

**Before the Consumer Protection and Professional Licensure Committee  
Senate of Pennsylvania  
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**The Status of Electric Restructuring and Rate Caps**

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Chairman Tomlinson, Vice Chairman Corman, Senator Boscola, and Members of the Committee:

Thank you for this opportunity to appear before you today to discuss the status of electric restructuring in Pennsylvania, with emphasis on the expiration of the last rate caps in 2009-2010.

My testimony consists of (1) a brief description of the genesis of electric generation competition in Pennsylvania in 1996; (2) a look at unexpected events since then; (3) electric rate cap expirations to date in Pennsylvania and elsewhere; (4) possible strategies to mitigate price increases (should price increases be so great as to necessitate them); and (5) related default service mitigation strategies.

A. The Genesis of Electric Generation Competition in Pennsylvania

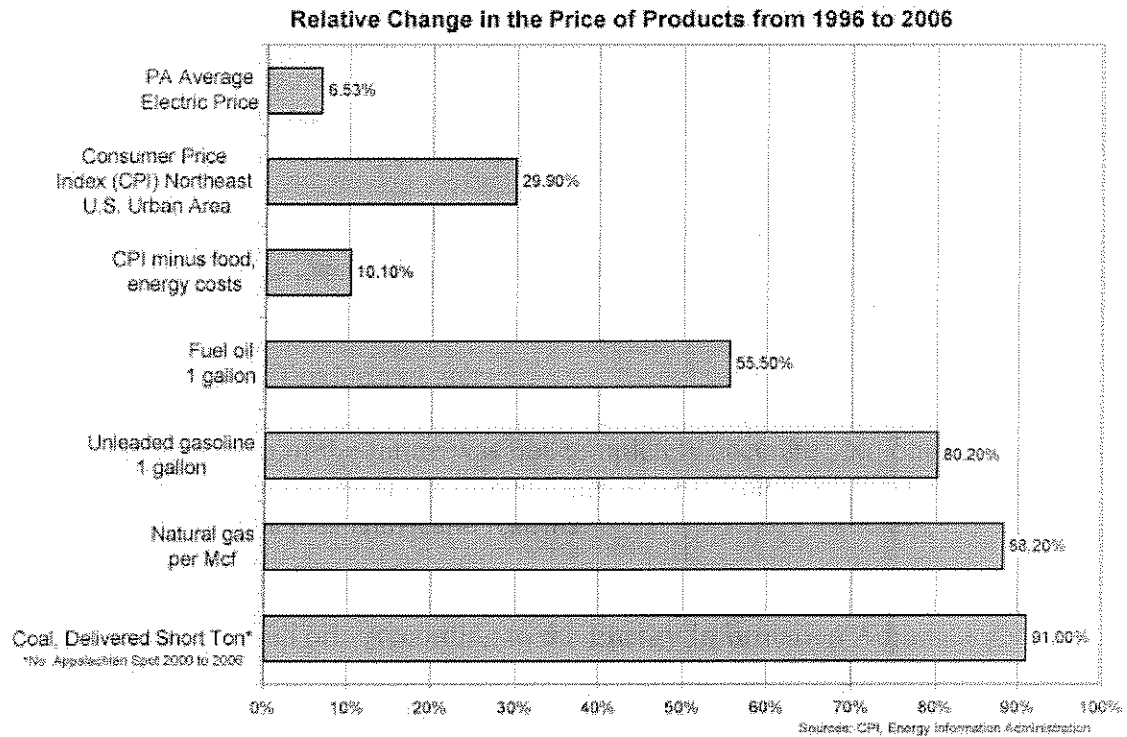
1. Following passage of the Federal Energy Policy Act of 1992 that moved wholesale power generation to competition, Pennsylvania passed the Energy Competition and Customer Choice Act in 1996.
  - a) This law ended the monopoly on building and operating power plants but continued transmission and distribution of electricity as a fully regulated public utility.
  - b) The purpose of the Act was (1) to allow customers to choose their energy supplier based on competitive prices (or product differentiation) and (2) to shift the risk of building new generation to investors rather than consumers under a regulated model.
  - c) It was anticipated that energy companies would have the incentive to maximize efficiency in their operations, with better designs and better performance.
  - d) The Act represented a change from the old cost-of-service (or "cost-plus," or "rate base/rate of return") model for generation to one based on competitive prices. In this way, generation would be built when and where needed, according to the laws of supply and demand.

2. As part of the transition to competitive power generation markets, consumers and utilities reached an agreement by which consumers promised, during a long transition period, to pay billions of dollars to utilities for their uneconomic investments (mainly hugely expensive nuclear plants) and for the costs of purchasing power from non-utility generators (“NUGs”).
3. In return for consumers promising to pay for these “stranded costs,” utilities promised to cap rates for both generation and combined transmission and distribution.
  - a) Each utility had its own agreement, and the amount of the stranded cost payments and the length of the rate caps varied by utility.
  - b) The five remaining companies under rate caps (with expiration dates) are: PPL Electric Utilities (Dec. 31, 2009); Metropolitan-Edison Company (Dec. 31, 2010); Pennsylvania Electric Co. (Dec. 31, 2010); PECO Energy Company (Dec. 31, 2010); and West Penn Power Company (Dec. 31, 2010).
4. The expectation was that customer rates would decrease after the transition period to reflect the end of stranded cost recovery and lower prices for electricity in the competitive market.
5. Utilities agreed to the rate caps because they either had power plants that produced electricity at costs that were less than the rate caps or they could enter into long-term power purchase agreements for power at less than the rate caps.
  - a) From 1999 until 2004, power in the PJM Interconnection wholesale market typically traded in the 3.0 to 4.5 cent per kWh range.
  - b) Under monopoly regulation in 1996, a typical residential customer or small business customer was paying more than 8 ¢/kWh to PECO Energy (now Exelon) or Duquesne Light just for generation (or 10 to 11 ¢/kWh in inflation-adjusted numbers). In other service territories, most small customers were paying about 5 to 6 ¢/kWh just for generation (or 6.5 to 7.5 ¢ in inflation-adjusted dollars).
6. In Pennsylvania, total electricity consumer savings since 1996 have exceeded \$6 billion (conservatively).
  - a) These savings were achieved by (1) rate cuts in the restructuring settlements in 1998; (2) the value of rate caps (vs. rate of inflation, or vs. rates reflecting substantially increased fuel costs); (3) shopping for lower rates from competitive suppliers.

- b) Duquesne Light residential customers have been the biggest winners, saving between \$200 and \$400 per year from 2002 through 2004, with electricity prices at 1981 levels.
- c) In 1996, Pennsylvania's electricity rates were 15% above the national average; as of October 2006, those rates are 3% below the national average.

**B. Unexpected Events: Ten Years Later**

- 1. But the vision of the future was not completely accurate. No one anticipated the current high market prices resulting, in part, from supply and fuel market disruptions such as Hurricane Katrina.
- 2. 70% of the nation's power is generated with ever more expensive coal, natural gas, and oil. According to the Energy Information Administration:



- 3. Pennsylvania at one time enjoyed nearly 100 electric generation suppliers competing in the state ( 25 of them actively), but, when wholesale electricity prices rose above the rate caps, all but a handful fled the market (you can't buy high and sell low).

4. Pennsylvania electric utilities:

a) Allegheny Power

- As part of its stranded cost review process, rate caps were extended through 2010 with gradually escalating generation prices.

b) Duquesne Light Company

- 11.5% increase in total bill for residential and small commercial customers in 2005 [15% below total rates in effect in 1996]
- Larger increases for large commercial and industrial customers [rates were set by a competitive bid process [RFP] for these customers segments (>300kW)].
- Note: Many large customer generation rates were previously much lower due to existing special negotiated rate agreements. Some rates were as low as 2.5 or 3 ¢/kWh. Rate increases for some large customers were particularly high due to these special circumstances.

c) UGI

- In 2006 POLR proceeding [Docket No. P-00062212], 59.4% system average increase in *generation* rates [not to the total rate], based on a 2007 system average generation rate of 8.981 ¢.
- All customers pay close to the same rate for generation services over time.
- Phase out of some declining block rates and demand-based generation billing components.

d) Pennsylvania Power (FirstEnergy)

- In 2006, first generation increase since 1992.
- Commission approved a wholesale competitive bid process for full requirements default service supply. New rates took effect January 1, 2007. [Docket No. P-00052188]

- Percentage increases:
  - Residential, non-heating – 33%
  - Residential, heating – 30%
  - Small commercial – 2.4% - 3.4%
  - Large industrial – 50% - 61%
- When inflation-adjusted, residential and commercial rates are lower or equal to Penn Power's rates in 1996. The greatest impact was on a few industrial customers that previously enjoyed rates of approximately 3¢/kWh under special contracts.

e) Pike County Light & Power Company: *an aberration and a wake-up call.*

- Initially held a *one-day* wholesale auction for default service supply in October 2005 at the height of the spike in natural gas prices.
- Wholesale auction results: Average residential customer total bill increase of 73% (resulting from a 129% increase in the generation rate, from 6.3¢ to 14.4¢/kWh).
- Extraordinary rate increase likely caused by a number of coincident and unique circumstances: (1) Pike is not a member of PJM, but a member of NYISO in a highly generation constrained area, (2) timing of auction – after 2005 hurricanes that drove up generation commodity prices, (3) small load (approximately 16 MW) that resulted in only two bidders participating in the POLR auction, (4) small number of customers (4,400), and no EGSs were serving the service territory.
- An EGS (Direct Energy) filed an Emergency Petition on March 10, 2006 to implement a retail opt-out aggregation order in an effort to provide immediate relief to Pike County residents. [Docket No. P-00062205]
- By Commission Order on April 20, 2006, the Commission gave final approval to a competitive bid process to implement a retail opt-out aggregation program. The opt-out program included all customers, except the approximately 8 largest primary service customers.

- Direct Energy won the retail aggregation bid on April 28, 2006, resulting in an 8.2% decrease (from the 73% increase) for the average residential customer.

5. Electric utilities in other jurisdictions:

a) **Maryland:**

Allegheny Power

- (Still under rate caps)

Baltimore Gas & Electric Company

- 72% increase in the average residential price, effective July 1, 2006 (based on 1991 base year minus 6%).
- Phase in Plan: 2-year mitigation plan for residential customers; Opt-out program; rates increase 21% from June 1, 2006 to February 28, 2007 [credits go toward the distribution portion of the bill to preserve the true price signals with regard to energy costs]. Starting on March 1, 2007, participating customers start paying a distribution surcharge to pay back the deferrals plus 5% interest.
- Price to Compare: 11.026 cents/kWh for the average non-heating residential customer; 10.494 for the average small (GS) commercial customer; 11.009 cents/kWh for the average small (G) commercial customer; 10.74 cents/kWh for the average medium (GLP-IIB) customer.

Delmarva Power Company

- 35% increase in average residential price effective June 1, 2006. Small commercial customer average increase of 40%. Average medium commercial customer bill increase of 14%.
- Phase in Plan: Opt-in program; residential customers only; One year phase in of prices - 15% increase June 1, 2006, 15.7% increase March 1, 2007, residual amount June 1, 2007. Payback period: 18 months starting June 1, 2007 [average deferral of \$240, amortized over 18 months – no interest was charged on deferral]. Only 1% of customers opted in.
- Price to compare: 10.18 cents/kWh for the average non-heating residential customer.

## Pepco

- 39% increase in the average residential price effective June 1, 2006.
- Phase in Plan: Opt-in program; residential customers only; One year phase in of prices - 15% increase June 1, 2006, 15.7% increase March 1, 2007, residual amount June 1, 2007. Payback period: 18 months starting June 1, 2007 [average deferral of \$212, amortized over 18 months – no interest was charged on deferral]. Only 2% opted in.
- Price to Compare: 10.08 cents/kWh for the average non-heating residential customer. 11.7 cents/kWh for small (GS) commercial customers.

### b) **Delaware** (Delmarva Power & Light Company)

- 59% increase in total bill for average residential customer; 47% to 68% increase in small commercial and medium-sized commercial customers effective May 1, 2006.
- Phase in plan: Opt-out program; 15% increase starting May 1, 2006; 25% increase on January 1, 2007, and 17% increase on June 1, 2007 [for typical non-heating residential customer]. Payback period: 17 months, starting January 1, 2008 [\$415, in \$24 monthly installments – no interest was charged on the deferral.] About half of the 280,000 customers opted out of the deferral program.
- Price to compare: 11.3 cents/kWh for typical non-heating residential customer; 10.79 cents/kWh for a typical small commercial (SGS) customer.

### c) **Illinois** (Commonwealth Edison)

- After nine-year rate freeze, competitive auction held for statewide 2007 supply (21 bidders, 14 won shares of ComEd's supply requirements of over 18,000 MW).
- 22% rate increase (inflation-adjusted: 3% below 1997 price level). E.g., residential bill of \$60 will increase about \$13.20/month.

C. So, Is This the End of Electric Restructuring?

1. Some commentators have used these rate increases as an opportunity to declare that restructuring of the electric utility industry has been a failure and to suggest a return to full regulation.
2. These rate increases are a short-term transition issue. Over the long-term, I believe electric competition will deliver on its dual promises of *lower prices to customers and more choices* for those customers.
3. The essential fact is this: **In the seven largest electric service territories in Pennsylvania, with the exception of large industrial customers who have enjoyed subsidized rates, inflation-adjusted rates for commercial and residential customers are lower than they were in 1996 when electric restructuring began.**
4. **In fact, the same—or greater—rate increases would have occurred under rate base/rate of return (“cost-plus”) regulation, without the billions of dollars of savings that have been achieved under electric restructuring, and without the efficiencies in generation plant construction and operation that have been achieved since 1996.**

D. Strategies Going Forward to Mitigate Price Increases (If Necessary): Some Alternatives

1. Allow 100% pass through (primarily of fuel costs)
  - a) Benefits: full cost recovery by utilities.
  - b) Drawbacks:
    - Exposes consumers to immediate price shock
    - Likely legislative reaction could lead to less than optimal short term and long term outcomes
    - Potentially, would place stress on efficiency and demand side service providers (the correct price signals would be sent to customers, but these providers would be swamped with requests for installations).
    - Would create great need for substantial increases in low-income funding levels

2. Arbitrarily extend rate caps
  - a) Benefits: reduction of rate shock to consumers.
  - b) Drawbacks:
    - Potential negative effect on the financial health of utilities
    - Just postponing the inevitable return to reality
    - Continued pricing of electricity at average cost, so lack of incentives to reduce energy usage (correct price signals NOT sent to customers)
    - More of what we already have—profligate use of electricity and little conservation
  
3. Cost deferral (Mandatory or optional Opt-in and Opt-out)
  - a) Benefits: reduced rate shock to customers by smoothing the transition from rate caps to market prices
  - b) Drawbacks:
    - “Pay me now or pay me more later”
    - Adverse cash flow impact on utilities (increased risk of under-recovery or non-recovery of costs, resulting in adverse credit ratings and increased borrowing costs, ultimately reflected in rates to customers)
    - Consumers will bear the burden of future generation costs and debt payback at some point in the future
    - Lack of immediate incentives to reduce energy usage
    - *Cumulative* adverse impact on future customer rates if market prices continue to increase

4. Early Acquisition of Supply by EDC POLR Provider (e.g., over three or more years) – “Portfolio Mix Approach”
  - a) Benefits: should moderate volatility in market prices
  - b) Drawbacks:
    - If NJ is any example, no lower prices, no added choices for customers (i.e., if done, it must be done in a manner that does not discourage or prevent competitive suppliers from entering the marketplace)
  
5. “Revenue Banking” or “Christmas Club” or “Pre-Payment Approach” (Mandatory or optional Opt-in and Opt-out):
  - a) Description: During the rate cap period, utilities could charge customers a surcharge for the purpose of offsetting future generation price increases. Some funds could also be used for education, efficiency, or demand side programs in preparation for higher rates.
  - b) Benefits:
    - Dampens price shock up front – consumers (especially residential and small commercial consumers), who often are slower to initially respond to price signals, would have time to invest in energy efficiency and demand side programs
    - Utilities avoid negative financial hit(s)
    - Providers of efficiency and demand side services would have more time to engage consumers
    - Potential to decrease long term energy prices by reducing demand.
  - c) Drawbacks:
    - Consumers exposed to higher prices sooner
    - Is it appropriate to ask customers to pay in advance for future electric supplies?
    - Prepayments might be considered a violation of the generation rate caps

## E. Related Default Service Mitigation Strategies

1. Education, Education, Education!
  - a) Consumers must be given adequate and timely information regarding future rate increases, efficiency programs, demand management programs, retail choice alternatives, etc.
  - b) Initial issue: how should education programs be funded, and in what amounts?
2. Conservation, Conservation, Conservation!
  - a) Customers must be encouraged to conserve electricity and to use electricity more efficiently, which may yield a two-fold benefit: lowering the price of electricity in the market and lowering an individual customer's bill as that customer's use declines
  - b) Customers must be encouraged to reduce their peak demand for electricity, because the average price of electricity can be disproportionately affected by prices during a small number of peak demand periods
    - Small changes in peak demand lead to large changes in prices—a 1% reduction in peak demand will reduce prices by 10% within the PJM power pool
  - c) Sales tax exemptions and rebates for energy-saving appliances? Tax credits for investments in alternative energy projects?
  - d) Advanced Meter Infrastructure ("AMI")
    - Modern meters that record the usage at particular times of the day must be installed in all businesses and homes
    - Using these meters, customers should be paid market rates to voluntarily reduce electricity use during peak times
    - Consumers will need more timely and accurate usage information in order to respond to changes in rate designs and market pricing signals
    - The technology exists to provide this information, but vendors must have access to customer usage data, raising the need for resolution of privacy issues and ways to encourage utility cooperation

- Implementation will empower customers with the knowledge and means to modify their behavior beneficially.
  - Prices must be changed to reward those who conserve and penalize those who do not (possibly exempting low income customers and those with health problems).
- e) Rate design changes should be encouraged (seasonal pricing, TOU pricing [on-peak, off-peak, critical-peak, and hourly pricing])
- f) Demand or fixed pricing structures, declining block pricing, should be discouraged
3. Revenue Decoupling
- a) Description: A ratemaking and regulatory tool designed to break the link between a utility's earnings and the energy consumption of its customers
- b) It removes the inherent disincentive that a utility has under traditional ratemaking to promote conservation
- In its July 2004 Resolution on Gas and Electric Efficiency, NARUC endorsed revenue decoupling as a ratemaking concept that provides earnings stability for utilities and removes the disincentives for promoting energy conservation
- c) Basic approach: define a target for the utility's non-commodity revenues, and place over- and under-collections to the target in a deferred account for recovery in a subsequent period
- d) Under a decoupling mechanism, the utility cannot increase its earnings by increasing its sales volumes because additional margin revenues are refunded to customers
- e) Recent decoupling trends such as "Revenue per Customer Decoupling" may offer more optimal methods of providing revenue sufficiency to utilities, while providing strong incentives to consumers to be more efficient in their usage. [Examples: MD – BGE (Gas); Washington Gas; OR – Northwest Natural Gas, CA – Socal Edison; NJ – New Jersey Natural Gas proposal]

F. Need to Address Low-Income Customer Assistance Programs

1. Any transition to market-based pricing must include a review of programs for assistance to low-income customers who are the least able to afford increased costs of energy but, frequently, are not in a position to take advantage of sophisticated mechanisms to control use and/or costs.
2. While recognizing that the cost of these programs must be paid by other customers, we should ensure that low-income customers retain adequate protection as we move into a fully competitive market.

G. Conclusion

1. The performance of the wholesale market largely sets retail prices. In turn, the wholesale market will be affected by the price of fossil fuels, regulatory policy on capacity, the effectiveness of market monitoring, consumer demand response, and the advance of technologies like distributed generation and renewable energy. The Federal Energy Regulatory Commission (FERC), not the PaPUC, regulates the wholesale market.
2. Transitioning from cost-plus regulation to market-based prices is an evolutionary process. With hard work, we can successfully manage through the end of the transitional period and continue down the road toward a fully competitive electric market—without resorting to short-term fixes that will hurt, rather than help, consumers.
3. So far, but not without bumps in the road, the transition is proceeding successfully.
4. The Commission will soon put in place default service regulations and, in case they are needed (which is far from certain), rate mitigation procedures.