



# Electricity Market in Pennsylvania

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Robert F. Young, Deputy Chief Counsel

H. Kirk House, Assistant Counsel

Shane Rooney, Energy Advisor to Commissioner Pizzingrilli

Eric Matheson, Energy Advisor to Vice Chairman Cawley



# Federal and Other State Initiatives

- Federal Energy Regulatory Commission opened the wholesale market to competition through its Order 888 process
- Large transmission organizations such as PJM Interconnection began to perfect market and accounting operations which enabled substantial power transactions within and between regional wholesale markets
- States such as California and Texas began investigating retail competition



# 1996 – Pennsylvania's Movement to Competition



- Pennsylvania's electric rates were above national average
- Large industrial customers were eager to obtain direct access to wholesale markets
- Wide rate disparity across the state
- Electric prices seen as a negative factor in Pennsylvania's economic development in comparison to neighboring states





# 1996 – Pennsylvania's Move to Competition



- As PJM improves the wholesale market functions, various Pennsylvania stakeholders begin exploring retail competition
- The Governor's Office, several key legislators, industry and consumer interests begin meeting on possible legislation



# 1996 Restructuring Act



- With input from industrial customers, residential customers and the Commission, the General Assembly adopts the 1996 Restructuring Act
- The Act is based on several findings, including that market competition will control electric costs better than regulation



# 1996 Act



- Safe and reliable electric service remains the top priority as Pennsylvania moves to competition
- Electric service will be “unbundled” into generation, transmission and distribution services. Only transmission and distribution rates will remain regulated
- All customer classes obtained direct access to the retail generation market based on a phase-in schedule
- Rates were capped at 1996 levels for a period of time





# 1996 Act



- Divestiture of generation plants by electric distribution companies is permitted, but not required
- Non-discriminatory availability of transmission and distribution plant is mandated
- Universal service policies must be maintained at the level in existence in 1996
- Electric companies are permitted to recover “stranded costs” which is the net present value of generation related costs which are deemed unrecoverable in a competitive environment, but which would have been recovered under regulation



# Restructuring Plans



- Each electric company was required to file a restructuring plan which established:
  - Unbundled prices
  - Stranded cost charges
  - Universal service cost recovery mechanisms
  - Interaction protocols for electric generation suppliers who wish to operate in the company's service territory





# Electric Distribution Company/Electric Generation Supplier Interaction



- Customer Information
- Electric Data Exchange
- Metering & Billing
- Customer transfers
- Electric Distribution Company Affiliates



# Implementation



- Avoid long, drawn-out litigation
- Develop open, responsive process
- Preference for market-based solutions over regulation-type governance
- Staff authority which provides that only the most serious and contentious issues move to the Commissioners for resolution



# Implementation



- PJM
- PJM
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  - At all times, the PJM RTO assisted the Commission in moving forward. Absent PJM's market structures and accounting functions, retail competition in Pennsylvania would have been quite different and far more difficult





# Market Participants



- Electric Generation Suppliers
- Utility Generation Affiliates
- Aggregators
- Transmission Providers
- Distribution Companies (utilities)
- Wholesale marketers
- Curtailment Service Providers
- Consultants
- PJM



# Grid Services



- EGSs formalize relationships with PJM and Utilities
- Balancing and delivery obligations are set forth in utility/supplier coordination tariffs
- Supplier Coordination Tariffs operate together with PJM operational rules
- PJM is ultimate backstop with under-delivery penalties falling on responsible provider – utility or EGS



# Grid Services



- EGS/utility providers must comply with all PJM operating requirements, including capacity and reserve requirements and ancillary services, to move power over PJM system
- EGSs have the option of providing their own scheduling services, transmission, capacity and various ancillary requirements, obtaining them through PJM or acquiring such services from wholesale providers





# EGS Services



- Most offer residential standard 24x7 full requirements product at a single rate set for a period of time
- Some EGSs offer “green” products and are expected to begin offering demand response/energy efficiency services in the near future
- Lack of advanced metering is viewed as a barrier to more innovative product offerings such as time of use
- Some industrial larger commercial loads have the opportunity to obtain time of use and interruptible service because of customer supplied metering capability



# HOW DID IT GO?



- Initial public reaction very positive
- Very broad and effective consumer education campaign
- Immediate rate reductions due to tax reductions
- Aggressive and creative marketing by Electric Generation Suppliers – the new competitors
- Generation plant efficiency improved significantly – competitive markets with relatively high prices rewarded efficient operators



# How Did it Go?



- Consumers experienced a carefully monitored market with no negative reliability impact
- Wholesale prices initially provided some head room for competitors to operate
- Some competitors willing to take early losses for customer acquisition
- Federal agency very supportive – some market players unsuccessfully attempted to drive a wedge between state and federal authorities





# Today



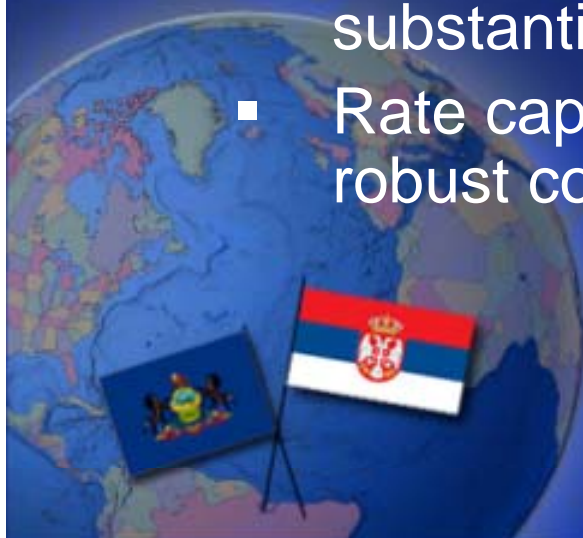
- Volatile wholesale market with rising prices has eliminated any head room under retail rate caps
- Very few marketers willing to enter the retail market while rate caps are in place
- Residential customers have not seen robust competition for over four years
- There are indications that competition is improving for industrial customers and large commercial operators, particularly in territories where rate caps have come off



# Did We do it Correctly?



- Very successful consumer education campaign covering all facets of media
- Residential consumers were very receptive to the concept
- Biggest winner – environmentally friendly energy sources
- Absent brand distinction (such as environment), substantial brand loyalty to utilities
- Rate caps + wholesale market volatility = less than robust competition



# Did We do it Correctly?



- Mixed results due largely to market forces at the wholesale level – no one predicted the substantial rise in wholesale costs
- Failure to accurately forecast “back office” and customer acquisition costs – these affected the ability of marketers to enter the market on a profitable basis
- No opportunity for a look-back at stranded costs – within a fairly short period, it became clear that stranded cost awards were over-stated





# Hindsight



- Rate caps had no meaningful adjustment for wholesale market correction
- Default service design can negatively impact competitive market
- Stranded costs could have been tied to utility market share – the Texas “clawback” provision
- Faster establishment of uniform and fair data interface and rules of the road for competitors
- Examine potential for all market participants to operate a wholesale cost adjustment mechanism
- Could have provided a continual and robust market review to identify and remedy ongoing barriers to competition



# Conclusion



- Existing rate caps continue to dampen competition
- Lack of advanced metering restricts the ability of competitors to offer new energy products such as time of use and hourly pricing
- Competitive markets do not affect reliability provided necessary operating rules are in place
- The ability to explore and adopt timely course corrections is crucial

