

**PENNSYLVANIA HOUSE OF REPRESENTATIVES  
CONSUMER AFFAIRS COMMITTEE**

**INFORMATIONAL MEETING ON THE STATUS OF  
COMPETITIVE ENERGY MARKETS  
IN PENNSYLVANIA**

**AUGUST 2, 2011**

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Testimony by IECPA  
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Chairman Godshall, Chairman Preston and Members of the Consumer Affairs Committee:

Thank you for the invitation to appear before you today. 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 afternoon I appear in my capacity as Vice President of the Industrial Energy Consumers of Pennsylvania (or IECPA), whose members include 21 large industrials collectively employing over 45,000 Pennsylvanians.

IECPA appreciates this opportunity to candidly and sincerely share our views on the status of competitive energy markets in Pennsylvania. We applaud this committee for scheduling oversight hearings as a "state of the state" review on Pennsylvania's energy policy and for inviting representatives of the natural gas and electric companies and others testify. It is important to hear timely updates from our energy suppliers. By the same token, we, as representatives of the largest users of natural gas and electricity, appreciate the opportunity to share our views.

With respect to natural gas, IECPA continues to assert that natural gas companies, under the jurisdiction of the PA PUC, must prove that rate increases for their regulated delivery services are necessary.

As for electricity, and particularly the testimony heard by this Committee in February, it appears that most comments dealt with the status of retail electricity rates resulting from Pennsylvania's 1996 Choice Act. Hence, my comments today will focus on our grave concerns on how these policies are damaging manufacturing employers in Pennsylvania.

From the outset, we should be clear about two things. Manufacturing jobs are the engine that drives the American economy, and they can and should be the foundation for a prosperous future in Pennsylvania. Manufacturing jobs are how the 'Greatest Generation', 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 today worked our way through college with summer jobs in various factories and 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. We need to urgently engage in the work of rebuilding and supporting our state's manufacturing sector.

**Foundation Principles of Prosperity Energy Pricing – What Manufacturers Need**

Mr. Chairman, I invite you to imagine a prosperous United States and a prosperous Pennsylvania. In this vision, we would see balanced state budgets, with the Administration and the General Assembly being free to manage the opportunities of surplus instead of the problems of scarcity. In this vision, we would see a manufacturing

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sector at full employment, supporting a thriving middle class. In this vision, which is our vision, energy pricing policy is characterized by five foundation principles. These five foundation principles are: **affordability**; **stability**; **predictability**; **reliability** and **sustainability**. Please allow me to define how we use these terms.

The first three: affordability, stability and predictability concern the costs that manufacturers pay in a prosperous state.

- “**Affordability**” means that the price compares favorably to the price being paid by our competition and our own plants in other states, as well as in other countries. After all, in the global markets in which we compete, it is not good enough to have energy prices more attractive than those we could obtain in Alabama or Iowa, but in China and India as well.
- “**Stability**” means that the price is not subject to the kind of volatility that causes large increases and decreases in our monthly or quarterly results. Our stakeholders on Wall Street or elsewhere punish results like that. One way or the other, we need the means to smooth the pattern of our affordable prices.
- “**Predictability**” means that we are able to understand the rules that determine price well enough to confidently prepare the 3-year, 5-year, 10-year or longer-term business plans that enable us to undertake large, long-term investments in the land, plant and people required to maintain and grow our businesses.

The remaining two foundation principles, reliability and sustainability, refer not only to conditions that we need to prosper, but also capture the responsibilities we recognize that we manufacturers must bear in a prosperous state.

- “**Reliability**” represents not only our need for energy that is available 100% of the time when we need it, but it also represents our recognition of our responsibility to pay our fair share of the prudent investments that the utility must make in systems, equipment and people required to provide this service, as determined in base rate proceedings by the Public Utility Commission.
- “**Sustainability**” means that we are generating, using and paying for energy in a manner that ensures our ability to continue to do so far into the future. This not only includes our responsibility for good stewardship of the environment, but also our responsibility for good stewardship of our utility companies. We know that we cannot afford to give our utility companies too much, and we cannot afford to give them too little. Our investments in Pennsylvania represent long-term commitments to this economy. We have planted our roots, and we are doing our best to ensure our investments bear fruit.

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**What Pennsylvania's Manufacturers Got Instead**

Unfortunately, Mr Chairman, instead of energy pricing that conforms to these principles and encourages the retention and growth of manufacturing jobs, Pennsylvania's present electricity pricing policies compound the challenges already confronting the state's industrial employers.

With the "full flourishing" of the "competitive market", as some would call it, electricity rates for manufacturers have not only increased dramatically (Figure 1), they are now exposed to extreme volatility (Figure 2). The combination of these two, if not corrected soon will be devastating.

We do not need to confine our view to Pennsylvania. These electricity pricing policies have had the same harmful impact wherever they have been tried. In its September 2008 report, the United States Government Accountability Office (US GAO) Study<sup>1</sup> offered several findings and conclusions on the various efforts to restructure electricity markets since 1992. Among the most notable, the US GAO found that states that had implemented policies similar to those in Pennsylvania had had experienced electricity prices that were both higher and more volatile than states that did not (Figures 3 and 4).

**Pennsylvania is Surrendering a Competitive Advantage**

This realization is critical to Pennsylvania's future. It is a strong message to manufacturers located in Pennsylvania, or those who may seek to grow or move to Pennsylvania about their potential ability to compete in national and global markets. This is demonstrated by the situation of a global manufacturer located in Lancaster County (Figure 5). Prior to the expiration of rate caps in the PPL service territory, this business was already surrendering a slight edge in electricity pricing to its domestic competition. The blue bars show that in 2009, for every dollar that this manufacturer was spending for electricity, their competition was spending between \$0.78 and \$1.00, which is to say the competition ranged from parity to a discount of \$0.22. However, as of 2010, this same manufacturer is at a deep disadvantage. The red bars show that in 2010, for every dollar that this Pennsylvania manufacturer spends on electricity, its competition is spending only between \$0.53 and \$0.63 – a disadvantage of between 37% and 47%!

You do not need much imagination to guess the eventual result of such a disparity. We used the same classification of states as the US GAO and applied it to the US Bureau of Labor Statistics (US BLS) data on manufacturing jobs (Figure 6). This study clearly

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<sup>1</sup> US GAO-08-987, United States Government Accountability Office 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", September 2008.

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shows that “Original RTO States”, like Pennsylvania, lost a larger percentage of their manufacturing jobs, and at a faster rate than states that did not adopt similar policies.

**Addressing Some Popular Myths**

We in IECPA know that Pennsylvania has all of the leadership, resources and resourcefulness we need to find our way out of this mess. However, before we can have those constructive conversations, we need to dispel some popular myths that keep distracting our focus from the real issues at hand.

Myth I – Pennsylvania’s Policies Have Been a Success

We might as well deal with the toughest myth first. Pennsylvania’s Electricity Generation Customer Choice and Competition Act of 1996 (HB-1509) has been, by its own definition, a failure. We need only look to the Declaration of Policy in the Bill’s own words.

Some of those testifying before this Committee in February would re-write history and have us believe that the objective of the law was competition – for its own sake. This is not only wrong, it is silly. Yes, the Bill spoke of competition, but not as a goal. Competition was the means, not the end. The Bill asserted that “*Competitive market forces are more effective than regulation in controlling the cost of generating electricity.*”<sup>2</sup> This is true, as far as it goes, but it does not describe what we have in Pennsylvania. In fact, with the increasing consolidation of electric generating companies, we clearly do not have competition in ‘*generating* electricity’. Instead, we have competition for the *re-selling* of the electricity that is being generated by the same small and shrinking number of large generating companies. Instead of large, regulated monopolies, we have larger, unregulated oligopolies.

The 1996 Choice Act did state its findings and its goals. In the same Declaration of Policy the Bill made several relevant statements:

“Rates for electricity in this Commonwealth are on average higher than the national average, and significant differences exist among the rates of Pennsylvania electric utilities.”<sup>3</sup> (emphasis added)

“The cost of electricity is an important factor in decisions made by businesses concerning locating, expanding and retaining facilities in this Commonwealth.”<sup>4</sup>

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<sup>2</sup> The General Assembly of Pennsylvania, House Bill No. 1509, November 20, 1996, § 2802 (5), page 19.

<sup>3</sup> Ibid § 2802(4), page 19.

<sup>4</sup> Ibid § 2802(6), page 19.

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“This Commonwealth must begin the transition from regulation to greater competition in the electricity generation market to benefit all classes of customers and to protect this Commonwealth's ability to compete in the national and international marketplace for industry and jobs.”<sup>5</sup> (emphasis added)

Measured by its own criteria, the experiment undertaken by this Bill has been a failure. Our prices, especially for industrial customers are still higher than the national average (Figure 7), and we have made the “*Commonwealth's ability to compete in the national and international marketplace for industry and jobs*” worse instead of better.

In science class we teach our kids that it is OK to experiment and to test a hypothesis. But we also teach them to be honest when evaluating the data, to learn from their failed experiments, and then try a new approach. This is now what we must do.

Myth II – Competition Drove Greater Efficiency in Nuclear Plants

I must admit, that as a nuclear engineer who spent the first twelve years of my career working at and for Philadelphia Electric's nuclear plants, this myth is my favorite. I can confidently assure you that the competition for the re-selling electricity has had no effect on the efficiency of nuclear plants – none!

We need to understand that nuclear plants only have two speeds “on” and “off”. Hence, their capacity factor, which is the measure of efficiency cited to this Committee in February, is influenced almost entirely by the number and duration of refueling and other outages. This point is made in the chart (Figure 8) that shows capacity factor climbing from 1990 to 2008 as the average number of outage days decline. While the timeline coincidentally coincides with Pennsylvania's Choice Act, there is a more fundamental reason for the gain in capacity factor.

It takes several years to build a nuclear plant. From the mid 1980's through the early 1990's the last set of nuclear plants built in the US were completed and brought on line. However, they were not really ‘completed’. Between 1974 and 1981, as this Committee will no doubt recall, the nuclear industry was convulsed by three large events: the 1974 fire in TVA's Browns Ferry; the 1981 discovery of faulty seismic work at California's Diablo Canyon; and the 1979 accident at Three Mile Island. Each of these events yielded thousands of items that needed to be fixed, repaired or replaced in all US nuclear plants. The US Nuclear Regulatory Commission (US NRC) required the most critical of these items to be completed before it granted operating licenses to this last cohort of plants. However, because there are jobs that can only be done and areas that can only be accessed when the unit is not running, the US NRC allowed thousands of less critical items at both the new plants and the existing plants to be deferred for one or more refueling outages. With fuel cycles ranging in length from 18 months to two years,

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<sup>5</sup> Ibid § 2802(7), page 19.

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several of the plants that commenced operation in the late 1980's were still using extended refueling/construction completion outages in the early 1990's. Hence, the increase in nuclear capacity factor is a story of completion, not competition.

Moreover, as the US NRC grants licenses to extend the life of these aging plants, they will require more work, not less. I would not be surprised to see these capacity factors fall off a bit as this work is performed. One wonders how the advocates of "competition" will explain that.

Myth III – Shopping and Lower Prices Proves the Success of "Competition"

In February this Committee heard, in a nutshell, that shopping rates and lower prices in comparison to the default service provided by the utility proves the success of the present policies in the state. We look at the data differently.

We believe we should examine the shopping claims more closely, particularly the data for industrial customers. It is true that 83% of PPL's industrial customers are shopping, but this is not a fruit of competition. PPL offers industrial customers "default", or non-shopping, service that is a variable hourly price. Even when a fixed price was offered in 2010, the prices were forced higher by the product's faulty design. As a consequence, the primary industrials who do not shop for their own contracts are those in situations so dire (e.g. poor credit or declining business) that they cannot procure electricity service on their own. This shopping statistic is meaningless.

Some others have noted, triumphantly, that choice has resulted in lower prices. While rates are indeed lower, this is the result of a tragedy, not a triumph. It is truly astonishing to hear people celebrate the results of the worst global recession in eighty years. Energy prices, like all commodity prices are lower globally. This situation is so anomalous that 2009 saw the largest decline in year-over-year demand since just after World War II. As the US Department of Energy, Energy Information Agency (EIA) stated:

*"Electricity markets in 2009 were keenly affected by economic and environmental developments. Electricity generation was down 4.1 percent, reaching its lowest level since 2003; this was the largest decline in 6 decades and follows a 0.9-percent decline in 2008. The drop in power demand reflects a 2.6-percent decline in economic activity (GDP) during 2009."*<sup>6</sup>

This is why we believe much of the data presented to this Committee in February should be viewed with a careful, if not skeptical, eye. In many cases, arguments were supported with 'average annual data' spanning periods of several years through 2008, 2009 and 2010. Given the dramatic impact of the global recession, from which we are still

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<sup>6</sup> US Department of Energy, Energy Information Agency: Electric Power Industry 2009: Year in Review.

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recovering, so called annual averages that include 2008, 2009 and 2010 should be used with the greatest caution.

**Myth IV – Shale Gas Has Solved the Problem**

It is tempting, even when acknowledging our present dilemma, to look back at 1995, when natural gas prices and forecasts were at or under \$3 per MMBtu, and note that since some of the advocates of electricity deregulation – but not IECPA – built their case upon cheap natural gas, the return of cheap natural gas prices brought by shale gas relieves us from the need to fix our structural problem. This would be a catastrophic mistake.

True, the paradigm upon which some in the national debate built their case for deregulation was cheap natural gas. The natural gas industry was coming out of what was then called a ‘bubble’. However, along with cheap fuel, the case against large generating utilities also relied upon access to easy credit. The idea was that new generation that used a low or moderately priced fuel, that could be built rapidly at low capital and debt cost, would give entry to a host of new generation players. This was to be the ‘*competition in generation*’. The Enron and Dynegy debacles of 2001 ended the notion of easy, low-cost credit. Then Katrina and an abruptly shrinking base of conventional natural gas supply ended the idea of natural gas as a low or moderately priced fuel. The result is the dramatic run-up in price that we experienced prior to the recession, and the continuing consolidation of the generation companies.

It is also true that shale gas promises an abundant, affordable supply of fuel for 100 years or more, but we need to realize that this forecast is fragile and that we need to protect it. Public acceptance of shale gas technology is far from assured. We are still in the process of proving to ourselves and the public that we can indeed develop this resource in a way that is sustainable. Most of all, we need to make sure shale gas never has a “Three Mile Island moment”, which is an event that fundamentally challenges the credibility of the industry and its technology before it has had an opportunity to earn the public’s trust.

Even if shale gas is successful in gaining the public’s trust, we could stretch this resource so thin that we still do not have a fuel that is abundant and affordable. There are many emerging demands for a fuel that is perceived as clean and cheap. Three different market sectors are now vying to absorb as much shale gas as they can acquire.

- 1) Power Generation – as a substitute for coal for Green House Gas relief
- 2) Transportation – as a substitute for petroleum fuels (i.e. The Pickens Plan)
- 3) Export – to capture a profit on the global market for the producers

**Pennsylvania Remains at Great Risk**

Pennsylvania in 2011 is exposed to great risk. Natural gas price forecasts vary dramatically depending upon the assumptions for the availability and access to shale gas (Figure 9). If the promise of shale gas is somehow not realized, or if the supply of shale

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gas is absorbed faster than it can be produced, natural gas price forecasts can easily return to the levels we saw in 2007. Hence, the affordability, stability, predictability, reliability and sustainability of the energy prices of 2011 are no more secure than the energy prices of 1995. While shale gas should be viewed as a resource that we can use to great advantage, we still need to solve the structural problems in our present electricity policies. Absent such a structural reform, nothing prevents a return to the wildly escalating energy prices of 2007. Industrial customers, manufacturing jobs and the prosperity of the entire state remain exposed to this great risk.

### **Conclusions**

In a state that truly cared about long term, sustainable prosperity, more would be done to insure our manufacturing base was not abandoned to these indifferent and uncontrollable forces. Indeed, Pennsylvania may soon find itself alone in this indifference. Many of the states that were considering a deregulation similar to that of Pennsylvania suspended or cancelled their considerations after Enron and others took advantage of California in 2000. Other states that did deregulate and began moving to “competition” have since reconsidered and reversed course in one way or another (e.g. VA 2007, OH 2008 and NJ 2010).

Contrary to the stated goals of the Choice Act, Pennsylvania is presently deciding *NOT* to “[p]rotect this Commonwealth's ability to compete in the national and international marketplace for industry and jobs.” Pennsylvania presently has no energy policy tools to encourage industrial customers to retain, grow or relocate new manufacturing operations to our state. When compared to other states, this amounts to unilateral disarmament. Ohio made “Reasonable Arrangements” part of their state law and its PUCO is presently developing a statewide economic development tariff for job retention and creation. Iowa’s utilities make liberal use of the “Flex Tariff” in their state code. Other states offer direct concessions to industry to stay, grow or enter their economies. Pennsylvanians know that a state economy without a manufacturing base is a hollow shell, but Pennsylvania’s industrials will be every bit as exposed to wild price increases in 2012 and beyond as we were in 2007, except there will not be the mitigating effects of the rate caps.

A state like Pennsylvania with a proud history of manufacturing, with under-utilized plant and people, and with access to abundant low-cost energy should certainly do more to proactively shape its future. We in IECPA believe that Pennsylvania and the US should aggressively grow that part of our economy where “*people who sweat, make things you can touch.*” We stand ready to do our share. We are eager to roll up our sleeves, share our ideas and help build our future.

I look forward to your questions.

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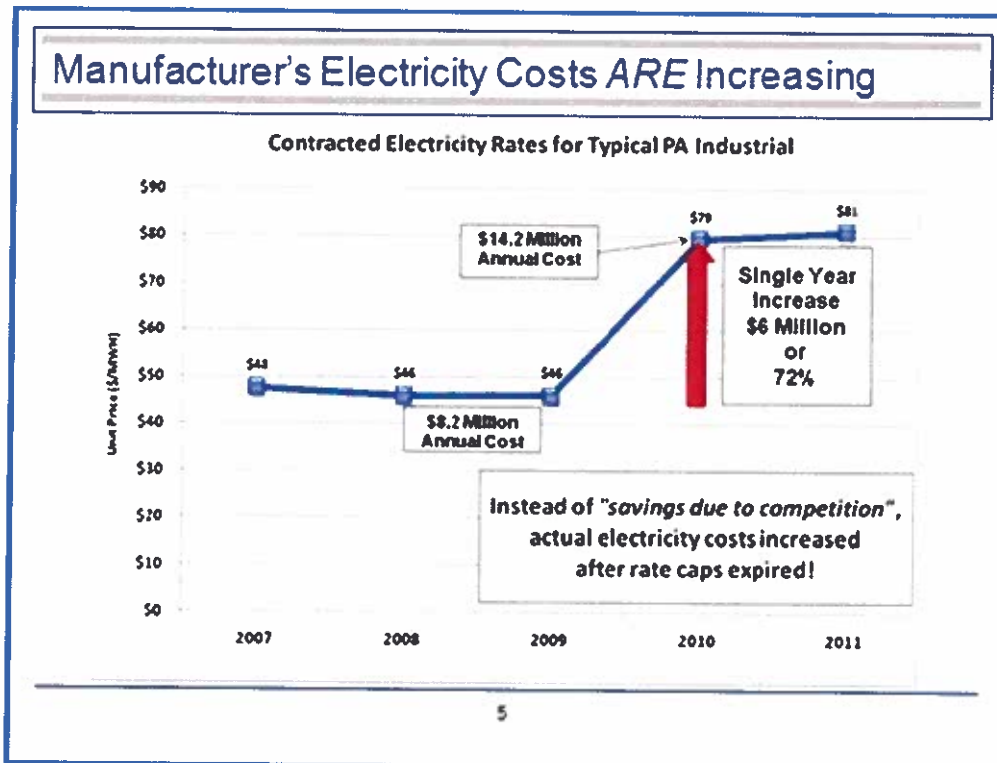


Figure 1

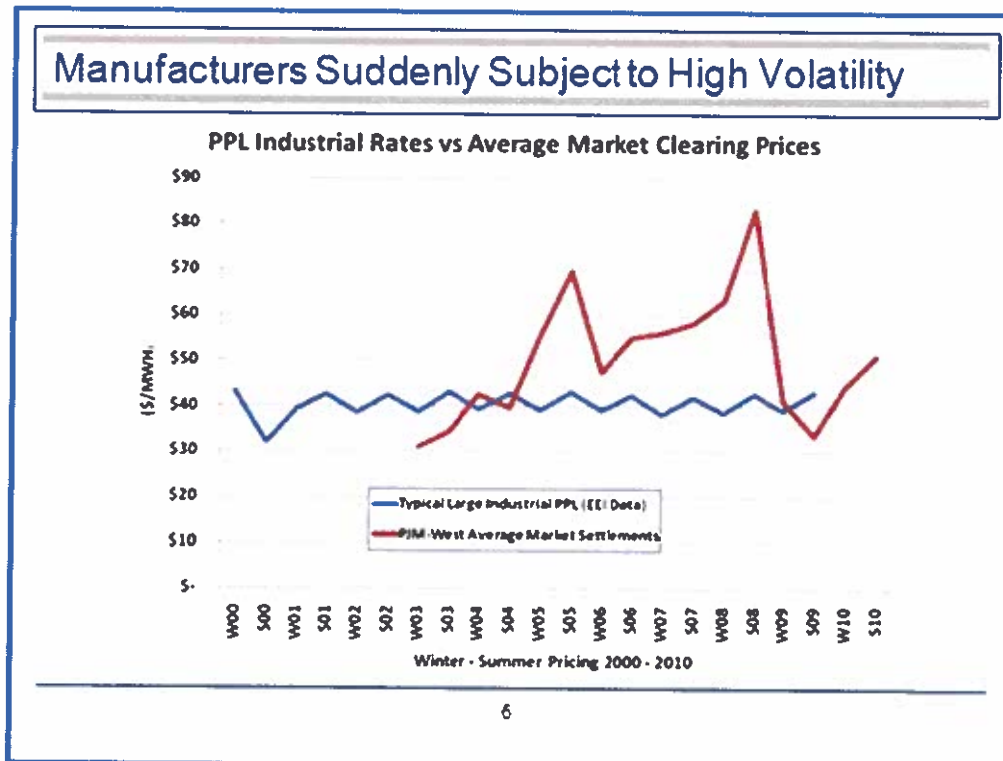
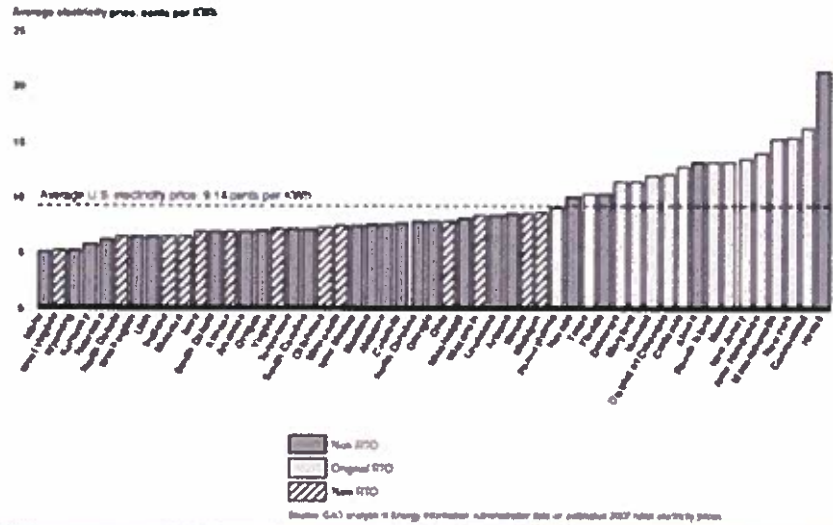


Figure 2

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**Rates in Restructured (RTO) States are Higher**

**Figure 9: Retail Electricity Prices by State, 2007**

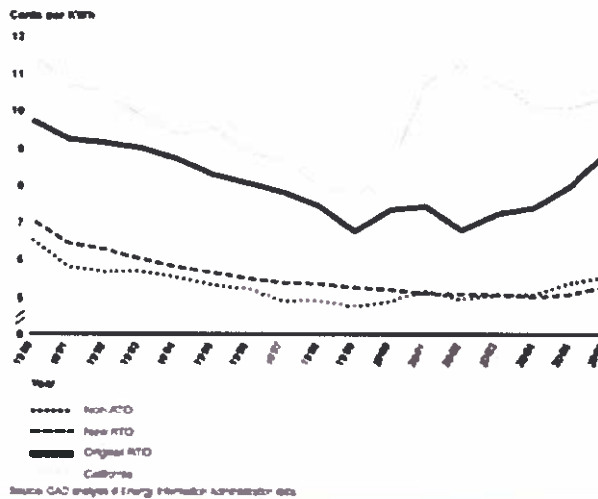


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Figure 3

**Rates in Restructured (RTO) States Increased Faster**

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



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Figure 4

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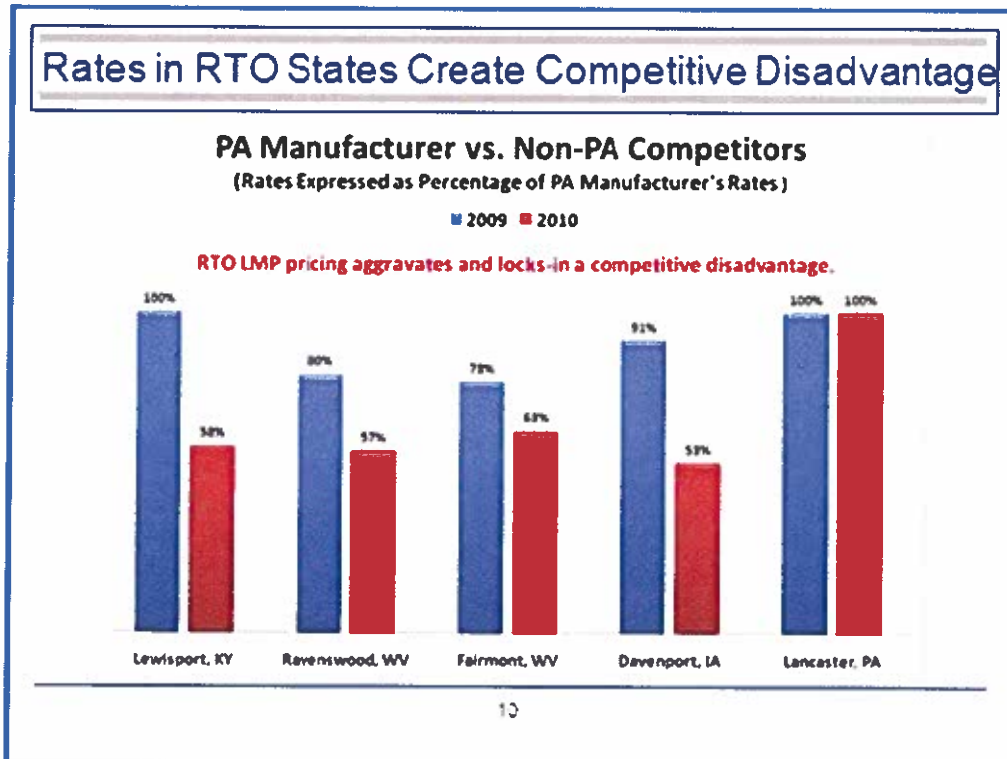


Figure 5

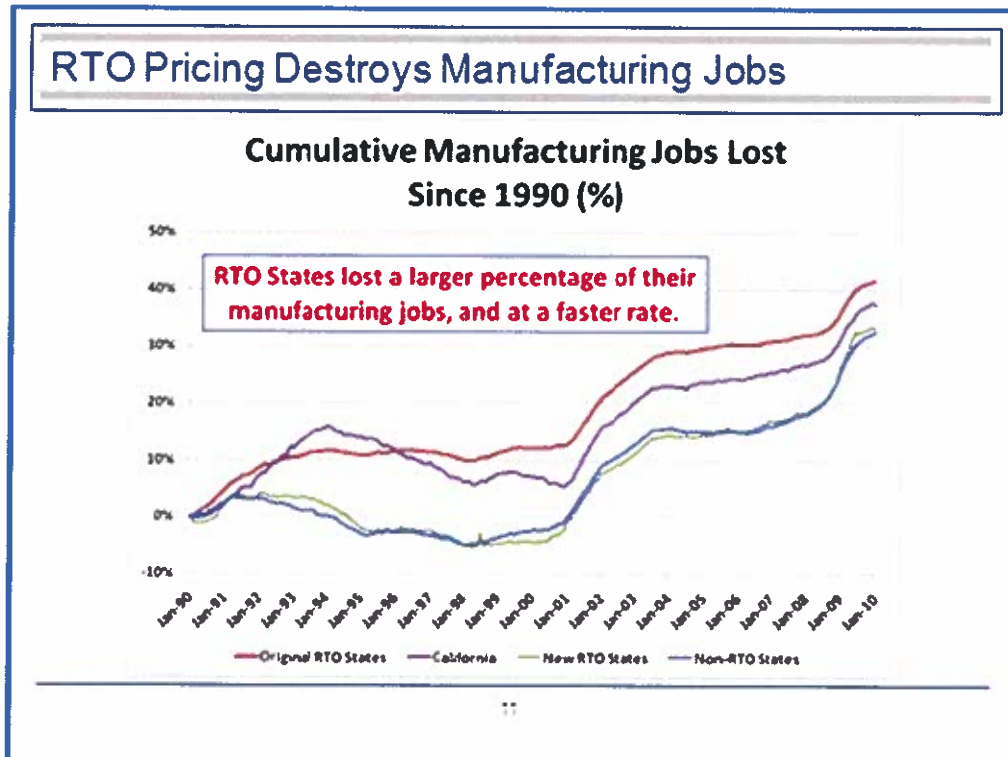
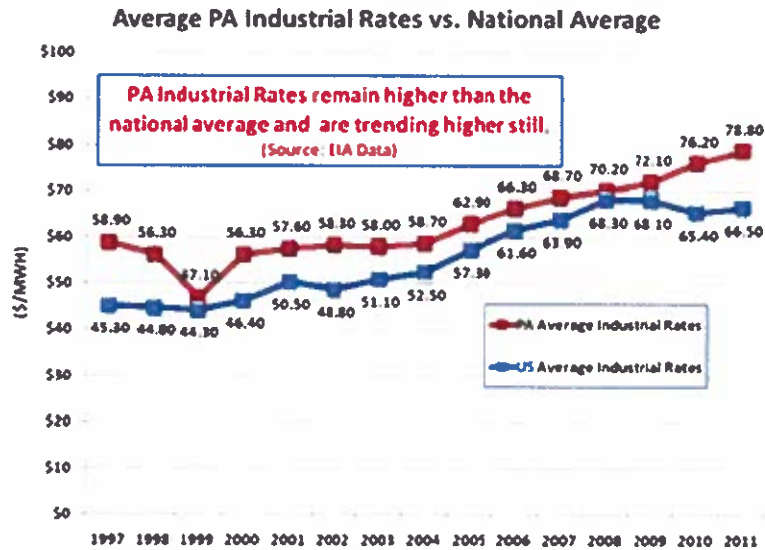


Figure 6

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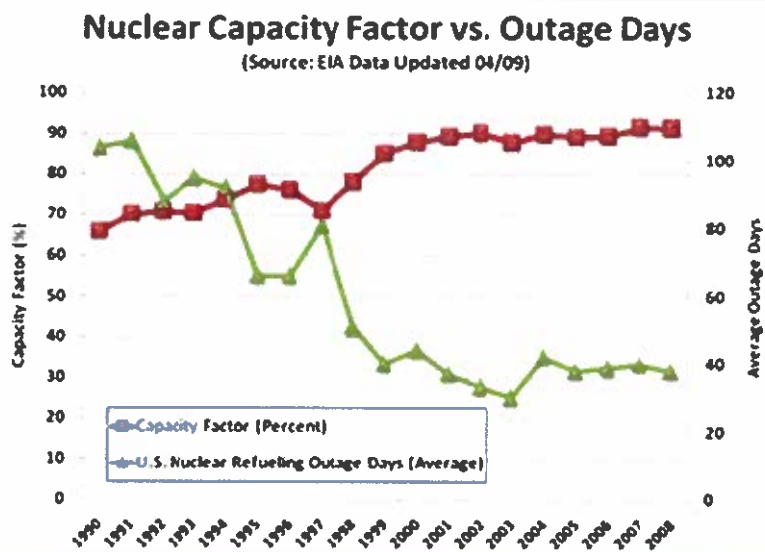
**PA Industrial Rates Are Still Higher than US Average**



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Figure 7

**Nuclear Capacity Factor – Completion vs. "Competition"**



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Figure 8

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**Shale Gas Impact on Natural Gas Price Forecasts**

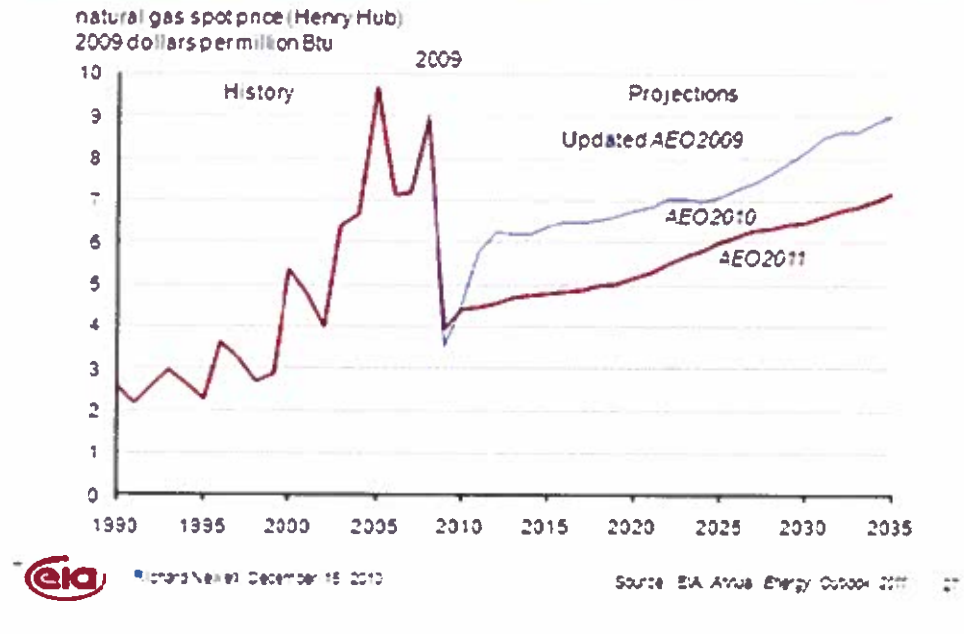


Figure 9

**IECPA Membership**

- |   |  |
|---|--|
| <b>Air Liquide Industrial U.S.</b>      | <b>Linde Energy Services, Inc.</b>                     |
| <b>Air Products and Chemicals, Inc.</b> | <b>Mersen USA St. Marys-PA</b>                         |
| <b>AK Steel Corporation</b>             | <b>Nova Chemicals</b>                                  |
| <b>Alcoa Inc</b>                        | <b>Praxair, Inc.</b>                                   |
| <b>ArcelorMittal Steel USA Inc.</b>     | <b>Standard Steel</b>                                  |
| <b>Armstrong World Industries</b>       | <b>The Dow Chemical Company</b>                        |
| <b>Benton Foundry, Inc.</b>             | <b>The Hershey Company</b>                             |
| <b>Carpenter Technology Corp.</b>       | <b>The Procter &amp; Gamble Paper Products Company</b> |
| <b>Colonial Metals Corporation</b>      | <b>United States Steel Corporation</b>                 |
| <b>Ervin Industries, Inc.</b>           | <b>World Kitchen Inc.</b>                              |
| <b>Knouse Foods Cooperative, Inc.</b>   |  |