

## MEMORANDUM

To: William Whitehead, PJM Interconnection  
From: Dan Griffiths, Pennsylvania Office of Consumer Advocate  
Ezra Hausman and Paul Peterson, Synapse Energy Economics, Inc  
Date: November 30, 2006  
Re: Comments on TEAC market efficiency analysis assumptions

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We are pleased to present these written comments regarding the Market Efficiency Analysis assumptions presented at the TEAC meeting on October 30, 2006.

As we have stated previously, we support PJM's efforts to develop a modeling approach to support its analysis and maximization of the economic (market efficiency) benefits of PJM-directed transmission investments. We believe that such modeling and analysis are a critical and essential part of PJM's responsibility to plan for a reliable bulk power system that can deliver the most cost-effective services to end use customers.

We have some specific comments regarding the presentation provided to the TEAC on October 30. These are initial comments that we have at this time. We will continue to review and evaluate future presentations to both the Reliability Planning Process working group and to the TEAC in the coming months. We intend to be active participants in the development of the market efficiency analysis and we anticipate that we will have additional comments in the future.

Our current comments are as follows:

- We support the general concepts outlined in the beginning of the presentation regarding the study years and sensitivity analyses. As others suggested at the meeting, the consideration of impacts on capacity costs must go hand in hand with the market simulation tool that is briefly described on slide 66 of the TEAC presentation in order to fully evaluate all of the economic benefits of transmission upgrades.
- We have no specific comments at this time about the PROMOD IV model from NEA that will be used analyze the system. We will continue to review this model and share any concerns with you should they arise.
- We support PJM's efforts to include emissions costs scenarios (high and low, Slide 68). However, we think PJM should include some way to estimate the impact of future carbon emissions costs as well. Even if there is not agreement on the value to use at this time, the model should have the capability to include carbon values as they are developed in light of the growing potential for state-level and, possibly, national level carbon limits, and the profound impact this is likely to have on electric sector economics and dispatch.
- As others noted during the meeting, the base fuel prices used in the Fuel Price Scenarios should be adjusted for each location or zone.
- We support the use of a range of fuel prices for sensitivity analyses. However, experience has shown that the range provided by EIA has invariably been

unrealistically narrow, such that actual natural gas prices almost always fall outside of this range within a couple of years. (In the case of the last AEO, actual prices were far above EIA's "high" case before the document was published.) We believe that PJM should assume much greater fuel price uncertainty ranges than those provided by EIA, in order to investigate the robustness of transmission alternatives with respect to very different (but possible) fuel price scenarios.

- We join the comments of many others at the meeting that the generation scenarios identified on Slide 77 be expanded to include various IRM values (low, current, and high) as well as retirement scenarios.
- Lastly, the discount rate values proposed for sensitivity analysis (Slide 84) are too narrow, in our judgment. We suggest a range of plus/minus two percent from the base case that is selected.

Thank you for this opportunity to provide comments. We intend to closely monitor the modeling assumptions related to the Market efficiency Analysis as they are developed by PJM over the coming months.