privacy policies included in plans – generally follow existing electric choice requirements for utilities providing info to 3rd parties

Cyber Security Plans

- Company specific AMI cyber security plans filed and heard
 - BGE plan and PHI plan (for both Pepco and DPL)
 - Plans apply to AMI, not utility wide operations
 - Work Group consensus support
- Commission oversight plan applicable to BGE and PHI filed and heard
 - Key feature is independent 3rd party consultant answerable to PSC to review all details of utility AMI cyber security activities and incidents
 - Work Group consensus support
- Awaiting Commission action

Cost/Benefit and Engagement Metrics

- 55 total metrics approved and reported on so far for IOUs (still working on another 10 or so metrics)
 - Broken into Phase I (Deployment), Phase II (dynamic pricing and advanced functionality such as outage detection)
- Many metrics have more than one reporting element
- Categories and number of metrics:
 - 5 Deployment progress metrics
 - 2 SG system cost metrics
 - 4 Metering related capital savings metrics
 - 7 Operational savings metrics
 - 13 Peak load reduction benefits metrics
 - 7 Meter/billing accuracy and reliability metrics
 - 17 Customer engagement/education metrics
- Reported quarterly

Resources

- All documents on Maryland PSC website:
 - www.psc.state.md.us
 - For all materials enter in case numbers in Case Search 9207 (Pepco and DPL), 9208 (BGE) and 9294 (SMECO)