UNITED STATES OF AMERICA

FEDERAL ENERGY REGULATORY COMMISSION

Demand Compensation in Organized Wholesale Energy Markets	Docket No. RM10-17-000

STATEMENT OF ANDREW L. OTT

PANEL DISCUSSION AT THE COMMISSION'S TECHNICAL CONFERENCE

SEPTEMBER 13, 2010

Good morning, I am Andrew L. Ott, Senior Vice President, Markets, PJM Interconnection, L.L.C. I appreciate the opportunity to appear before you today to discuss the benefits of Demand Response in the regional grid and market operations.

Economic and Capacity-based demand response clearly provides benefits to regional grid operation and the wholesale market operation. The PJM capacity market has attracted nearly 13,000 MW of demand resources offered, over 9,200 MW have cleared. Up to 16 percent of the synchronized reserve supply has been provided by demand resources. Although the amount of economic demand response cleared has significantly dropped since July 2008 due to the economic downturn, the amount of economic demand response registrations remain at levels over 2,000 MW. These demand resources provide benefits by providing valuable alternatives to PJM in maintaining operational reliability and in promoting efficient market operations. RTOs can estimate the benefits of demand resources in the aggregate market for aggregate time periods from both a reliability and economic perspective. Therefore it is feasible to

establish a relatively static, monthly or seasonal metric to assess potential aggregate market and/or operational benefit. I believe developing a systematic method to assess aggregate benefit would provide valuable, transparent information for all market participants. RTOs appear to be in the best position to establish and implement such systematic methods. Although we can establish transparent methods to quantify benefits, we should be cautious about using them to establish compensation thresholds in order to avoid creating inefficiencies and unintended incentives as discussed below.

The implicit proposition behind developing a benefits test for demand response compensation is that specific beneficiaries for specific time periods can be easily identified. Presumably the beneficiaries would be other energy consumers not engaging in demand response, but who are apparently benefitting from reduced prices in the PJM Energy market. However, identifying these specific beneficiaries is nearly impossible in practice. This is difficult for two reasons. First, it is not practical to rerun market results with and without demand resources with sufficient granularity to accurately identify specific beneficiaries for specific hours. The second reason is that wholesale customers may not directly benefit from reduced prices because they may already be hedged through forward contracts or other mechanisms such that they do not actually realize benefit from the reduced prices in the Energy Market that result from demand response. As a practical matter there is no way to observe what type of contract or hedging instrument each energy consumer has acquired. A requirement to obtain such information from all consumers would be burdensome on market participants and RTOs and would be cost prohibitive to implement. Practically, such requirements are not feasible as energy consumers may have contracts and hedging

instruments of varying lengths with different terms and conditions that could vary from one day to the next making it prohibitive to determine the actual beneficiaries of demand response with any accuracy.

A granular benefits test may also be harmful because it will create perverse incentives. For example, a customer who proactively hedges their market exposure pays some premium to acquire a fixed price contract. If such a customer is incorrectly identified as a beneficiary and is allocated costs, they would be unduly burdened because they prudently hedged and would have an incentive to discontinue hedging practices which will reduce forward contracting and harm the overall efficiency of forward markets.

As indicated in our previous comments, we realize that the proposal to make direct, explicit payments to demand response providers at the prevailing wholesale market price for energy for reductions may be appropriate under some retail rate structures, but likely inappropriate under other retail rate structures. The current compensation mechanism in PJM of making direct payments of the prevailing locational marginal price (LMP) less the generation and transmission portion of the retail rate is premised upon retail rate structures that are inappropriate for explicit payments to demand response providers at the prevailing wholesale market price. I believe that effective coordination between the wholesale prices, demand response compensation and retail rate structures is required to ensure economically efficient incentives for, and compensation to, demand response in wholesale markets.

Innovative retail rate design and wholesale market coordination will also enable the broad development of Price Responsive Demand (PRD). PRD is the automated customer response to prices that is enabled through innovative retail rate designs and smart grid technologies. PJM believes that comprehensive PRD development is critical to fostering the growth of demand-side innovation in the industry. PJM has worked with states to adapt and update our Demand Response Roadmap to include PRD concepts. We have worked within the PJM stakeholder process to develop draft market rules to support PRD development in the PJM market. Unfortunately these rules do not appear to have sufficient stakeholder support due to competing interests.[1] Additionally, PJM is in the process of upgrading our real-time dispatch and technical software to support the deployment of automated, distributed, resource innovations like PRD, storage and other technologies.

Under PRD, energy will only be consumed when the consumer value placed on it is greater than or equal to the LMP. The "compensation" to the demand-side under PRD for not consuming energy is simply the avoided cost of not consuming energy which is LMP. In conjunction with the well developed retail rate design, PRD will lead to efficient market outcomes that maximize the benefits (gains from trade) to all market participants. From an efficient market design and market outcome perspective, PRD should be the ultimate goal.

[1] In compliance with the paragraph 93 of the Commission's Order on Compliance Filing issued on December 18, 2009 in Docket Nos. ER09-1063-000 and ER09-1063-001, on September 20, 2010, PJM will be submitting its second informational filing concerning the status of PJM's efforts to work with PJM stakeholders, including state regulators, to better integrate the impact of PRD on wholesale market operations.

Until the recent developments in cost-effective smart grid technologies that facilitate "smart metering" and "prices to devices" allowing consumers to pre-program energy consuming devices such as air conditioners or water heaters to respond directly to the market prices of energy, the goal of PRD was not practical. But now smart grid technology is being rolled out across the United States, including parts of the PJM footprint, and the goal of PRD that empowers consumers to decide at how much energy to consume at various prices can become a reality.

With appropriate coordination and technology deployment, which is the desirable end state, a net benefits test for the purpose of compensation becomes unnecessary. Thank you for the opportunity to participate in this important discussion, I will be happy to answer any questions you may have.