

**Testimony of Glen R. Thomas**  
**On behalf of the PJM Power Providers Group**  
**Before the Pennsylvania Public Utility Commission**  
**Public Hearing on Current and Future Wholesale Electricity Markets**  
**October 23, 2008**

Chairman Cawley, Vice Chairman Christy, Commissioners Pizzingrilli, Powelson and Gardner, it is a distinct pleasure to appear before you today and present testimony of behalf of the PJM Power Providers Group (P3).<sup>1</sup> I appreciate the opportunity to offer these comments and engage in a discussion with this honorable Commission on the current and future status of wholesale electricity markets serving Pennsylvania.

P3 applauds the Commission for holding today's hearing. The wholesale electricity markets serving Pennsylvania are the backbone of our economy and quality of life. The policies of the wholesale markets will have a direct impact on the available supply of generation to meet the demands of consumers and the price they pay for that service. Fortunately, Pennsylvania is served by two first-class regional transmission organizations in PJM and the Midwest ISO.

For purposes of today's testimony, I am going to focus exclusively on the PJM market. While Midwest ISO serves a significant, and perhaps growing, territory in Pennsylvania, I will concentrate on the market structure of PJM, as it serves the vast majority of Pennsylvanians.

While there are a myriad of issues that could be addressed in this testimony, I will confine my remarks to the policies that are most relevant to this Commission. In doing so, I would respectfully suggest that the principal tenet of a well-founded Pennsylvania electricity policy should be ensuring safe and reliable service at the lowest reasonable prices while balancing the environmental goals of the Commonwealth. It is a relatively simple charge that is extraordinarily hard to fulfill.

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<sup>1</sup> P3 is a non-profit organization dedicated to advancing federal, state and regional policies that promote properly designed and well-functioning electricity markets in the PJM region. Combined, P3's eleven member companies own over 75,000 megawatts of power and over 51,000 miles of transmission lines in the PJM region, serve nearly 12.2 million customers and employ over 55,000 people in the 14-state PJM region. The views expressed in this testimony do not necessarily reflect the views of individual P3 members. For more information on P3, visit [www.p3powergroup.com](http://www.p3powergroup.com).

I will address each piece of this tenet in order of importance and attempt to explain how the PJM markets support the overall policy goals of this Commonwealth. It is important to note that wholesale markets should be evaluated on their ability to deliver consumers value over the long-term. Since markets vary, judging markets at any single moment in time is not likely to produce an accurate reflection of their performance. While the PJM market is not perfect – no market is perfect and there are always improvements that should be discussed and perhaps made - overall PJM’s markets are competitive, well-functioning and fulfilling their intended purpose.

### **1. “Ensuring safe and reliable service”**

During my tenure on the Commission, I was fond of saying “Reliability is job 1.” Electricity is an essential commodity and electricity shortages are not something that can be tolerated by regulators except in extreme circumstances. The lights must stay on and it is the combined job of both federal and state regulators to promote policies that fulfill this charge.

Reliability is a regional issue and Pennsylvania is fortunate to be able to participate in a market as broad as PJM’s. Being a part of PJM allows Pennsylvania consumers to enjoy the reliability benefits of being in a large power pool with more than 160,000 megawatts of power (Pennsylvania’s peak demand is approximately 30,000 megawatts). On peak days, Pennsylvania can draw upon plants in other states to meet its demands with the cost protection of a multi-state alliance.

PJM’s robust transmission system allows for the mass movement of power across an enormous footprint. PJM’s transmission planning process anticipates the needs of the footprint and, through a stakeholder process, transmission upgrades are designed and approved to keep the grid robust. Since 2000, the PJM Board has authorized nearly \$10 billion in transmission upgrades and projects.

Capacity markets in PJM help to insure that there is an adequate amount of installed generation capacity in the region to support demand. While capacity markets have had a mixed history in PJM, the current capacity construct in PJM is leading to meaningful investments in new resources and dramatically improving the reliability prognosis for Pennsylvania and the entire PJM footprint.

Prior to RPM, PJM’s capacity market was not fulfilling its mission. Throughout the footprint, reserve margins were decreasing, local reliability violations were looming, generators were not recovering their fixed costs and reliability was suffering. As FERC would later determine, the capacity construct at the time was not just and reasonable. Consumers were paying for capacity markets, but reliability was suffering. Clearly something needed to be done.

In an effort to fix the problem, PJM’s stakeholders engaged in lengthy discussions on how best to create a meaningful capacity market that fulfilled its mission to improve reliability in the region. After a very methodical stakeholder process at PJM and a later settlement process at

FERC, tariff provisions were eventually approved that fundamentally changed the capacity construct and created RPM.

To date, there have been five RPM auctions, although four of these auctions are appropriately labeled as “transitional.” A recent report by the Brattle Group reviewing the first five auctions explained the significant progress that has occurred as a result of RPM.<sup>2</sup> The Brattle Group’s analysis draws a clear and unmistakable conclusion: RPM is working as intended and dramatically improving the reliability of the PJM region. Specifically, the Brattle Group found that 14,500 MW of resources are available in PJM that would not have been available without RPM – including new generation and demand response. PJM’s declining reserve margins have reversed as a result of RPM and the consumers in PJM have a renewed confidence that there will be an adequate supply of power to meet their future needs.

RPM is a relatively new market construct that is showing remarkable promise. While this Commission is likely to hear many views expressing concerns about RPM, it is undeniable that RPM is materially improving the reliability of the PJM grid. The PJM stakeholder process is currently evaluating changes to RPM that will help refine RPM as a market mechanism. Most stakeholders agree that certain refinements are appropriate; however, the fundamental elements of RPM are yielding positive results that should not be dismissed by this Commission.

## **2. “At the lowest reasonable prices”**

Wholesale market prices in PJM are derived from three main sources: energy markets, capacity markets and ancillary services markets. Since ancillary services make up such a small piece of the overall bill, I will focus on the prices of the energy and capacity markets.

### **a. Energy**

Despite the issues and controversies swirling around PJM, PJM’s energy markets are still the best and most liquid markets in the country, if not the world. And those markets greatly benefit everyone from wholesale customers to retail end users, from coal generators in Appalachia to solar and wind developers in New Jersey, from nuclear units in Illinois to demand side providers in Maryland.

PJM’s energy market is based on a locational marginal pricing construct that encourages bidders to submit the lowest possible bid in hopes of “being taken.” The energy markets are watched carefully by PJM’s Market Monitor and are consistently found to yield competitive results. Over 500 buyers, sellers and traders of energy and capacity act in a rational manner and the market monitor has the ability to keep the market free from the exercise of local market power.

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<sup>2</sup> See, [http://www.brattle.com/\\_documents/UploadLibrary/Upload696.pdf](http://www.brattle.com/_documents/UploadLibrary/Upload696.pdf)

Prices in PJM energy markets vary across hours, days and seasons based on supply and demand. Not surprisingly, prices rise during times of scarcity and fall during periods of low demand. Moreover, the presence of competitive alternatives provides a meaningful check on any bids that are submitted in the energy market. Over time, this energy market structure has actually lowered the fuel adjusted price of electricity in the PJM by 23% over the last ten years.<sup>3</sup>

## **b. Capacity**

Capacity prices in the PJM footprint have received significant attention from state regulators. While this Commission, along with other commissions in the region, challenged the results of the first four capacity auctions, a deeper analysis of the capacity prices in PJM reveals that the prices fairly reflect the actual cost of the resource. While I'm not an economist, let me offer several observations to help put the current capacity prices in perspective:

- PJM's Market Monitor has reviewed every capacity auction held to date at several different levels and concluded that the auctions have been competitive.<sup>4</sup>

- FERC, in unanimously dismissing the complaint challenging the first four auctions, ruled that the prices in these auctions were consistent with the FERC-approved tariffs and allegations of market power were unsubstantiated.

- Due to factors completely outside of the control of this Commission and PJM, the cost of capacity has increased significantly over the last three years. Increased environmental regulation, increased demand, years of underinvestment and higher cost of new construction have all led to higher capacity values that are being reflected in price.

- Demand response has increased dramatically in PJM as a result of the introduction of RPM as over 3500 MW of demand resources have been to PJM from 2006 to 2011/12.

- Finally, capacity, by its nature, is a long-term product and auction results are best viewed over multiple years, as opposed to a single year or two.

As mentioned earlier, adjustments to the capacity market are currently being considered in the PJM stakeholder process. FERC is carefully monitoring the capacity market issue in PJM and has ordered PJM to make certain filings by December 15. FERC also intends to host a technical conference on RPM in February. Regardless of the outcomes of the stakeholder process and the inevitable FERC process, a functional capacity market in PJM is critical to the future success of

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<sup>3</sup> See testimony of Andrew Ott before the Pennsylvania House Energy and Environmental Resources Committee, September 9, 2008.

<sup>4</sup> <http://www.pjm.com/markets/market-monitor/downloads/mmu-reports/bowring-dec-pjm-answer-to-rpm-buyers.pdf> at paragraph 9.

the market and the changes that have been made as a result of RPM are clearly a step in the right direction.

### 3. “Balancing the environmental goals of the Commonwealth”

PJM’s and the Midwest ISO’s competitive market structure promotes the development of renewable energy in Pennsylvania. Renewable resources can participate in both energy and capacity markets and specific accommodations have been made to promote participation from intermittent resources such as wind. Indeed, over 300 MWs of wind have cleared recent capacity auctions and in the most recent auction, a solar resource cleared for the first time ever.

For these and other reasons, PennFuture concluded:

*“The PJM-operated market is an incredible asset to wind energy development in Pennsylvania and the entire PJM region. Thanks to the PJM market, Pennsylvania will enjoy more new investments in renewable energy. These investments will create a virtuous circle of grid capacity, energy resource diversity and environmental improvement. That all adds up to better electricity prices and more reliability for our consumers too.”*<sup>5</sup>

Similarly, the American Wind Energy Association (AWEA) passed a resolution in February strongly supporting the “preservation and expansion of competitive regional wholesale electricity markets.” Drawing on experiences from the United State and Europe, AWEA found development of wind power easier in areas with competitive wholesale electricity markets.

This Commonwealth has forged a very aggressive renewable energy policy and, with the recent passage of HB 2200, will need every available tool in order to meet the demand response, energy efficiency and alternative energy goals of this Commonwealth. A market structure, such as PJM’s, that is based on a predictable capacity mechanism and a liquid energy market provides an ideal if not optimal foundation from which to pursue these goals.

Before I conclude, I would like to respond to those who suggest that the PJM markets are not working for consumers. I would respectfully submit that not all Pennsylvania consumers share the views of those outside of Pennsylvania who routinely criticize PJM’s policies. Consider that on Monday, several large Pennsylvania commercial and industrial consumers sent a letter to Governor Rendell on issues related to the Commonwealth’s electricity policy. Combined, the signatories to this letter employ nearly 100,000 Pennsylvanians. Among the points stressed by these major employers:

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<sup>5</sup> [http://www.pennfuture.org/media\\_e3\\_detail.aspx?MediaID=938](http://www.pennfuture.org/media_e3_detail.aspx?MediaID=938)

*“We believe that regional competitive wholesale markets for electricity with independent oversight, as we have in the PJM marketplace, provide access to generation at the lowest available cost, promote transparency and reliability, enhance the nation’s transmission infrastructure, and provide price signals that promote sound investment decisions regarding generation (using renewable energy as well as more traditional sources), transmission, demand response, and energy efficiency.”*

These Pennsylvania businesses and consumers supporting PJM’s competitive wholesale markets are probably not alone. While today’s energy markets present numerous challenges for this Commission and other commissions throughout the country, the markets serving Pennsylvania are fundamentally sound, well structured and working effectively. Indeed, competitive wholesale markets enjoy strong bipartisan support from the Federal Energy Regulatory Commission. FERC Chairman Joseph Kelliher (R) has stated that “competition policy is best suited to address the hard realities we are facing today” and Commissioner Suedeen Kelly (D) referred to regional wholesale markets as a “real success story.”

As commissioners, you can ensure that Pennsylvania’s consumers continue to be part of this “success story.” If you can maintain a steady, yet reasoned, long-term vision based on competitive market principles, your legacies as effective stewards of the public trust will be solidified. Economic turmoil combined with higher, though falling, energy prices have created enormous instability and uncertainty. It is difficult to make reasoned decisions with assumptions changing so frequently. What might be a “good deal” today for consumers could quickly turn into tomorrow’s stranded cost.

That said, over time a wholesale market structure, such as PJM’s, when combined with retail policies as envisioned by the current Provider or Last Resort Regulations will produce enormous opportunities for Pennsylvania’s consumers. Pennsylvania’s foundation is indeed a solid one that can sustain the enduring challenge of providing a safe and reliable supply of power at the lowest reasonable cost while positioning the Commonwealth to achieve its environmental goals.

The time is right to build upon this foundation, not tear it down.