

**FERC Technical Conference on Demand Response and Advanced Metering  
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Comments Offered by the New York Independent System Operator (NYISO)  
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The NYISO thanks the Federal Energy Regulatory Commission for the opportunity to provide these comments on our experience with demand response programs in New York.

**Status of NYISO Demand Response Programs**

Since its inception in December 1999, the NYISO has provided opportunities for demand response resources to participate in our markets. The ICAP Special Case Resources (SCR) program was developed as part of the original market design, and allows customers meeting certification requirements to offer unforced capacity (UCAP) to Load Serving Entities (LSEs). Resources are obligated to curtail when called upon to do so with two or more hour's notice, provided that they were notified the day ahead of the possibility of such a call.

A second reliability-oriented program, the Emergency Demand Response Program (EDRP), provides resources an opportunity to earn the greater of \$500/MWh or the prevailing LBMP for curtailments provided when the NYISO calls on them. There are no consequences for enrolled participants that fail to curtail. Participants can register for EDRP or ICAP/SCR but not both programs.

The Day-Ahead Demand Response Program (DADRP) provides retail customers with an opportunity to bid their load curtailment capability into the day-ahead spot market as supply resources. Customers submit bids by 5:00 a.m. specifying the hours and amount of load curtailment they are offering for the next day, and the price at which they are willing to curtail. A bid floor price of \$75/MWh is currently in effect. DADRP program participants may specify minimum and maximum run times and effectively submit a block of hours on an all or nothing basis, which makes them eligible for production cost guarantee payments that make up for any difference between the market price during that block of hours and their block bid price. Load scheduled in the day-ahead market is obligated to curtail the next day. Failure to comply results in the imposition of a penalty defined by the MW curtailment shortfall times the greater of the corresponding day-ahead or real-time market price.

From May 2001 to December 2005, registration has grown from approximately 200 MW to 1400 MW; the number of end-use customers participating has increased from roughly 200 in March 2002 to 2300.

Since the summer of 2001, the NYISO has activated these programs a total of eleven times: four times each in 2001 and 2002, twice in 2003 (during the August blackout restoration) and once in 2005. Six of these events were called statewide; the remaining events were called in eastern and southeastern Zones (F-K) in various combinations. Program performance is fully described in the NYISO's semi-annual demand response evaluation reports to FERC under Docket No. ER01-3001-00.

**Successes, Challenges and Barriers Associated with Demand Response**

From the inception of NYISO's demand response programs, the New York State Public Service Commission (NYSDPS) has been instrumental in assuring that regulated entities offer programs consistent with NYISO program designs. In addition, the New York State Energy Research and Development Authority (NYSERDA) has offered innovative programs to assist program participants with interval metering, load reduction strategies, and emergency generator tune-up and emissions testing. New York stakeholders in all sectors have worked together to craft market rules that are equitable and effective.

The growth of aggregation organizations offering demand response services indicates that demand response can be a viable business model in New York. Roughly half of the megawatts in the ICAP SCR program are currently registered with aggregation organizations.

The growth of program registrations in all programs indicates that these programs can be financially attractive to participants while not placing undue metering and reporting burdens on them. Beyond program registration, demand resources have performed reliably during events, achieving up to 900 MW of load reduction and providing a significant impact during reserve deficient periods. Demand response resources were instrumental in assisting with load restoration subsequent to the August 2003 blackout by remaining off-line, or at low consumption levels, while electricity was restored to other customers in their area.

With increased registration in demand response programs, it is necessary to maintain a reasonable balance between program payouts (particularly those related to capacity payments) and performance obligations. Lack of familiarity with specific rules and/or program aggregators' uneven emphasis on certain program features have sometimes resulted in participant expectations that differ from actual program design. As an example, the NYISO's SCR program requires that participants respond when provided a two-hour notice. While the NYISO also provides a day-ahead advisory, it may not provide a two-hour in-day notice and activate the program if adverse system conditions do not materialize. Some participants have taken action in response to a day-ahead advisory, claiming that two hours is inadequate for their particular response, and suggesting they be paid for their actions in response to the advisory. Such actions blunt the operational effectiveness of the program and create an unfair playing field for those resources that can respond within two hours. The NYISO will work with aggregators to ensure that participants are capable of complying with all program requirements

Another challenge faced by demand response programs is the need to design programs that balance the capabilities of emergency backup generators with environmental consequences. The NYISO firmly believes that the current fleet of emergency backup resources should not participate in economic demand response programs unless they carry the environmental permits required of regularly operating resources. Future economic program designs will need to take into account environmental requirements that are likely to be imposed based on the vintage of equipment that may participate. In contrast, the NYISO would like to see that quick response of emergency backup generation be allowed to participate in programs designed to maintain system reliability as long as these resources are used infrequently.

#### **Role of Demand Resources in Regional Planning and Transmission Expansion Planning**

The New York State Reliability Council (NYSRC) performs an annual study to determine the installed capacity requirements for the New York Control Area. As part of this study, both EDRP and SCR resources are modeled. The study for the 2006-2007 period is reaching completion; the approved 2005-2006 study assumed 975 MW of SCR capacity, 299 MW of EDRP resources in July and August and lesser amounts during other months.

The NYISO's Comprehensive Reliability Planning Process (CRPP) recognizes the contribution that demand response can provide to the planning process. Existing and planned demand response programs are factored into the annual reliability needs assessment. If the results of any assessment indicate a reliability need exists, both market based and regulated demand response options will be considered along with new transmission or generation options. The NYISO is currently in its first year of experience with the CRPP and is looking to develop measures that establish milestones and timetables to track progress for new demand response options.