



get more from energy

Demand Response in New York

- Recommendations for The Next Phase

*Price Responsive Load Working Group Meeting
December 8, 2006*

Background

NYISO has robust demand response resources at its disposal that have proven their value over the past five years. Heavy program utilization in 2006 has revealed areas to enhance the programs.

- **Phase I – Create the Tool**

- 2001: NYISO introduces EDRP and DADRP

- **Phase II – Use the Tool**

- 2002-2005 – NYISO and third-party providers grow the programs, learn lessons
- 2006: Heavy program usage and strong performance
 - 5 event days – most ever
 - 34 event hours – most ever
 - 23 GWh curtailed (NYISO estimate) – most ever

- **Phase III – Refine the Tool**

- 2006 – Fine-tune, sharpen performance measurements
- 2007 – Open ancillary service markets to DR
- 2008 – implement IBCS, refine aggregation options, synchronize SCR and EDRP baselines, allow better-targeted program activations

Automate and accelerate performance reporting,

- 2006 Events Resulted in Data Overload
 - Huge volume of capacity and energy event data
 - Last-minute/late submissions
 - = Late Settlements
 - = Unhappy Customers
 - = Reduced Enrollment?

Recommendation #1:

Replace the current manual data submission process with an automated, internet-based system that interfaces with Phase II of the ICAP Automation system

Allow RIPs to better manage their own portfolios,

- Asset by asset performance varied significantly in summer 2006
- The current derating formula is calculated on an asset by asset basis and is capped at 100% within and across events, as a result, some resources will be derated for summer 2007 *regardless of overall performance by the RIP's portfolio in 2006*
- Thus, a RIP's revenue stream for a portfolio of assets will decrease in 2008 *regardless of overall portfolio performance*
- This result is contrary to the intent of aggregation, which is to incentivize RIP's to create a portfolio of assets with stable performance
 - Analogous to NYISO derating a power plant on a turbine by turbine basis rather than on total output

Recommendation #2: Apply a portfolio-wide Performance Factor (PF) for RIPs' existing assets on a zone-by-zone basis

- This is consistent with emerging industry practices, including SCR ICAP deficiency calculations and the California Capacity Bidding Program

Align capacity value with real-time performance,

- Detailed performance data is not yet available, BUT...
- We believe that data will reveal significant “free riding”
 - Telltale signs for a given resource/customer
 - load generally below CMD
 - load often above CBL
 - high Performance Factors for 2007
 - low energy payments in 2006
- We believe that the APMD approach is inherently flawed:
 - It pays some RIPs despite no response to ISO program activations
 - It underpays others for providing real value
 - It has no relevance to operational needs
 - It is inconsistent with standard industry practice

Recommendation #3:

Use the EDRP CBL approach to determine ICAP/UCAP Translation Factors and eliminate APMD from the SCR program altogether

And target DR Resources more accurately

- 414 MW of EDRP and SCR resources were activated on July 19, 2006, however NYISO reports that only 13 MW — 3% — was located in the LIC network where the load relief was needed
- NYISO and ConEd agree that these resources were activated solely in response to ConEd's request to relieve pressure on the LIC network
- Zone J LSEs and their customers could pay as much as \$2 million for \$65k worth of reductions (i.e., a sledgehammer was used, where a scalpel was needed)
- We can do far better; demand response can be targeted much more precisely than that

Recommendation #4:

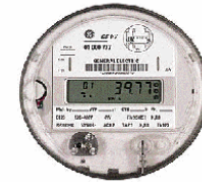
Transmission owners or the NYISO, at a TO's request, should have the ability to activate resources in specific sub-zones, counties, or towns; this will be greatly facilitated by Recommendation #1

Appendix:
ISO-New England's IBCS Training Slides

Internet Based Communication System (IBCS)

- 2-Way Communications between ISO New England and the Customer.
 - Event notification
 - 5-Minute meter readings
 - Web access to meter data, wholesale prices and demand response performance
 - Required for 30-Minute and 2-Hour Demand Programs, Optional for Price Program
- Developing “Open Solution” to allow multiple suppliers of reporting and information services.

Other Metering Options



- **Low Tech Option:**
 - Meter data reported to ISO New England by Enrolling Participant within 36 hours for every day.
 - May be able to use existing meter and communication system.
- **Super Low Tech Option:**
 - Meter data reported to ISO New England by Enrolling Participant within 3 months of an event day.
- **Customized Monitoring & Verification (M&V):**
 - Enrolling Participants can propose a M&V plan specific to their customers and projects.