



Smart Grid Symposium Villanova University

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Pennsylvania Public Utility Commission

Electric Generation Customer Choice and Competition Act



- In 1996, Pennsylvania's electric rates were significantly higher than the national average.
- Electric Competition Act went into effect 1/1/97.
- Gives customers direct access to alternative "electric generation suppliers" or "EGSs".
- Electric utilities became "electric distribution companies" or "EDCs".

Rate Caps in Exchange for Stranded Cost Recovery



- There would be a transition to full retail electric choice while EDCs recovered these costs (plus interest on unrecovered amounts) from customers.
- In return, while this recovery occurred, customers would enjoy caps on (initially) the EDC's Distribution & Transmission rates AND Generation rates if the customer chose not to receive electricity from an EGS.
- Stranded costs are listed as the CTC (competitive transition charge) on bills. That charge will go away when rate caps expire.

A Gap Has Formed and Must Be Bridged



- Without electric competition, EDCs would have filed regular rate increase requests with the PUC, and rates would have been incrementally increased to reflect increased generating fuel costs.
- Because of increased generation costs since 1997, wholesale electricity prices are now significantly higher than capped generation rates.
- This gap must be bridged when the EDC fully recovers its stranded costs, because generation rate caps expire then.

Rate Caps Have Expired for 15% of Pa. Customers



- Only 15 % of Pa. customers—small commercial and residential customers of Duquesne Light Co. (Pittsburgh), Penn Power Co. (western Pa. border), and four small electric utilities—have completed the transition to full electric choice, either because they sold their generation assets or fully recovered their stranded costs (so their caps expired).
- 39.6 % of customers as of Jan. 1, 2010
- Remaining customers of jurisdictional utilities as of Jan. 1, 2011

House Bill 20 Provisions



- Prepayment plans with voluntary participation (“opt-in”) and 6% interest.
- “Competitively neutral” phase-in plans lasting no more than 3 years (extendable an additional three years).
 - Voluntary participation by residential and commercial customers only.
 - No triggering % proposed increase like PUC’s suggested 25% or greater threshold.
- Three equal annual increases of no more than 15%.
- Deferred amounts recoverable but no provision for carrying charges (may be unconstitutional).

Act 129 of 2008 Highlights



- Act creates an Energy Efficiency & Conservation Program to be overseen by the PUC
- Requires Electric Distribution Companies (EDCs) with at least 100,000 customers to adopt & implement cost-effective energy efficiency & conservation plans to reduce energy demand & consumption
- Mandates reductions in retail electricity consumption
 - 1% by June 2011
 - 3% by June 2013
 - 4.5% reduction in “peak demand” in 100 highest annual peak consumption hours by June 2013

Smart Grid



- Uses automated readers, two-way communications and advanced sensors to improve electricity efficiency and reliability.
- Will provide consumers and utilities with tools to take better control of energy consumption
 - ex. Time of Use Pricing
- The PUC is moving forward on the concept of a smart grid as it implements Act 129.
- The PUC currently has a smart meter technology procurement and installation plan under review.

Smart Meters



- Each EDC must file plans to replace all of its meters over the next 15 years (or sooner upon an individual customer's request and payment of cost, and on all new construction).
- New meters must be capable of “bidirectional communication,” i.e., capable of allowing EDCs to measure usage on at least an hourly basis and to communicate consumption and energy price to the customer.
- EDCs must offer optional time-of-use and real time rates to all customers on a voluntary basis.

Smart Grid Concepts



- Deployment of automatic meter readers may be considered the first step
 - Utilities like PPL began a program years ago to make the switch to automatic meter readers
- Advanced metering provides better access to information
 - Help avoid blackouts
 - Reduce down times in the system

Conclusion



- PA's electric grid has served us well, but with an ever increasing thirst for power, we are pushing the limits.
- As it implements provisions of Act 129, Pennsylvania will continue to move forward with the concept of a smart grid.