



NYISO Update

Summer 2011 Review and a Look Ahead

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New York Independent System Operator*

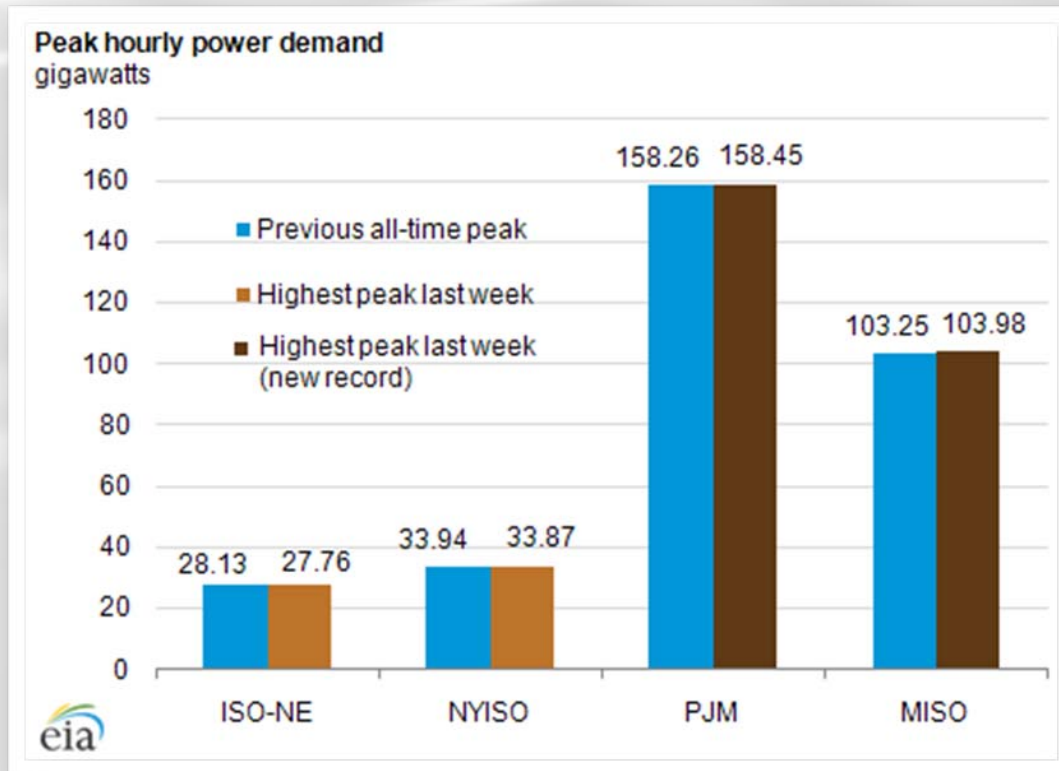
Multiple Intervenors Annual Meeting

*Verona, NY
October 6, 2011*

Topics

- ◆ **Summer 2011**
- ◆ **Grid Infrastructure**
- ◆ **Market Metrics**
- ◆ **Consumer Initiatives**

July 2011 Heat Wave

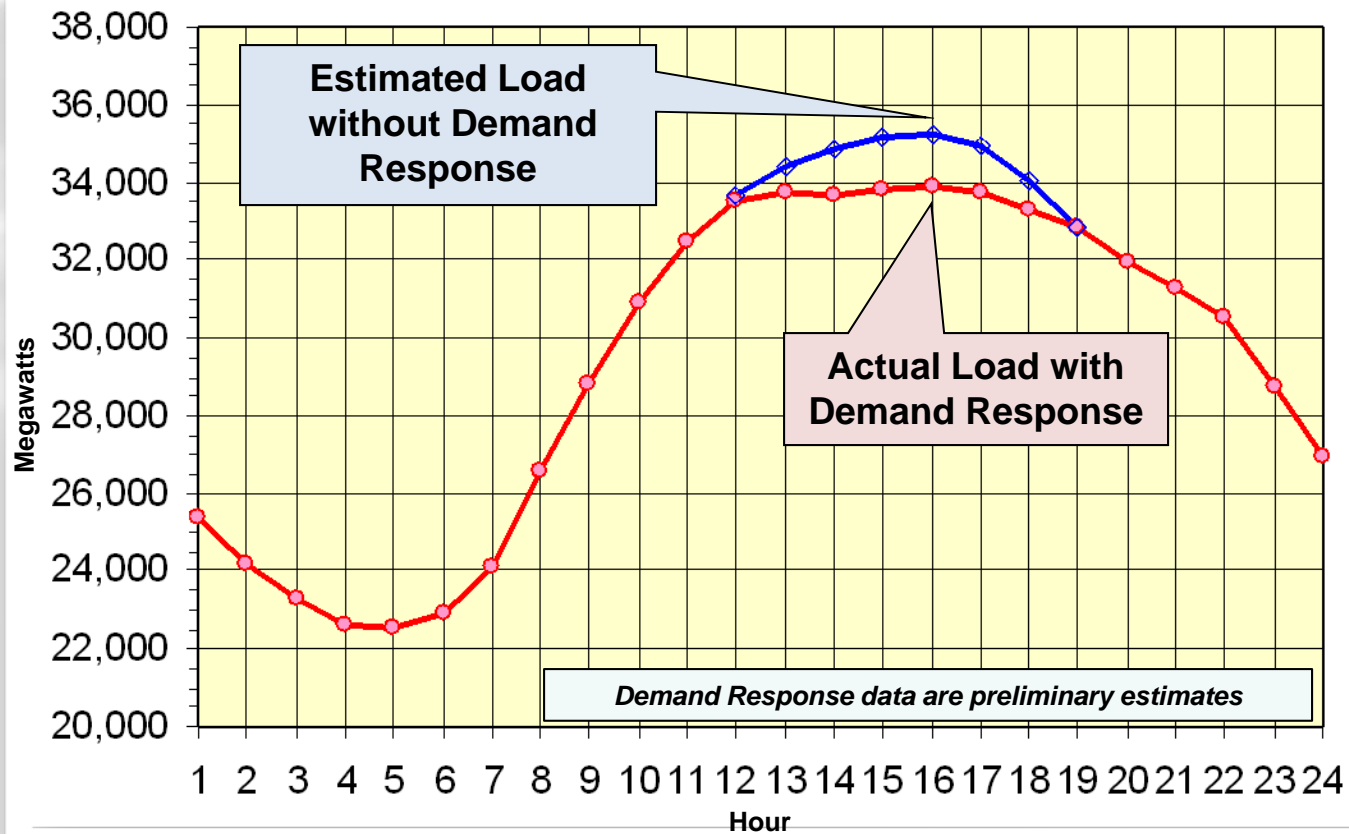


- MISO and PJM set new all-time peak load records
- ISO-NE reported its second highest peak load
- NYISO missed all-time record peak by only 74 MW

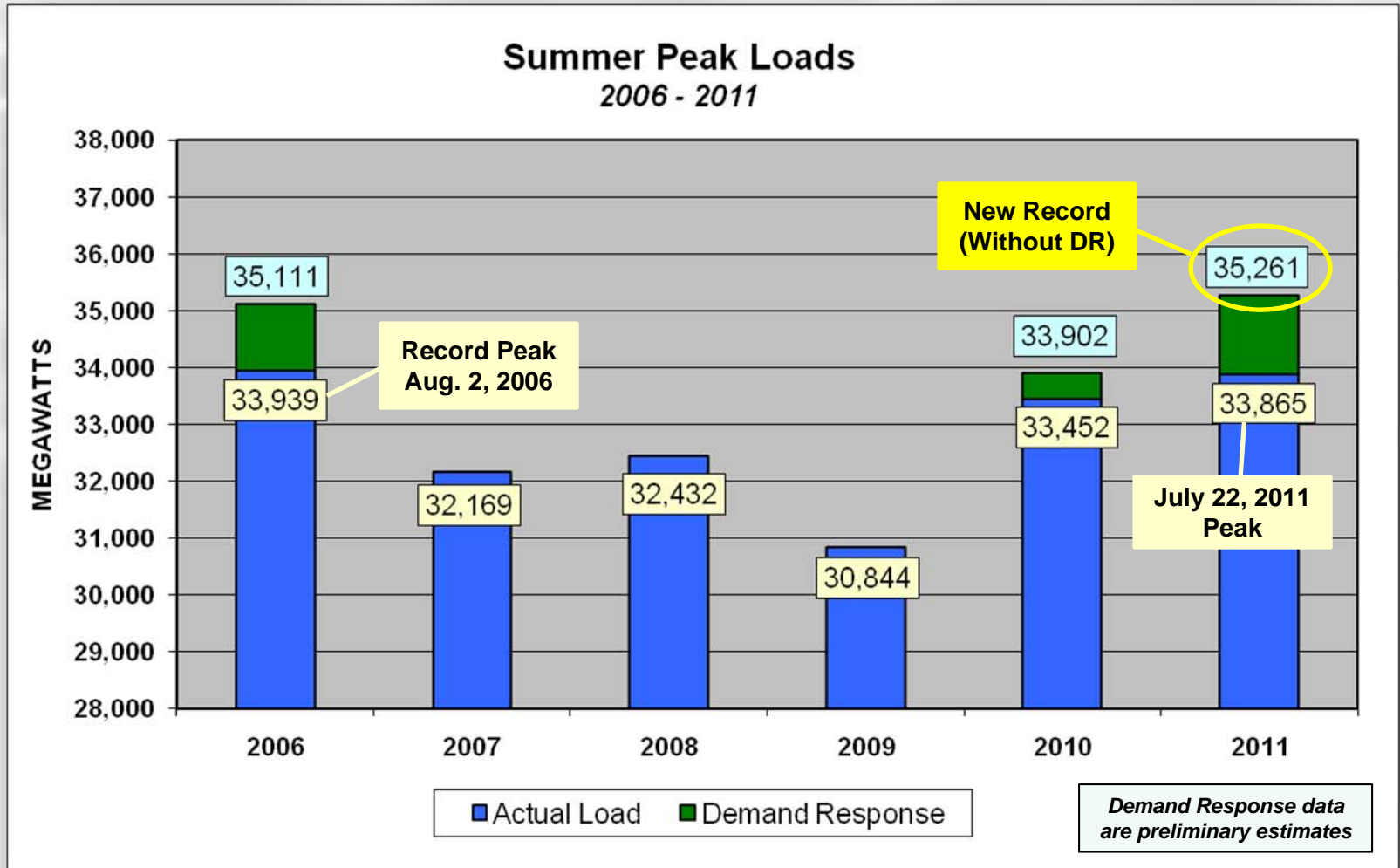
Source: U.S. Energy Information Administration based on regional transmission organization and Ventyx Energy Velocity Suite data. **Note:** Data collated from websites for the ISO New England, the New York Independent System Operator, the PJM Interconnection, and the Midwest Independent System Operator. MISO and PJM claim new all-time peak records based on estimated adjustments to their previous all-time peak demand records reflecting changes their system service areas since 2006.

Shaving the Peak

July 22, 2011 Load – New York Control Area



New Peak - Without DR



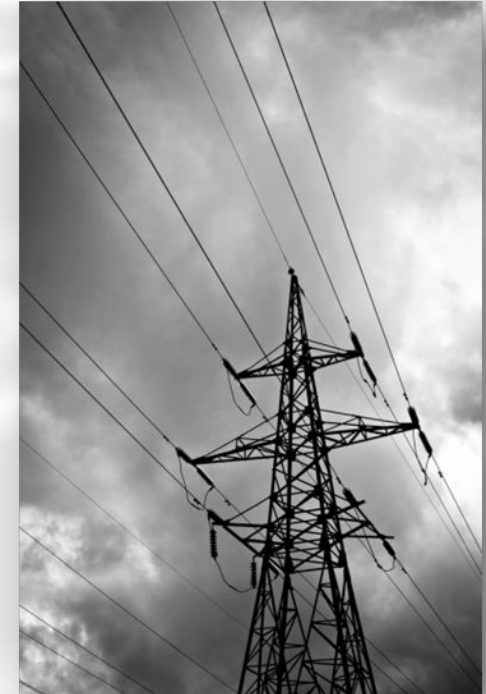
Hurricane Irene

◆ Preparations

- *All transmission line maintenance outages and generation scheduled outages were cancelled*
- *Coordinated with Northeast Power Coordinating Council (NPCC), New York Transmission Owners and Northeast Electric Gas Operating Committee*
- *Scheduled additional weekend control center staff, alternate control center staff, and other engineering, information technologies, and facilities support staff*

◆ Sunday, August 28

- *Alert State for severe weather declared -- 05:05*
- *Storm-related transmission outages included three 345 kV, one 230 kV and multiple 138 kV and 115 kV transmission outages*
- *Storm-related generation outages -- less than 1,000 MW (with majority related to transmission outages)*
- *Alert State for severe weather terminated -- 14:15*



Grid Infrastructure



- ◆ ***\$37 Million Smart Grid Investment***

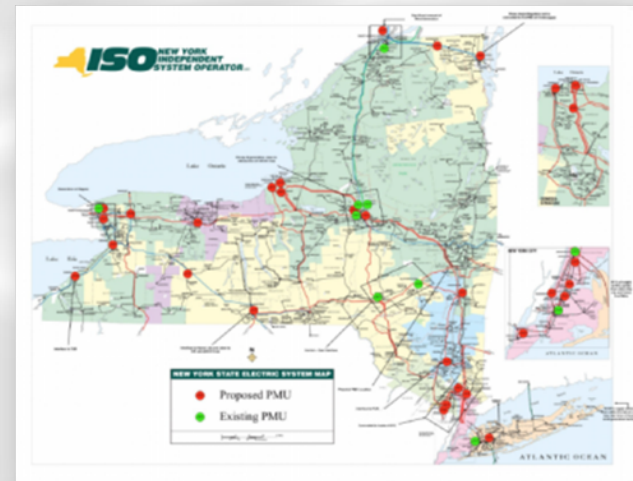
- ◆ ***Control Center Groundbreaking***



Smart Grid Investment

- ◆ **Smart Grid Investment Grant (SGIG)**
 - *NYISO and New York Transmission Owners*
 - *Three-Year project -- \$75 Million*
 - *DOE funding -- \$37 Million to cover 50% of project cost*

- ◆ **Project components**
 - *Creation of a statewide Phasor Measurement Network*
 - *Installation of Capacitor Banks throughout the state*



Control Center Project

- ◆ **New state-of-the-art primary control center in a facility adjacent to Krey Corporate Center in Rensselaer**
- ◆ **Renovation of Guilderland facility to serve as alternate control center**
- ◆ **Project costs -- \$35.5M**
- ◆ **Construction of 64,000-Sq.Ft. facility expected to take 36 months**



**Existing Krey
Corporate
Center**

**New Primary
Power Control
Center**

Market Metrics

2010 State of the Market Report findings...

- ◆ The energy, capacity, operating reserves, and regulation **markets performed competitively** in 2010
- ◆ **Energy prices rose 20%** from 2009 to 2010. These increases were primarily due to:



- *Higher fuel prices in 2010 – Natural gas prices rose an average of 11%, while residual fuel oil prices rose 30%, diesel oil prices rose 29%, and eastern coal prices rose 29%*
- *Higher load levels in 2010, particularly during the summer months, due to improved economic conditions and hotter weather*

Reducing Uplift

◆ 2010 State of the Market Report findings...

- **Net Schedule 1 uplift charges decreased 21%** -- from \$287 million in 2009 to \$228 million in 2010
 - *The most significant factor was a reduction in supplemental commitment for reliability in New York City.*
- **Balancing congestion residuals decreased 30%** -- from \$66 million in 2009 to \$46 million in 2010 due to:
 - *Improved operations during Thunderstorm Alerts*
 - *Better consistency between day-ahead and real-time constraint modeling in New York City*
 - *NYISO procedures to promptly evaluate the causes of balancing congestion residuals and to adjust market operations accordingly*

Lake Erie Loop Flow

- ◆ Average clockwise circulation around Lake Erie **declined 65%** -- from 240 MW in 2009 to 85 MW in 2010

“The Broader Regional Market Initiatives developed by the NYISO and other RTOs around Lake Erie will improve the efficiency with which these flows are managed.”

2010 State of the Market Report

Broader Regional Markets

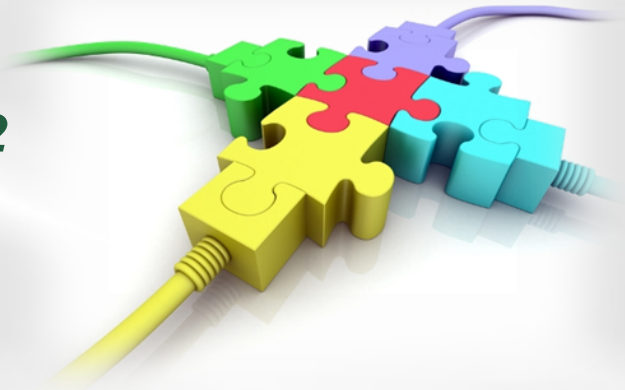


Collaborative effort with grid operators serving New England, Mid-Atlantic, Mid-West, Ontario and Quebec

- ***Regional production cost savings***
 - ***\$362 million/year***
- ***New York production cost savings***
 - ***\$193 million/year***

Broader Regional Markets

- **Inter-regional transaction coordination**
 - *NYISO/Québec measures activated in July (estimated annual savings -- \$20 Million)*
 - *NYISO/PJM -- in progress*
 - *NYISO/ISO-NE -- Inter-Regional Interchange Scheduling (IRIS) -- in progress*
- **Market-to-market coordination**
 - *NYISO/PJM – scheduled for Q4 2012*
- **Interface pricing revisions**
 - *Software – scheduled for Q4 2011*



Consumer Initiatives



- ◆ **Updated NYISO Mission Statement**
- ◆ **Consumer Liaison**
- ◆ **Consumer Impact Analysis**
- ◆ **Consumer Advisory Council**

NYISO Mission

The mission of the New York Independent System Operator, in collaboration with its stakeholders, is to serve the public interest and provide benefit to consumers by:

- *Maintaining and enhancing regional reliability*
- *Operating open, fair and competitive wholesale electricity markets*
- *Planning the power system for the future*
- *Providing factual information to policy makers, stakeholders and investors in the power system*

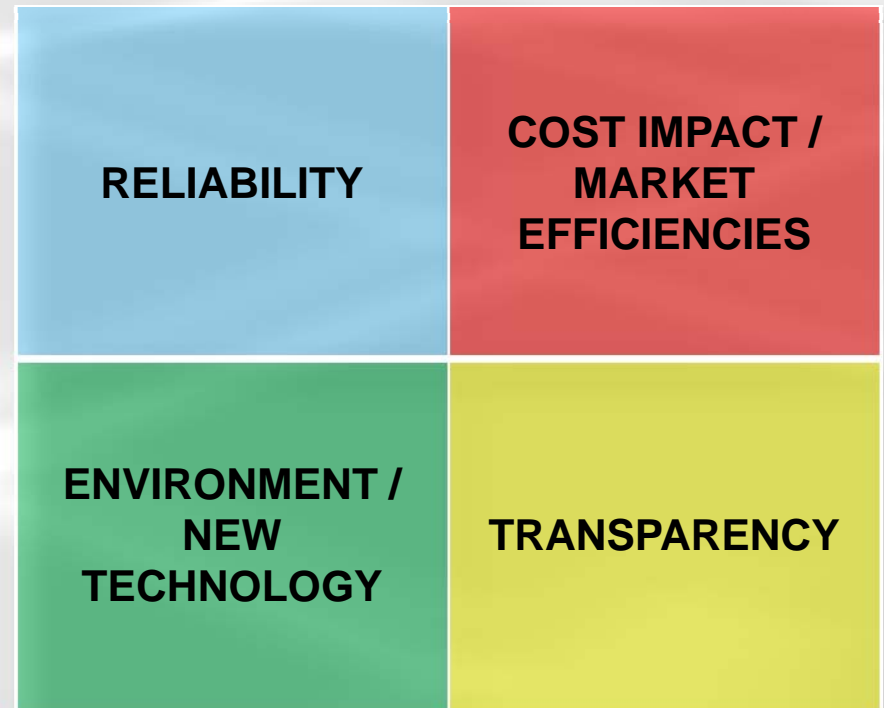
Consumer Liaison

- **Tariq Niazi named Consumer Liaison**
- **30-year veteran of NYS Consumer Protection Board**
- **Former Director of Utility Intervention Unit and Chief Economist of CPB**



Consumer Impact Analysis

- ◆ Intended to provide all market participants objective analysis of qualitative and quantitative consumer impacts prior to votes on proposed market rule changes in the NYISO shared governance process
- ◆ Proposed market rules will be reviewed for anticipated cost impact to consumers, changes in production costs, and their ability to attract new technologies or participants to the markets
- ◆ Highlight areas where consumers will realize lower energy costs, and show how investments may improve reliability, incentivize new technology or increase competition



Advisory Council

- **15-Member Panel to advise Board of Directors and recommend what the NYISO should be doing over the next decade -- and beyond -- to best serve New York's electricity consumers**
- **Inaugural meeting**
 - *August 15-16*
- **Next meeting**
 - *November 1-2*

NYISO Consumer Advisory Council

- James R. Adams -- Director of Utilities, Department of Energy & Sustainability, Cornell University
- Darrel J. Aubertine -- Commissioner, New York State Department of Agriculture and Markets
- Peter A. Baynes -- Executive Director, New York State Conference of Mayors and Municipal Officials
- J. David Brown -- President and CEO, Capital District YMCA
- William B. Eimicke -- Founding director of the Picker Center for Executive Education, School of International and Public Affairs, Columbia University
- Joel Eisenberg -- Oak Ridge National Laboratory Program Manager, Office Of Weatherization and Inter-governmental Program at DOE
- Fredrick W. Erlich -- CEO, Living Resources
- Frank Felder, Ph.D. -- Associate Research Professor And Director of the Center for Energy, Economic and Environmental Policy, Bloustein School of Planning and Public Policy, Rutgers University
- Michael B. Gerrard -- Director of the Center for Climate Change Law, Columbia Law School
- Carl Imhoff -- Manager, Electric Infrastructure Market Sector, Pacific Northwest National Laboratory
- Irene E. Leech, Ph.D. -- Associate Professor, Consumer Affairs, Virginia Tech, and president, Virginia Citizens Consumer Council
- Anastasia Song -- CEO, The Haugland Group
- Gerald Stokes -- Associate Director For Global And Regional Solutions, Brookhaven National Laboratory
- Rebecca Wingenroth -- Senior Account Manager, Electric Power Research Institute
- Randy Wolken -- President, Manufacturers Association of Central New York

ISO Energy Conference

Energy Synergy: Competition & Innovation

The NYISO and ISO-NE are jointly hosting an energy conference on the evolving role of competition and innovation in the Northeast electricity markets – with a focus on empowering consumers

November 1, 2011
New York City

www.isoenergyconference.com



Looking Ahead

- ◆ **Working together to:**
 - ***Sustain reliability***
 - ***Enhance market efficiency***
 - ***Optimize resources***
 - ***Plan for the future***



NEW YORK INDEPENDENT SYSTEM OPERATOR

The New York Independent System Operator (NYISO) is a not-for-profit corporation responsible for operating the state's bulk electricity grid, administering New York's competitive wholesale electricity markets, conducting comprehensive long-term planning for the state's electric power system, and advancing the technological infrastructure of the electric system serving the Empire State.

www.nyiso.com