

participation by demand response in emergency events. We believe that PJM will be the first Regional Transmission Operator to fully integrate demand response into the ancillary services market.

As of today, PJM has two primary demand response programs -- the PJM Emergency Load Response Program and the PJM Economic Load Response Program. The Emergency Load Response Program is designed to provide a method for end-use customers to be compensated by PJM for voluntarily reducing load during and emergency event. As of mid-December, 2005 there were 1,619 MW of resources active in the Emergency Program. This is a slight increase of 4 percent from the 1,561 MW of resources registered in 2004.

The PJM Economic Load Response Program (ELRP) is designed to provide direct access to the PJM day-ahead and spot energy markets to curtailable loads through agent members of PJM. ELRP participants may self-schedule load reductions in real time, provide bid information so that PJM can dispatch load reductions in real time, or offer load reductions day-ahead. ELRP currently includes incentives payments designed to encourage load reductions when the locational marginal price (LMP) is equal to or greater than \$75/MWh. While the recent filing proposes to make ELRP permanent, the incentive structure would remain set to expire at the end of 2007. PJM and its stakeholders will review, prior to expiration, the ongoing necessity of the incentives and consider extension or modification. As of mid-December, 2005 there were 2209 MW active in the ELRP. This is a 19 percent increase from the 1861 MW cumulative total registered at the end of 2004.

Q: What have been the successes, challenges and barriers associated with demand response and time-based rates in your region?

A: The growth of registrations that I just described demonstrates the positive contribution to demand response made by the PJM Emergency and Economic Load Response Programs. Although protests have been filed on certain details, overall

stakeholder support for the demand response market initiatives that I also described demonstrates significant progress in acceptance of the role of demand response in wholesale electric markets.

PJM believes, however, that challenges remain in bridging the gap of short-run price-based dispatch made at the wholesale level with longer-run price purchase decisions of retail customers. PJM does not believe that there is a single all encompassing solution to integrating demand response fully into the wholesale or retail markets. Part of the solution will be to continue reducing barriers to market participation and PJM remains committed to removing these barriers that may remain in the wholesale market. Other important elements including retail pricing structures and the deployment of new technologies should also be addressed.

Specifically, PJM does not believe that sufficient demand response can be fostered from non-hourly meters. Rather, the broader adoption of hourly or more discrete recording meters is a necessary step to increase demand response activities in wholesale markets. Future market advances, and further integration of new technology into the system, may otherwise be limited unless the metering infrastructure is in place to enable measurement of demand response.

In addition PJM believes that improved coordination of wholesale and retail approaches to demand response will remove remaining regulatory barriers for customer participation in demand response, peak reduction, and critical period pricing programs. PJM is currently involved in addressing these issues in a working group process called the Mid-Atlantic Distributed Resources Initiative (MADRI). Comments offered by MADRI to the Commission for this process offer many insights into these hurdles.

Q: What is the role of demand response resources in regional planning and transmission planning in your region? What steps have been taken to incorporate demand resources into these plans?

A: In terms of regional planning, PJM estimates that demand response capacity (known in PJM as active load management or ALM) could reliably provide up to 7.5% of the summer peak. Historically, however, a much smaller percentage of loads have been willing to offer curtailability in return for the capacity credit offered by ALM. Active load management is the current framework for participation of demand resources as resources that ensure capacity adequacy. The 7.5% value is based on loss of load studies that analyze the number and duration of curtailments required of demand resources that participate in active load management. Demand resources have historically provided between 1 and 3% of PJM's total capacity obligation. Active load management reduced the 2005 summer peak by 2,042 MW, with an associated reduction in the pool's resource requirement of 2,195 MW of unforced capacity, or about 1.5% of the total.

PJM believes that our greatest challenge is to determine the appropriate level of demand response for consideration in long term planning and ways to signal its value on a forward basis. As such, through its Reliability Pricing Model (RPM), PJM is seeking longer term four year forward contracting for capacity that would also be available for demand resources.

While demand response is implicitly included in the current PJM regional transmission planning and operational processes through the use of estimated demand response capacity and reduced or "restricted" load forecasts, the grid reliability planning process is intended to deal with failures of the supply and/or demand sides of the markets to solve constraints in the grid prior to the violation of applicable reliability criteria. When these violations are identified, PJM is charged with recommending a transmission system enhancement that will solve the violation. That last step in the planning process includes neither supply nor demand side solutions as alternatives. While either option may in some instances be more economic alternatives, additional enhancements to our

planning process, which are now actively under discussion in the stakeholder process, are needed. Only when the market fails to deliver sufficient resources despite available economic signals does PJM take this action. PJM is working to consider market driven options for generation and demand resources, but not options that would formalize an integrated resource planning process.