

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

**Capacity Markets in the PJM Region )**

**Docket No. PL05-7-000**

**PREPARED STATEMENT OF JONATHAN F. WALLACH  
ON BEHALF OF  
THE MARYLAND OFFICE OF PEOPLE'S COUNSEL**

**June 16, 2005**

My name is Jonathan Wallach. I am Vice President of Resource Insight, Inc., an economic consulting firm based in Arlington, Massachusetts. I offer this statement on behalf of the Maryland Office of People's Counsel, one of the proponents of the EITCC construct.

My comments address two procurement aspects of the proposed RPM construct: (1) the sloped demand curve; and (2) the centralized forward procurement process, as it affects Maryland Standard Offer Service.

**Demand Curve**

Unlike RPM, the EITCC construct does not rely on an administratively determined sloped demand curve to clear its capacity auctions. The explanation for this difference is fairly straightforward: the demand curve is the wrong solution for a non-existent problem. PJM's simulation modeling of the RPM construct shows that implementation of demand curves will likely lead to inefficient outcomes and substantial economic harm to consumers.

Proponents of the demand curve argue that demand curves promote general resource adequacy in the long-term by providing a stable price signal for new investment. According to proponents, prices under the current construct tend to oscillate between high and low extremes, clearing at the Capacity Deficiency Rate when the system is short and at near-zero levels when the system is long.<sup>1</sup>

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<sup>1</sup> This purported phenomenon has been characterized as "prices falling off a cliff" or as "binary market prices."

Proponents further argue that this extreme price volatility exacerbates investor risk, thereby stifling development of new capacity in PJM. According to this logic, the demand curve overcomes this financial barrier to new entry by stabilizing clearing prices over the long term.

The problem with this argument is that it does not jibe with experience in PJM. As reported by PJM's Market Monitor, prices in the multi-monthly auctions in the last three years have averaged between \$20/MW-day and \$40/MW-day, not zero, even though the system has been in excess during this period.<sup>2</sup> Moreover, neither capacity-price volatility nor excess conditions appear to have troubled investors in PJM: over 15,000 MW of new capacity have been added to the system in the last five years, and an additional 15,000 MW of new projects are queued up for interconnection over the next five years.

One possible explanation for investors' apparent indifference is the fact that there is a vibrant bilateral market in PJM that allows parties to efficiently allocate price and other risks. In fact, over the last few years, more than 95% of the capacity obligation for the PJM system has been met with bilateral transactions.

Be that as it may, reducing investor risk is a laudable goal, since less risk could translate into lower financing costs and, hence, lower capacity costs to consumers. Unfortunately, demand curves, at least as proposed for RPM, are an inefficient means to this worthwhile end.

In the short-term, while the system is long, the RPM demand curves will procure excess supply at prices that exceed the marginal value of that excess capacity.<sup>3</sup> These above-value payments lead to inefficiencies in resource allocation, retaining excess capacity that should be either sold into higher-value markets outside PJM or shut down. PJM's simulation modeling of RPM indicates that the wealth transfer from load to suppliers from these short-term inefficiencies could easily exceed \$1 billion per year.<sup>4</sup>

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<sup>2</sup> PJM Interconnection, LLC, *2004 State of the Market Report*, March 8, 2005, p. 162. Although prices in the daily auctions have on average cleared at much lower levels, the bulk of the trading activity occurs in the multi-monthly auctions.

<sup>3</sup> Prices exceed marginal value when the system is long because prices on the RPM demand curve are higher than the value of lost load for all quantities in excess of IRM.

<sup>4</sup> This estimate is based on a preliminary analysis of the RPM simulation results. In a February 23, 2005 presentation, PJM committed to providing the data needed to

In the long-term, the RPM demand curves apparently expose investors to excessive price risk. According to the equilibrium modeling of the RPM construct conducted by Johns Hopkins University for PJM, investors will require a 20% return on equity to induce sufficient investment to meet system adequacy requirements.<sup>5</sup> In contrast, PJM estimates that a 12% ROE is normally adequate to induce investment in new peaking capacity.<sup>6</sup>

Unlike RPM, the EITCC construct induces efficient risk minimization and allocation and promotes general resource adequacy by facilitating voluntary long-term bilateral capacity transactions. As this Commission has heard from the investment community, such contracts mitigate the risks and reduce the costs of investment in new generation capacity.<sup>7</sup> If more active intervention is deemed necessary to maintain general resource adequacy, the solution is not reliance on inefficient demand curves, but a construct whereby PJM directly procures new

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definitively estimate the RPM cost impact by February 25, 2005. PJM has not yet released this data.

<sup>5</sup> This result cannot be legitimately compared to Johns Hopkin's simulation of a vertical demand curve case, since this latter case relied on flawed input assumptions that overstate likely volatility, and thus required return, under a vertical-curve construct. Specifically, the vertical-curve case erroneously assumed that bids for new capacity would be priced below investment cost, forcing the auction to clear at prices that are too low for profitable investment in following years. The model responds to these low clearing prices by simulating an investment bust cycle, creating shortage conditions that drive energy prices to scarcity levels and capacity prices to deficiency levels. These high price levels, in turn, give rise to an investment boom cycle. This erroneous assumption thus forces the vertical-curve case to oscillate between boom and bust prices.

<sup>6</sup> Consultants to ISO-NE and the NYISO also estimate required returns in the 12%-13% range.

<sup>7</sup> For example, see the testimony of Frank Napolitano, Lehman Brothers, Inc., at the February 4, 2004 technical conference in Docket No. PL04-2:

The contract would mitigate risks that are the unknowns, therefore, the equity capital that will flow against the debt to round out the capital structure will inherently have less risk, and therefore, should theoretically charge less of a return. That's a way of bringing low-cost resources.

capacity on behalf of load, similar to the EITCC mechanism for addressing deliverability issues in small areas.

### **RPM Impact on Maryland Standard Offer Service**

Under the RPM construct, PJM will procure capacity on behalf of all load in PJM to meet system capacity requirements four years in the future. This centralized procurement not only establishes a four-year forward price for capacity, but also effectively creates a four-year forward obligation on load-serving entities to purchase capacity at the four-year forward price.

This four-year forward obligation is incompatible with the provision of standard-offer service in the State of Maryland. Maryland utilities that provide standard-offer service will not be able to hedge the price risk associated with this forward obligation, since they are effectively precluded by statute and regulation from procuring capacity (in order to hedge the obligation) more than three years in advance of the delivery year. Instead, SOS customers will be fully exposed to capacity-price risk as a flow-through component of SOS prices.