

BEFORE THE SENATE OF PENNSYLVANIA
CONSUMER PROTECTION and PROFESSIONAL
LICENSURE COMMITTEE

Testimony of

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Regarding

The Impact of Deregulating the Electric Utility Industry
on Manufacturing Jobs in Pennsylvania

April 13, 2010

Chairman Tomlinson, Chairman Boscola and Members of the Committee:

Thank you for the invitation to appear before you this morning. My name is David Ciarlone and I am Manager, Global Energy for Alcoa Inc., where I am responsible for the procurement and management of all of Alcoa's natural gas and non-smelting electricity requirements in North America. This morning I appear in my capacity as Vice President of the Industrial Energy Consumers of Pennsylvania or (IECPA), whose members include 23 large industrials collectively employing over 43,000 Pennsylvanians.

From the outset, we should be clear about two things:

First, manufacturing jobs are the engine that drives the American economy. Manufacturing jobs are how the 'Greatest Generation', their younger, Korean era 'Silent' siblings and many of their 'Boomer' children paid for houses, enjoyed vacations, educated their children and built their retirements. The odds are that many of us in this room this morning worked our way through college with summer jobs in various mills across the Commonwealth. Despite all of this, however, this sector of our economy, in Pennsylvania as well as nationally, has been in long-term decline for several years. Many believe we are in crisis.

Second, by allowing rate caps to expire, without mitigating the consequences, we expose Pennsylvania's relatively few remaining industrial employers to RTO electricity pricing. By doing nothing, we increase the likelihood that manufacturing jobs in Pennsylvania will continue to disappear.

It would be constructive to define some terms. By "RTO electricity pricing" or "RTO pricing", we mean the administrative mechanisms that determine the wholesale electricity prices in the "Regional Transmission Organizations" (RTOs) regulated by the Federal Energy Regulatory Commission

(FERC), such as PJM. As others have explained, wholesale prices in PJM, as in other RTO's, are designed to maximize revenues to electric generators. In PJM, the wholesale price for all electricity sold at any time is set at the single clearing price, or Locational Marginal Price (LMP), which is the **highest price** successfully bid by any of the generators. For example, if PJM required 10 units of electricity at a given time, and the generators bid:

- 3 units at a very low nuclear-based price:
- 6 units at a low coal-based price; and
- 1 unit at the high cost of an inefficient natural gas generator,

the price for each of the 10 units sold to satisfy this requirement is set at the highest of all of the prices bid for any of the 10 units that “cleared the market” to fill the requirement – i.e. all 10 units are sold at the price of the inefficient natural gas generator.

As might be imagined, such a counter-intuitive mechanism creates a number of distortions in the “market”. For example, while the fleet of low-cost nuclear plants produced 34% of the electricity generated in PJM in 2007, these units set the clearing price or LMP 0% of the time. In contrast, while the much more expensive natural gas units accounted for only 8% of PJM's power production in 2007, these higher-cost units set the price 24% of the time. In this way, RTO pricing denies customers the benefit of low-cost generation.

Even more curiously, examination of one company's 10K statements shows that while generators were claiming higher natural gas prices as a rationale for needing higher electricity prices, the real result was actually a higher margin. In retrospect, it is easy to see the margin one could capture by selling electricity generated by lower-cost nuclear units at prices determined by high-cost natural gas units.

In fairness, these RTO and LMP mechanisms were once rooted in a worthy purpose. If generators only ever realized the marginal cost of production, there would never be funds available for reinvestment into the next set of generating units. Initially, the intention was to use the LMP mechanism only for the relatively small percentage of electricity sold into the spot market to “balance” the minor daily mismatches between demand and the supply secured through long-term contracts. However, as RTOs and their rules evolved, this LMP mechanism now sets the price for practically all electricity generated and sold in PJM.

RTO pricing is not conducive to a manufacturing enterprise. In order to justify the long-term commitments to people and equipment needed to sustain a manufacturing business, electricity prices must be affordable, stable and predictable. Within the context of global competition, “affordable” must be benchmarked to the electricity prices paid by key competitors in other states and in other countries. “Stable” means that prices are not subject to high price volatility. While “predictable” means that one could be reasonably confident in the price forecasts needed to create a long-term business plan. RTO pricing fails each of these tests.

In September 2008, the United States General Accountability Office (US GAO) published a study examining the results of electricity deregulation¹. Among the findings of this study were that the retail rates in RTO states tend to be higher than the retail rates in other states (Figure 1), and that, over the past several years, inflation-adjusted, retail electricity rates for industrial customers tended to increase faster in RTO states than comparable rates in other states (Figure 2).

¹ US GAO Report to the Committee on Homeland Security and Governmental Affairs, U.S. Senate ELECTRICITY RESTRUCTURING – FERC Could Take Additional Steps to Analyze Regional Transmission Organizations’ Benefits and Performance (Washington, DC September 2008)

The implications that one might infer from these tendencies is that RTO pricing is actually harmful to manufacturing jobs. As expected, Figure 3 shows how RTO pricing relates to manufacturing employment. This chart was prepared using statewide employment data collected and published by the United States Bureau of Labor Statistics and the state groupings established in the US GAO report. This perspective indicates that states with RTO pricing lost a larger percentage of their manufacturing jobs, and at a faster rate than other states.

Within Pennsylvania, some look to the expiration of the state's rate caps and claim that deregulation has been a success because of the number of customers engaged in shopping. This simply misses the point. Shopping is not the goal. Shopping cannot guarantee that prices will be affordable, stable or predictable. Figure 4 shows how rate cap expiration affected a typical industrial customer in the PPL territory. After exhausting all other alternatives, this customer obtained a supply contract through a competitive bidding process. While this customer did engage in shopping, no one would deem a 72% price increase a success.

IECPA members in PPL's territory report that their electricity supply costs will increase by at least 50 to 80 percent. Of even more concern is the absence of any structural safeguards to mitigate further price increases when energy commodity prices are no longer depressed by a severe global recession.

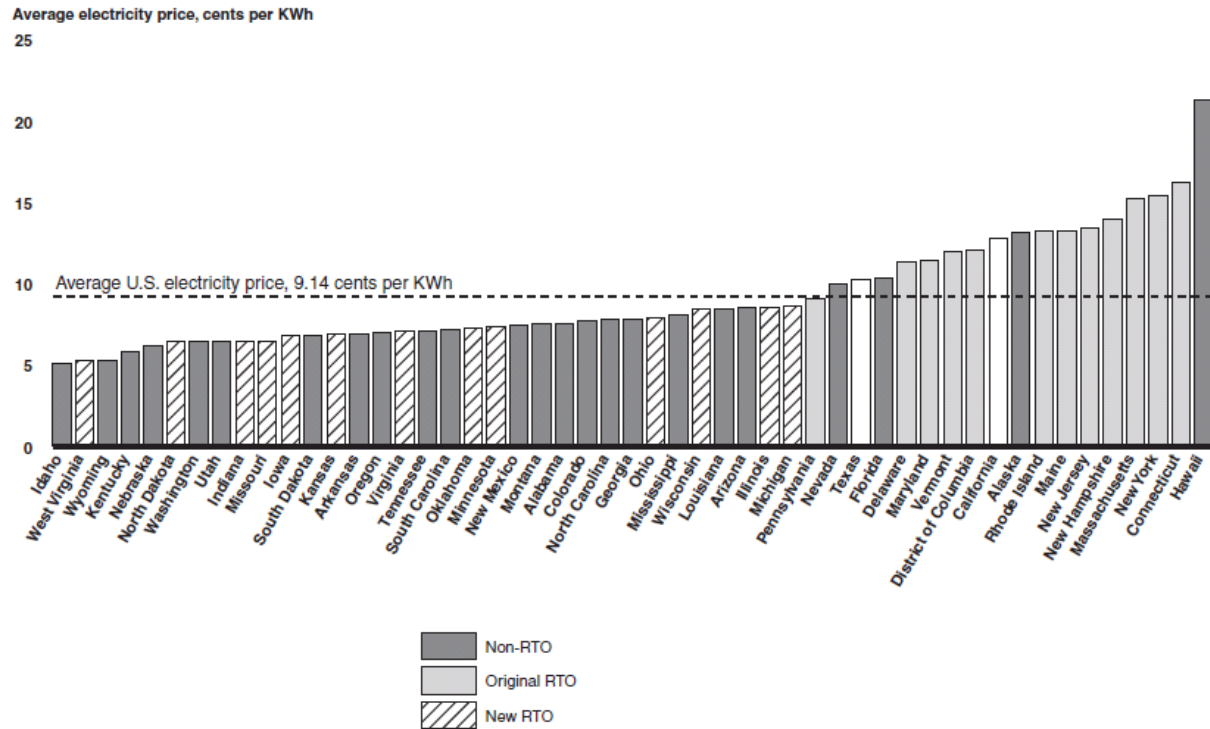
Figure 5 shows how expiration of Pennsylvania's rate caps and exposure to RTO pricing puts Pennsylvania manufacturing at a competitive disadvantage compared to other states. Figure 5 compares the electricity rates for the customer in Figure 4 to the electricity rates paid by its key competitors both before and after the expiration of rate caps. Prior to expiration of the rate

caps, the Pennsylvania manufacturer was conceding 10% to 20% discounts on electricity rates to its non-Pennsylvania competition. However, after expiration of the rate caps, the non-Pennsylvania manufacturers were paying rates that were only 53% to 63% of the rates paid by the Pennsylvania manufacturer. Pennsylvania cannot expect to sustain a manufacturing base by conceding this kind of competitive advantage to other states.

US Manufacturing jobs are in crisis and high, volatile and unpredictable electricity prices, rooted in a misdirected wholesale pricing mechanism, are among the strongest, yet least noticed drivers. While different remedies are available at the federal level, this problem has fallen into a regulatory gap. FERC does not focus on manufacturing jobs, and US Manufacturing policy is not concerned with the intricacies of electricity regulation. The fact remains, that if we are going to rebuild the US Manufacturing base, one of our first tasks is closing this regulatory gap.

More urgently for Pennsylvania, however, is doing what we can at the state level to protect our industrial sector from falling into this gap in the first place. It is our hope that this testimony highlights the real risks of doing nothing as it underscores the fact that doing nothing is an option that we simply cannot afford.

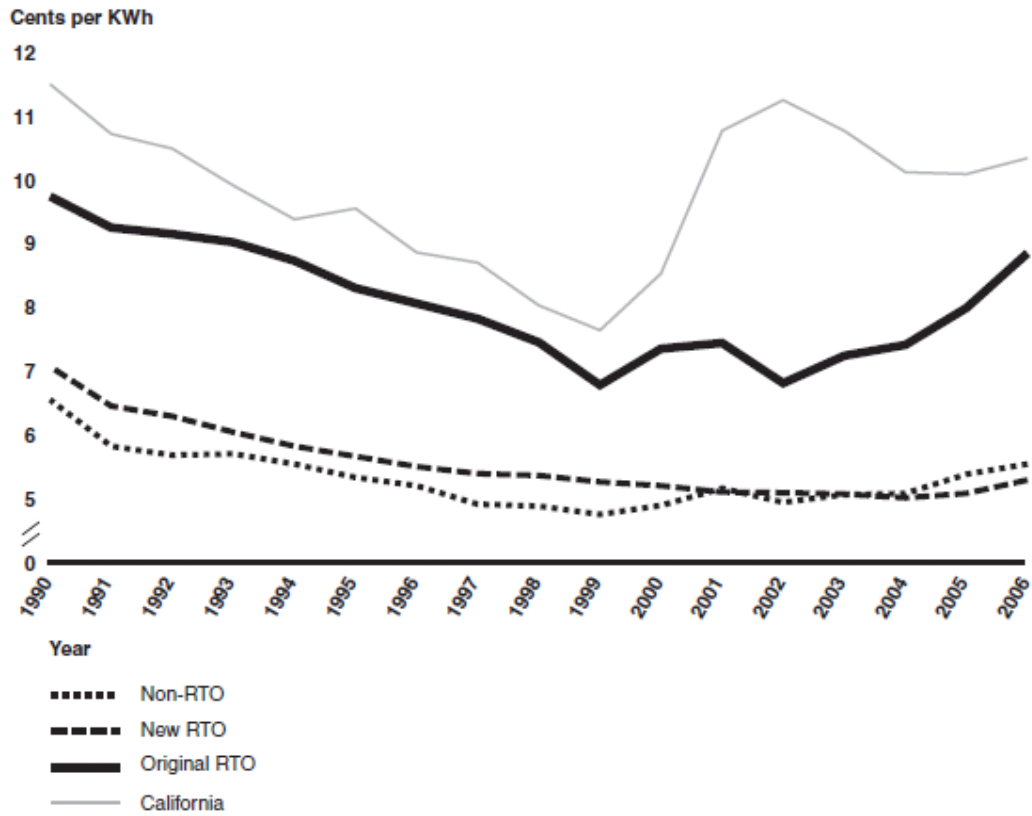
Figure 9: Retail Electricity Prices by State, 2007



Source: GAO analysis of Energy Information Administration data on estimated 2007 retail electricity prices.

Figure 1

Figure 10: Change in Inflation-Adjusted Retail Electricity Prices for Industrial Consumers, 1990-2006



Source: GAO analysis of Energy Information Administration data.

Figure 2

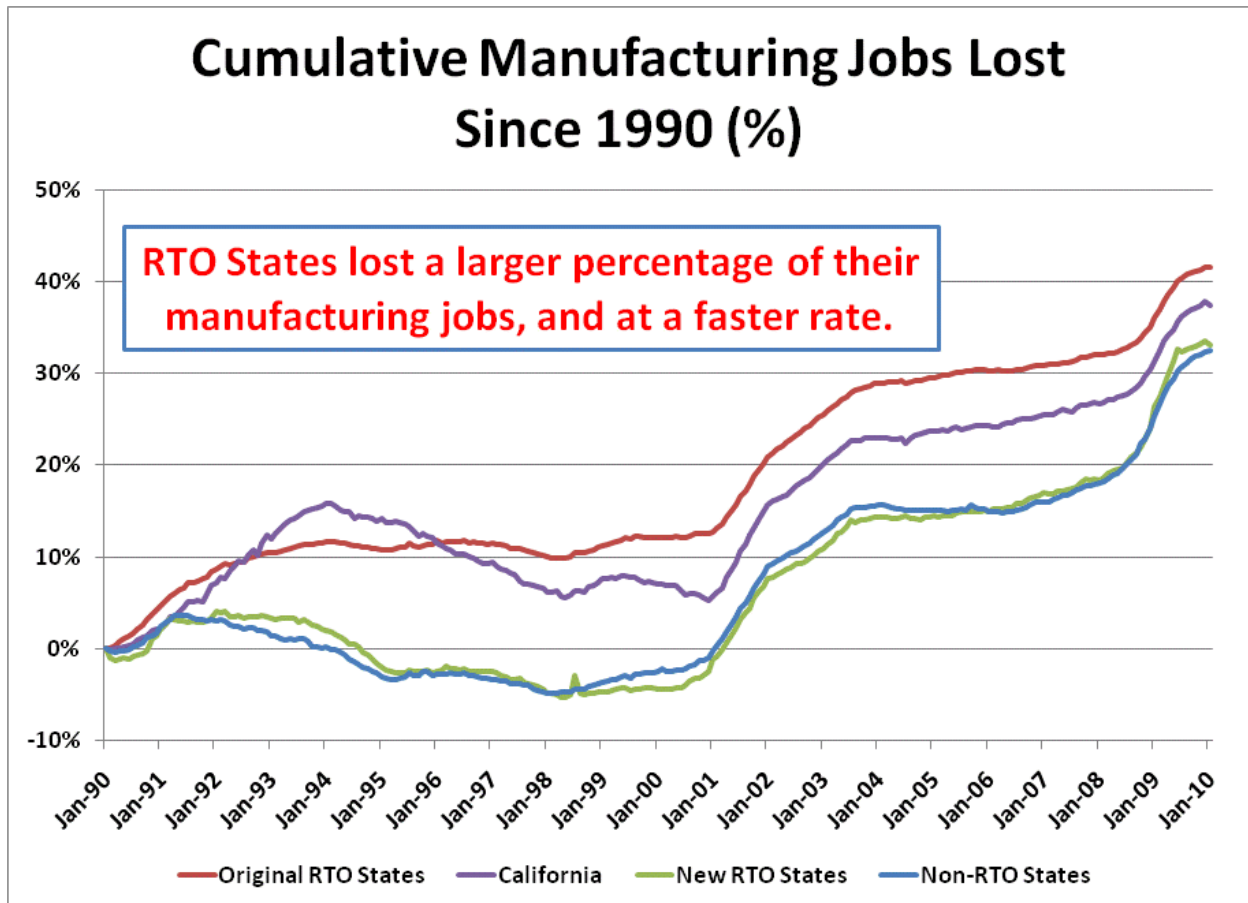


Figure 3

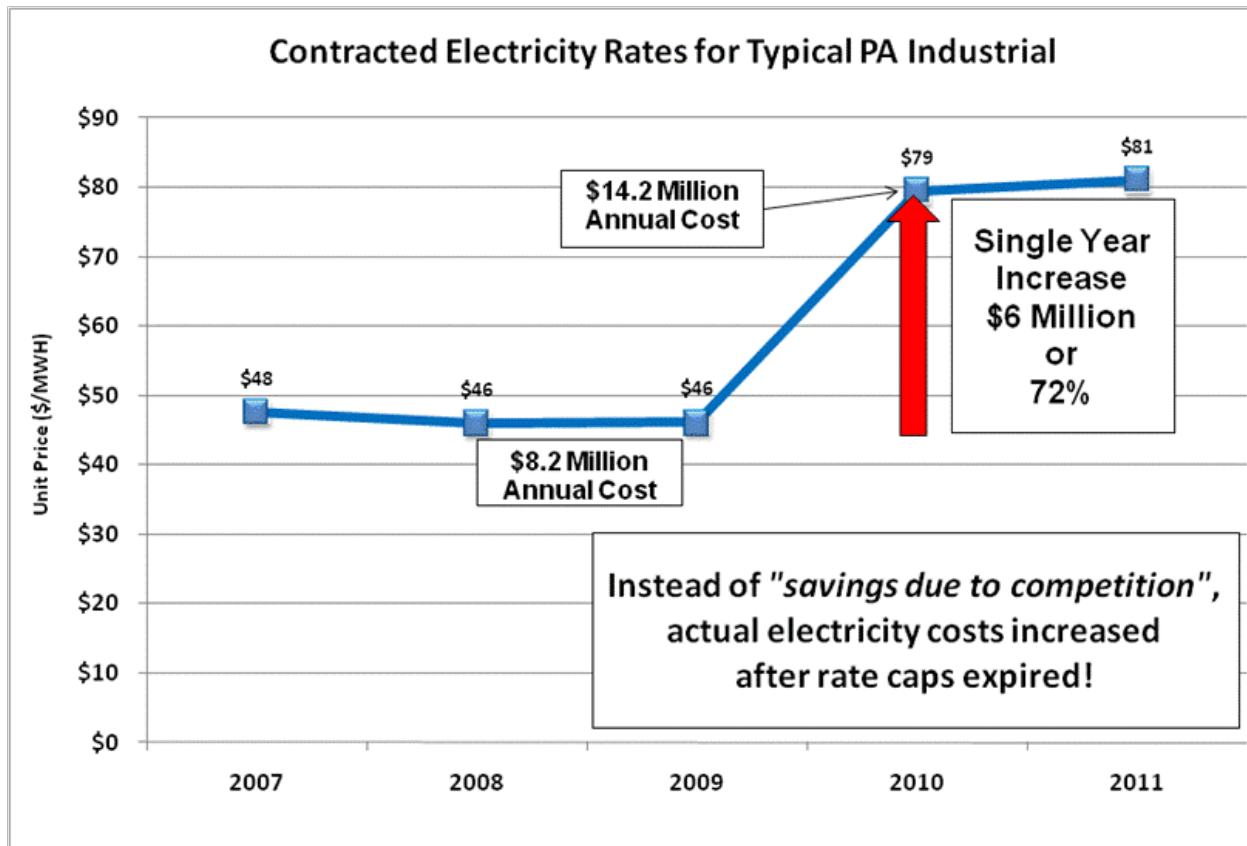


Figure 4

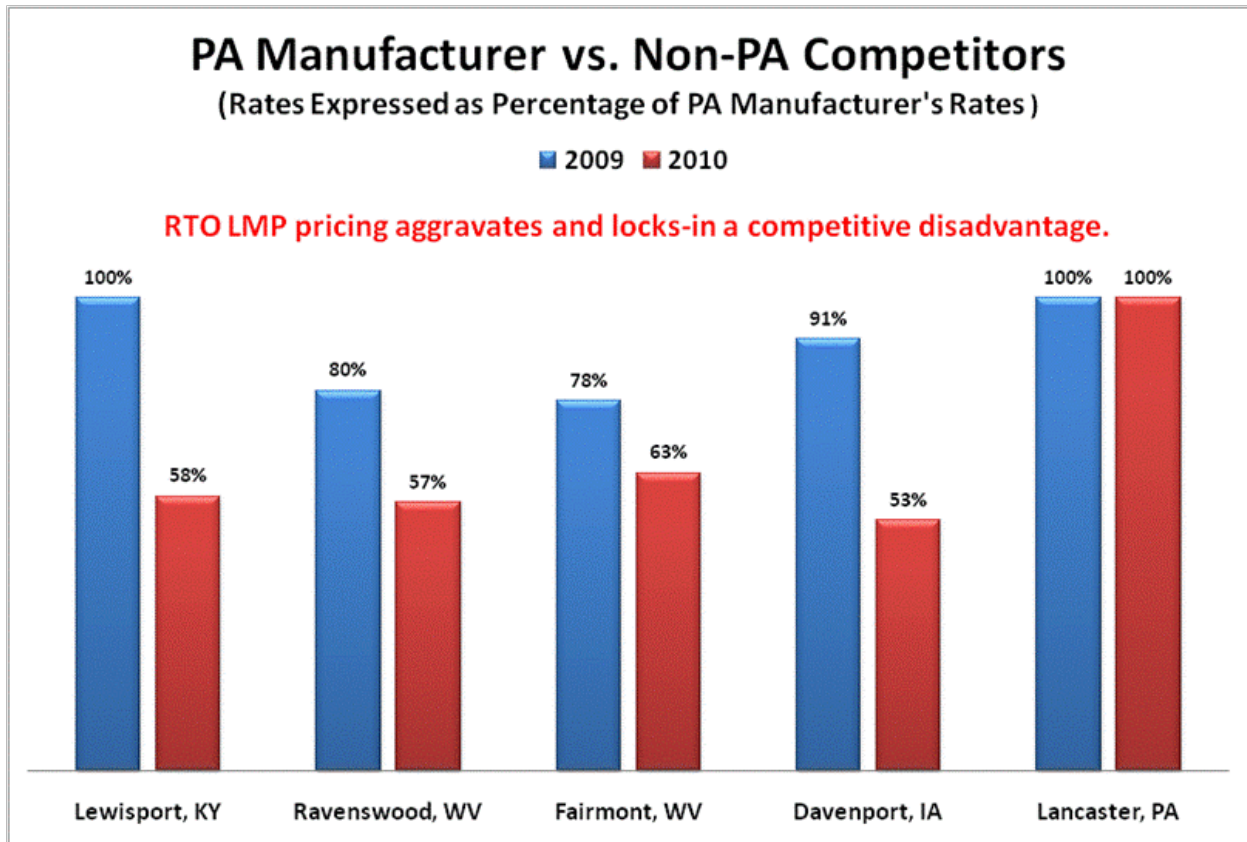


Figure 5