Electric Power Generation Association

800 North Third Street, Suite 303
Harrisburg, Pennsylvania 17102
Telephone (717) 909-3742
Fax (717) 909-1941
www.epga.org

November 17, 2008

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M-2008-2066901

James J. McNulty, Secretary
Secretary's Bureau
Pennsylvania Public Utility Commission
2nd Floor North, Commonwealth Keystone Building
Harrisburg, PA 17110

Re: **Reply Comments of the Electric Power Generation Association to Testimony Presented at the *En Banc* Hearing on November 6, 2008**

Dear Secretary McNulty:

Please find enclosed an original and ten copies, as well as a copy in electronic format on diskette of the Electric Power Generation Association's Reply Comments with regard to the November 6 Hearing on Current and Future Wholesale Electricity Markets.

If there are any questions or you need additional information, please feel free to contact our office.

Very truly yours,

Terrance J. Fitzpatrick

Terrance J. Fitzpatrick
General Counsel

TJF:sb

Enclosures

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

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Hearings on Current and Future : M-2008-2066901
Wholesale Electricity Markets :

Reply Comments of the Electric Power Generation Association to Testimony Presented at the *En Banc* Hearing on November 6, 2008

The Electric Power Generation Association ("EPGA")[1] appreciates this opportunity to comment on the testimony offered to the Commission at the *En Banc* hearing on November 6, 2008. As expected, the testimony criticized the design and results of wholesale electricity markets. These reply comments will specifically address four assertions in the testimony – that wholesale electricity prices are unfair to consumers, that the single price auction leads to unfair results and amounts to a so-called "no generator left behind" policy, that improvements in the operating efficiency of generating plants (which even these market critics recognize) have not benefited consumers, and that wholesale market rules have resulted in higher prices than if traditional cost-of-service regulation had been retained.

Before addressing these specific assertions, we offer three overarching observations for the Commission to consider as it reviews the criticisms of wholesale markets. First, wholesale markets may not be perfect, but neither was traditional

[1] The Electric Power Generation Association (EPGA) is a regional trade association of electric generating companies with headquarters in Harrisburg. Its members include AES Beaver Valley LLC, Allegheny Energy Supply, Cogentrix Energy Inc., Constellation Energy Commodities Group Inc., Dynegy Inc., Edison Mission Group, Exelon Generation, FirstEnergy Generation Corp., LS Power Associates LP, PPL Generation, Reliant Energy, Sunbury Generation LP, Tenaska Inc., and UGI Development Company.

regulation. Widespread dissatisfaction with the inefficiencies spawned by cost-of-service regulation – for example, cost overruns during construction of plants, cost disparities across the electric industry, and extended outages at certain plants – led to federal and state policies favoring competition in order to place the risks of building and running generating plants upon shareholders instead of captive customers. The design of wholesale electricity markets is complex, and that fact alone likely contributes to opposition to these markets, especially in an environment of rising costs. But some complexity is inevitable given the unique characteristics of electricity – it cannot be stored on a large scale, supply and demand must be kept in constant balance, reliability must be maintained, etc. When all the facts are reviewed, it is clear that wholesale electricity markets – while still "works in progress" requiring careful review and refinement – are providing reliable supplies at competitive prices. Efforts should be focused on improving electricity markets, not dismantling them, because as Chairman Cawley has recognized, "retreat is not an option."[2]

Second, this Commission should pause to consider that if one accepts as valid the complaints raised by the industrial customers and public power advocates in their testimony, then one must also accept that a large group of current and former Commissioners of the Federal Energy Regulatory Commission – including both Democrats and Republicans – have been badly mistaken in setting policies governing wholesale markets. It is telling that the critics of markets have been unsuccessful in *persuading current or former* FERC *Commissioners that wholesale markets are* "broken" or "dysfunctional." The reason for this lack of success is not that the FERC

[2] Testimony presented to Pa. Senate Consumer Protection and Professional Licensure Committee, and Environmental Resources and Energy Committee, June 5, 2007.

has a "blind spot"[3] or refuses to listen[4]; it is that the market critics' arguments lack merit. The FERC has considered these arguments before and rejected them for sound economic and policy reasons.

Third, the Commission should keep in mind that electricity generation is a capital-intensive industry, and stability is important to encourage investments in both new and existing generating plants. This is especially important as our country enters an era when it appears more likely that very substantial investments will be needed to address climate change. The short-term focus of the industrial customers – who pressed forcefully and persistently to replace cost-of-service regulation with competition, only to argue a decade later for, essentially, a return to cost-of-service regulation[5] – is not compatible with a stable investment environment or sustainable, reliable power supplies. Moreover, competition has vastly improved the efficiency of the generation industry, and we can scarcely risk losing these efficiencies as we move into a future in which these expensive environmental challenges are looming.

1. The Testimony of PJM Market Monitor Joseph Bowring comparing generator revenues and costs and discussing mitigation shows that wholesale prices are competitive.

At the November 6 hearing, the representatives of industrial customers testified, in essence, that wholesale prices are too high, and they hinted that the prices are influenced by generator market power. However, these arguments ignore the market monitor's comparison of generator costs and revenues, which showed that:

[3] Testimony of David F. Ciarlone, p. 8.
[4] Testimony of Robert Weishaar, p. 1.
[5] The Electric Power Supply Association has accurately characterized the alternative wholesale market design favored by industrial customers as "a direct attempt to go back to cost-of-service ratemaking." EPSA reply comments, p. 7.

> [n]et revenue from PJM markets has generally been below the level required to cover the full costs of new generation investment for all unit types for the entire market period prior to the introduction of RPM.

Testimony of Joseph E. Bowring, October 23, 2008, p. 7.

This testimony clearly supports the conclusion that wholesale prices are competitive.

One of the main reasons for establishing wholesale competition was to shift the risk of building new generating plants from captive customers of utilities to the shareholders of competitive generators. However, generators will only invest in plants if they believe they have a good chance to recover their costs and earn a reasonable return – the "cost of new entry" ("CONE").

As Dr. Bowring testified, since PJM's markets began operating, the revenue available to generators from all of PJM's markets (energy, capacity, and ancillary services) has not generally covered the cost of new entry. In 2005, PJM filed, and the FERC later approved, the "reliability pricing model" – a new method of pricing capacity that was designed to address generation shortages that were developing in parts of PJM due to prices that did not cover the CONE. The FERC specifically found that PJM's prior capacity pricing rules were not "just and reasonable" because revenues available to generators under these rules were not sufficient to cover the investment needed to keep the lights on, and this was causing shortages to develop in some areas. Further, Dr. Bowring testified that, since RPM went into effect, the revenues available to generators now cover the CONE in some (but not all) areas of PJM, and that this has changed the incentives for new capacity to enter in those areas.[6]

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[6] It is important to update the CONE used in this analysis so that it reflects reasonably current costs, and owners of generation have advocated more timely updates.

It should be recognized that the additional revenue from operation of RPM is important for both new generation and for providing incentives to existing generators to continue operating. Existing generators need to cover operating costs such as fuel, and also need revenue to support capital investments in environmental controls, turbine upgrades, etc. needed to keep the plants running for the benefit of the region.

The fact that wholesale prices in PJM have not generally covered the CONE leads to the difficult -- but inescapable -- conclusion that these prices have been too low, although this situation is now improving due to RPM. But the fact that compensation for generation has been improving does not mean that prices are now "too high." Investment has been picking up because generators believe that the problems that prevented wholesale prices from covering CONE or the ongoing costs of operating existing plants have been fixed. But if the industrial customers are successful in lowering prices and frustrating the expectations of investors, this would exacerbate the problem of attracting investment needed to keep the lights on.

It is noteworthy that the market critics who testified at the November 6 hearing avoided mention of Dr. Bowring's net revenue analysis which shows that wholesale prices have persistently failed to cover the CONE. The reason for this is clear – the net revenue analysis refutes their theory that wholesale prices are too high.[7]

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[7] Further, the industrial customers' "hints" that generators may be exercising market power overlook the pervasive bid capping in PJM's energy and capacity markets. Under these rules, whenever a generator could potentially have the ability to exercise market power, then PJM uses only the generators costs of generating power to set prices. In addition, all existing generators bidding into PJM's capacity markets have had all of their capacity bids capped by PJM. Dr. Bowring states unequivocally that these rules assure "all market participants that market outcomes are and will remain competitive." Bowring testimony, p. 11.

2. The mixed financial results in the generation industry disprove the argument of industrial customers that FERC policies assure profits to all generators.

The witness for the PJM Industrial Customer Coalition stated in his testimony that the design of wholesale prices in PJM amounts to a "no generator left behind" pricing policy.[8] If this were correct, one would expect that all generators would be profitable, but that is not the case.

As in other industries, some generators have been successful and others have struggled financially. The differences can be attributed to a number of factors, such as the type of plants each company owns (coal, nuclear, natural gas), how the company acquired the plants, the business strategy of each company, operating records and efficiencies, etc.

In general, generation companies that own coal and nuclear plants have been more successful than those that invested heavily in natural gas generation over the past decade, because natural gas costs have risen more than the cost of other fuels. Owners of coal and nuclear plants have faced lower fuel costs, and the operation of these plants has improved significantly since competition began. Nuclear plants, for example, now operate as much as 95% of the time, whereas under regulation the Commission was investigating prolonged outages at these plants.[9]

Some generators have been profitable, while others have gone bankrupt in years past, including two former members of EPGA. Clearly, it is not accurate to portray PJM's pricing policies as guaranteeing success for all generators. And at a time in our

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[8] Testimony of Robert Weishaar, pages 3-4.

[9] It must also be recognized that nuclear and coal plants have much higher capital costs than natural gas plants, and that efforts by industrial customers to bar owners of these plants from recovering market-clearing prices will, if successful, render it impossible to build more of these plants in a market setting.

history when many large, important companies are failing and pleading for a taxpayer-funded bailout, it makes little sense to vilify successful generation owners.

3. Improvements in the operating efficiency of generating plants have benefited consumers.

The witness for the PJM Industrial Customer Coalition testified that improvements in the operating efficiency of generating plants have benefited generators, not consumers.[10] As explained below, efficiency improvements have benefited consumers.

Under the single price auction administered by PJM to set prices in the spot market, all generating plants submit bids at their marginal operating cost, and PJM accepts these bids from lowest to highest until demand is met. All bidders are then paid at the level of the "market clearing" or highest bid. The fact that the highest bid is paid to all bidders provides an incentive for generators to maximize the output of their plants. To the extent that a baseload plant with relatively low operating costs improves the availability and output of the plant, this lowers the number of hours that other plants with higher operating costs will be dispatched. This is an example of how market-based incentives drive efficiencies that lower market prices for the benefit of consumers.

The experience of nuclear plants since competition began supports these statements. The percentage of time that nuclear plants operate (the "capacity factor") has improved from around 70% to over 90%, with the best plants achieving a capacity factor of more than 95%. This rise in efficiency, most of which occurred since the advent of wholesale competition, has been the equivalent of adding 26 new nuclear

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[10] Testimony of Robert Weishaar, p. 3.

reactors nationwide. Closer to home, a study by Bates-White[11] found that the improved performance at four of the five nuclear plants in Pennsylvania from 1999 to 2007 resulted in annual net savings of $432 million in eastern PJM and $122 million in Pennsylvania. Coal plants have also improved their capacity factors and heat rates, providing similar benefits.

The extent to which efficiency improvements have benefited consumers under PJM's existing "market clearing" price mechanism was explained by PJM witness Andrew Ott at the October 23 hearing:

> [W]hen we account for the rising price of fuel (such as coal, oil, and natural gas), the fuel-price adjusted LMP has actually gone down more than 23% over the past 10 years. This comparison shows not only the influence of fuel on the price of wholesale electricity, but also the benefits of the increasing efficiencies of PJM's wholesale electricity markets.

Testimony of Andrew Ott, p. 5.

4. The evidence does not support the argument of industrial customers that wholesale market rules are causing higher prices than if cost-of-service regulation had been retained.

Industrial customers contend that the pricing rules in the wholesale market are resulting in higher retail prices than would have prevailed if (contrary to their pleas at the time the change was made) traditional cost-of-service regulation had been retained.[12] They base this argument upon a comparison of prices to industrial customers in restructured and non-restructured states at specific points in time. But these types of

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[11] *The Pennsylvania Electricity Restructuring Act: Economic Benefits and Regional Comparisons*, Bates White, LLC, February 2007.
[12] Testimony of Robert Weishaar, pp. 1-3; Testimony of John Hughes, pp. 7-8, 16.

comparisons can be misleading, and the conclusion that wholesale pricing rules have caused higher prices is refuted by other testimony in this proceeding.

First, the reply comments filed by the Electric Power Supply Association in this proceeding cite comprehensive reviews of price changes in restructured and non-restructured states, and these reviews do not support a conclusion that retail prices have increased more in restructured states. These comprehensive reviews are more reliable than the snapshot comparisons of prices paid by particular customers at particular points in time.[13]

Snapshot comparisons of prices paid by customers in different states can be misleading because it is difficult to isolate all the variables that can affect prices, and because the timing of the comparison may miss important trends. The largest variable is fuel costs. The cost-of-service states that the industrials use in their comparisons may rely more heavily on coal-fired generation than does the PJM market as a whole. This is important because, as Dr. Bowring's testimony shows,[14] coal prices have not risen as much as natural gas prices since 1999 – 200% increase for coal compared to a 300% increase for natural gas. In addition, almost half of the increase in coal prices (94%) occurred in the first six months of 2008, so this increase is likely not reflected in the prices cited by the industrial customers. For example, Allegheny Power's utility affiliate in West Virginia currently has a fuel price increase pending before West Virginia regulators that would increase industrial rates by nearly 30%.[15]

[13] Even the American Public Power Association, another critic of wholesale markets, essentially acknowledges in its testimony that the percentage increase in prices is similar in restructured and non-restructured states. Testimony of Susan Kelly, p. 3.

[14] Testimony of Joseph Bowring, p.4.
[15] Monongahela Power Co. and Potomac Edison Co., Case No. 08-1511-E-GI.

When all the facts are considered, the industrial customers have not shown that restructuring and wholesale pricing rules have caused prices to rise more than they would have under cost-of-service regulation.

Conclusion

EPGA respectfully requests that the Commission consider these reply comments in its deliberations on current and future wholesale electricity markets.

Respectfully submitted,

D L Biden

Douglas L. Biden
President

Terrance J. Fitzpatrick

Terrance J. Fitzpatrick,
General Counsel

Electric Power Generation Association
800 North Third Street, Suite 303
Harrisburg, PA 17102
(717) 909-3742