



Power Alert II: New York's Persisting Energy Crisis

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*New York Independent System Operator
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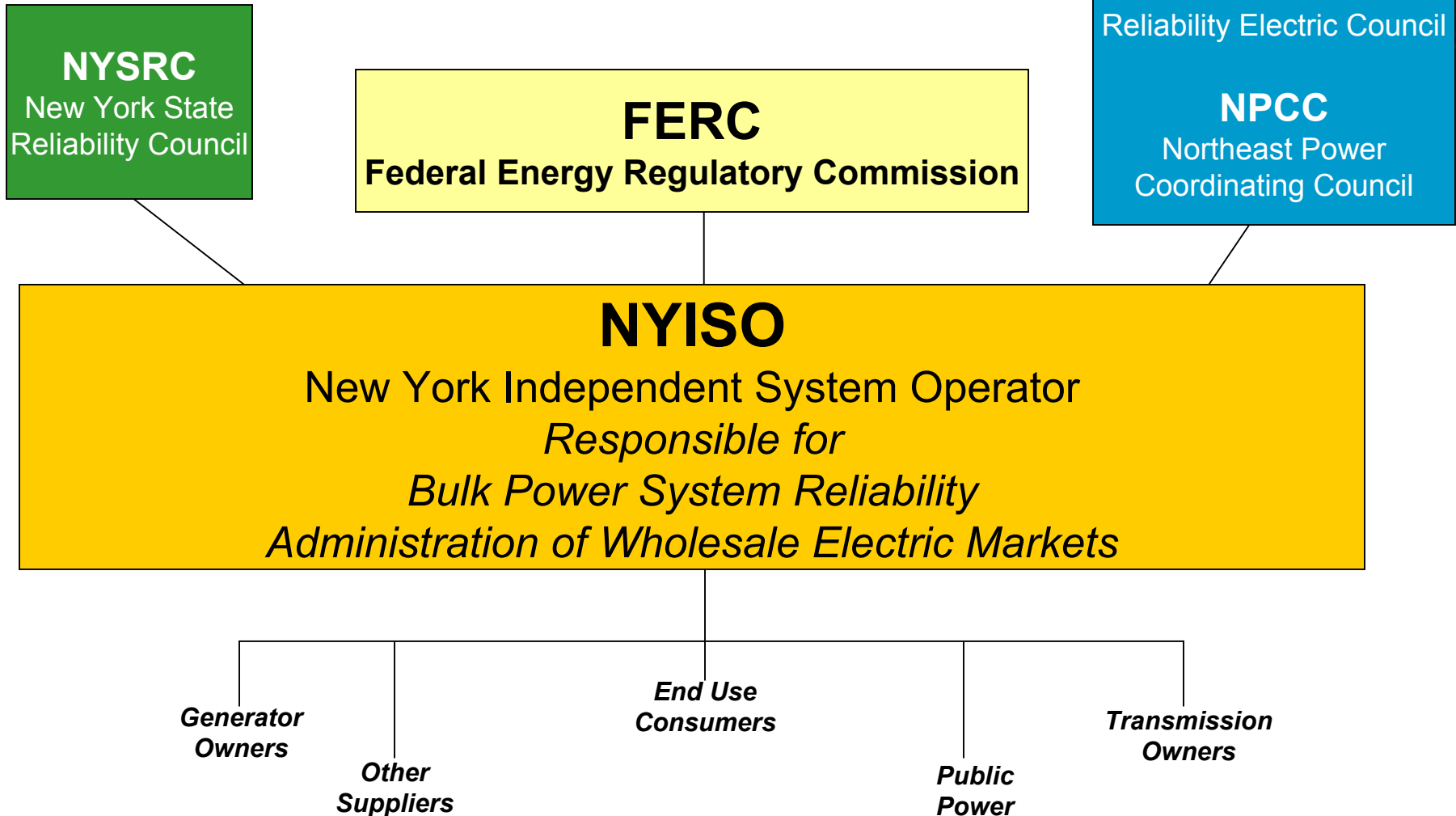
Presentation Outline

- **Overview of the NYISO**
- **From Power Alert I to Power Alert II**
 - ✦ *Changing circumstances*
 - ✦ *Perceptions*
 - ✦ *Realities*
- **Power Alert II Recommendations**
 - ✦ *Capacity additions*
 - ✦ *Article X*
 - ✦ *Long-range recommendations*
 - ✦ *Demand Response recommendations*
 - ✦ *Summary*

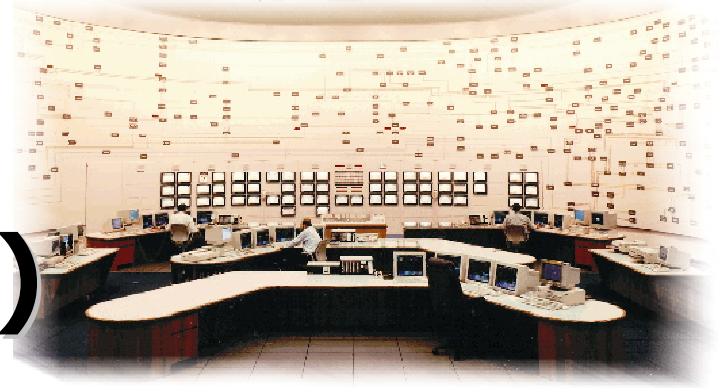
What is the NYISO?

- An independent, not-for-profit organization established in 1999 to ensure safe and reliable operation of New York's bulk power transmission system, and administer NY's wholesale electricity markets.
- Established under a mandate of and regulated by the Federal Energy Regulatory Commission (FERC).
- Assumed some duties formerly conducted by the New York Power Pool.

NYISO Structure



The NYISO's Primary Purpose(s)



- **Maintaining reliability of New York's electric system.**
- **Fostering and maintaining to the maximum extent possible, New York's competitive wholesale markets for electricity.**

One Year Ago... New York at a Crossroads

- **Power Alert** recommended:
- **New York State approve 4,000-5,000 MW of new generation during 2001;**
 - ✦ *2,000-3,000 MW of this capacity should be approved within New York City;*
- **By 2005, 8,600 MW of new generating capacity would provide significant economic and environmental benefits.**



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Changing Circumstances

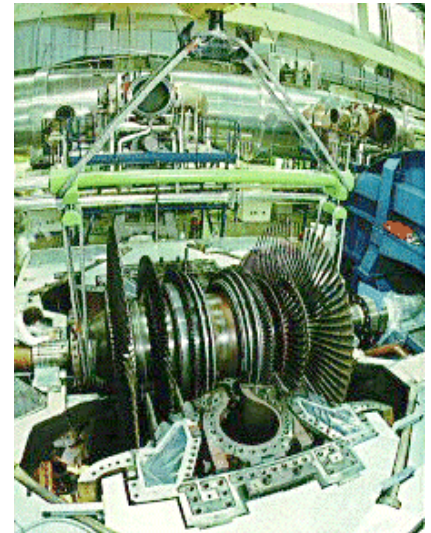
Events of the past year

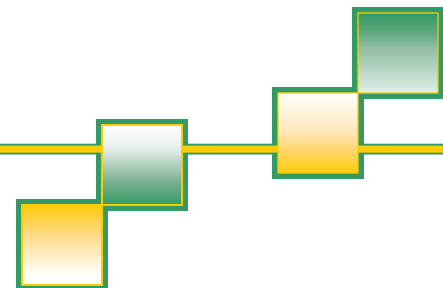
- **U.S. and New York economies “officially” entered a recession.**
- **Events of September 11 had an impact on NYC’s economy and electric demand.**
- **NYPA installed 440 MW of combustion turbines in NYC and Long Island.**

Changing Circumstances

Events of the past year (cont.)

- **NYS Siting Board approved six new power plants and repowerings representing a total net supply of 3,680 MW.**
- **The New York Control Area load was reduced by 435 MW due to the transfer of Rockland Electric Company load to the PJM control area.**





The **perception** resulting from these
changing circumstances:

*"For the medium to longer-term period,
we estimate that as much as 500 MW
of load to be (sic) lost."*

ESAI Energy Consulting
Press Release
September 14, 2002

The **perception** resulting from these changing circumstances (cont.):

"Terrorist Attack Stamps Out New York's Power Crisis"

"It now appears New York City may have enough surplus power to become, at times, a minor exporter of electricity to other parts of the state."



Wall Street Journal
September 14, 2002

The **perception** resulting from these changing circumstances (cont.):



"ELECTRICITY CRISIS EASES IN NEW YORK"

"I think the crisis, as it were, if it hasn't already passed, is well on its way to being behind us," said Fred Zalcman, executive director of the Pace Law School Energy Project

New York Times
February 5, 2002

The **reality** of the situation:



**New York's Energy
Crisis Persists**

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The reality:

The the total impact on peak summer electricity demand of the Sept. 11 attacks on the World Trade Center was approximately 90 MW. Moreover, of this total, a portion is “relocated load” that has simply shifted uptown or to another part of New York City.

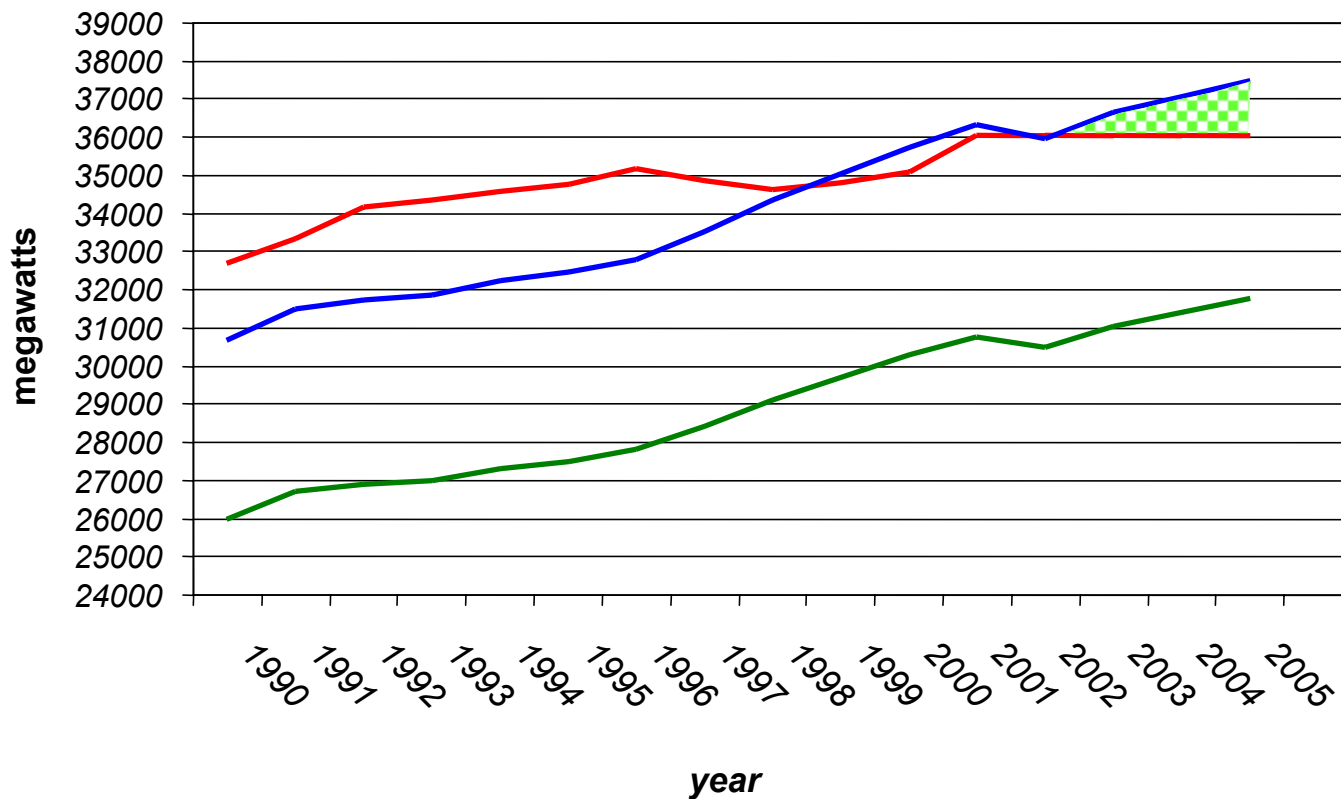


The reality:

Electricity Demand Continues to Outpace New Supply

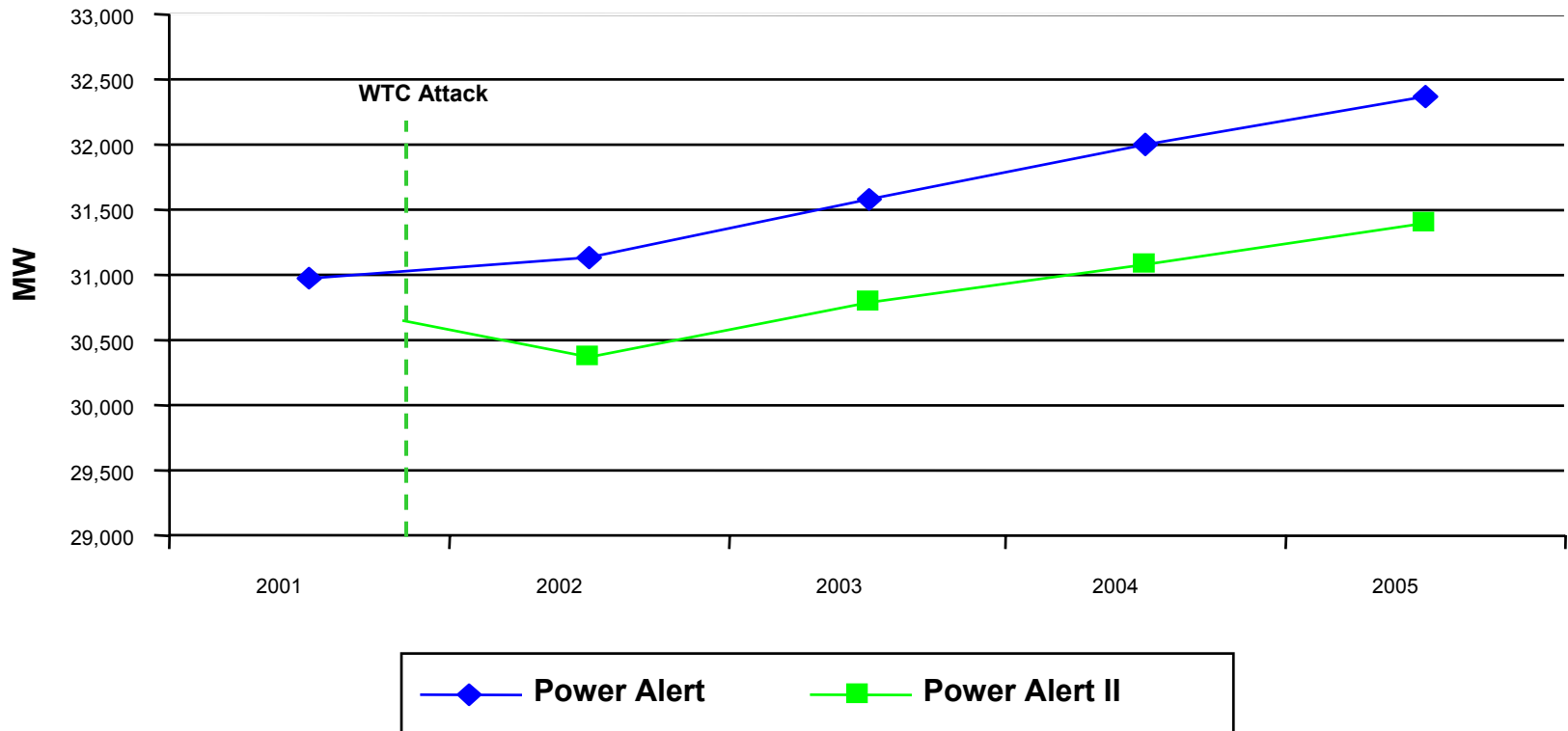
- **Fact:** Between 1995 and 2001 in New York, statewide demand for electricity rose by 3,280 MW, while generating capacity increased by only 1,720 MW.
- **Fact:** Beginning in 1999, New York's overall in-state supply could not meet reliability requirements without power purchases from outside the state.
- **Fact:** Efficient base load units take 2 – 3 years to build after approval.

New York's In-State Capacity Adequacy



New York State Total Projected Demand Growth

(Power Alert vs. Power Alert II)





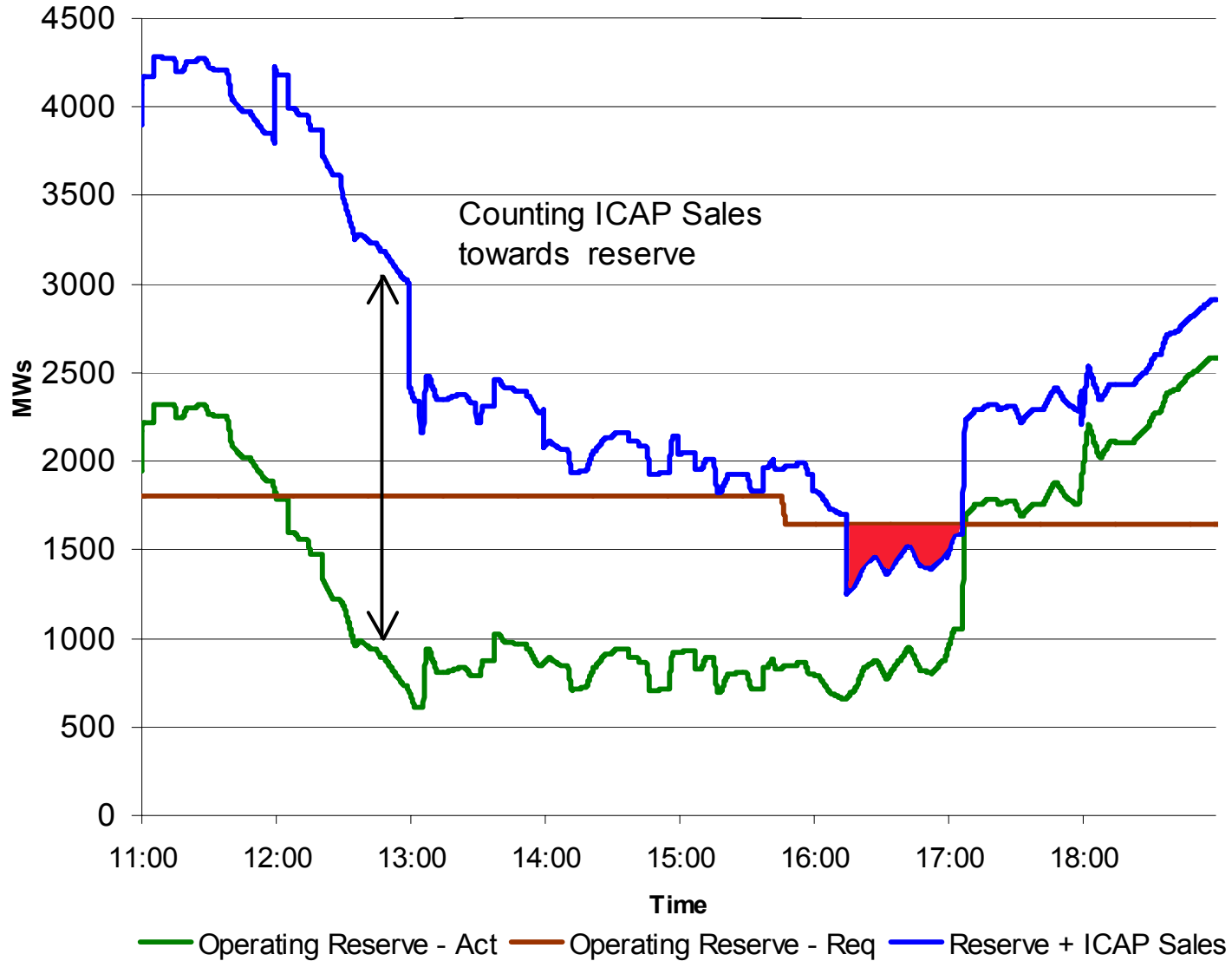
The reality:



On August 9, 2001, New York State set a new all-time integrated peak demand record of 30,983 MW*. This record eclipsed the previous record from 1999 by 672 MW and does not include an estimated 1,500 MW of load reduction brought about by Demand Response Measures (DRM).

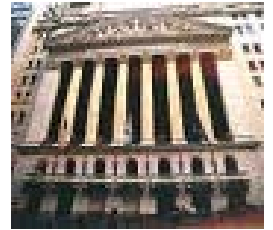
- * - Note, this record occurred well into current economic recession which began in March 2001.

NYISO Reserve Requirement Operating Reserve August 9, 2001



The reality:

- Permit approval from the New York State Siting Board does not necessarily mean a power plant project can secure the necessary financing and get built.
- The recent collapse of Enron, coupled with very low natural gas prices, has made the investment community skittish about power plants.
- During the past few months, three major Northeast power plant projects have been cancelled and at least one has been put on indefinite hold.



The reality:

- One of the Northeast's worst droughts in decades could potentially reduce the water available for hydroelectric generators, as well as for the cooling and pollution-control needs of fossil-fueled generators thereby reducing available capacity. This unexpected factor highlights the need for additional generating capacity to deal with unforeseen events.



Photo by R. Waldele

Power Alert II

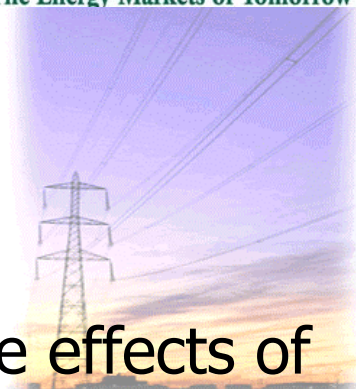
Recommendations

- Supply additions
- Article X
- Long range
- Demand Side Response (DSM)



Power Alert II Recommendations

Supply Additions

- 
- Even with the economic downturn and the effects of Sept. 11, New York State still needs an additional 7,100 MW of generating capacity built by 2005.
 - 2,000-3,000 MW of this new capacity must be located in New York City.
 - Given the time it takes to construct new plants once they have been permitted, approvals for an additional 3,000 MW of capacity are needed by Spring 2002.
 - Long Island needs 750-1,000 MW approved as soon as possible to alleviate severe reliability risks and high prices.

Power Alert II Recommendations

Supply Additions - Benefits

- **By adding enough new supply, New York will enjoy the following benefits:**
 - ✦ *Enhanced reliability*
 - ✦ *Increased competition creating strong downward pressure on electricity prices;*
 - ✦ *Significant environmental improvements including reductions in sulfur and nitrogen emissions and decreased water use.*

Power Alert II Recommendations

Article X

- The New York State Legislature should renew the Article X electric power plant siting law scheduled to expire December 31, 2002—to maintain the Siting Board's momentum.
- Any changes made to Article X should focus on shortening the time frame for review and approval.

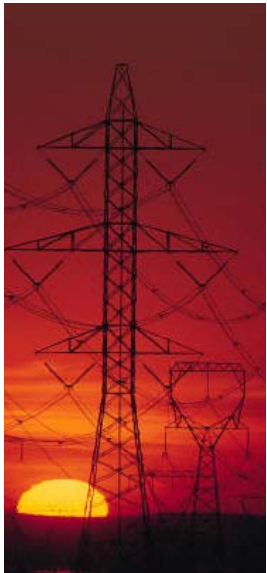




Power Alert II Recommendations

Long Range Recommendations

- **The NYISO re-confirms the long-range recommendations it made in Power Alert. These include:**
 - ✦ *Encouraging transmission infrastructure upgrades and expansions through market design enhancements.*
 - ✦ *Making sure to consider fuel diversity and the economics of adequacy of energy supply as part of the State's energy policy.*
 - ✦ *Examine the expansion of the natural gas transmission infrastructure to facilitate the development of additional gas-fired combined cycle plants.*





Power Alert II Recommendations

Demand Side Response (DSM)

- During the peak week of August 6-10, DSM played a major role in maintaining the state's reliability by reducing demand at the peak by an estimated 1,500 MW Accordingly, the NYISO recommends that:
- DSM programs continue to be developed at the wholesale level;
- Barriers to real-time pricing be eliminated at the retail level;
- The development of "smart metering" should be encouraged to empower consumers;
- Real-time residential and small commercial rates be developed.

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In Summary

- Despite suggestions to the contrary, New York State still needs significant amounts of new generating capacity.
- Additional supply will provide greater reliability, drive down prices and have a positive impact on the environment.
- The State must remain focused on sending strong affirmation to potential developers that new projects are needed and welcome.
- Demand Response Measures, transmission upgrades, development of distributed generation and a focus on fuel diversity will all contribute to a more secure energy future.