

NYISO

Market & Performance Metrics

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Washington, D.C.**

A Look at the NYISO

- Serving 19 million NY residents
- 10,892 circuit-miles of high-voltage transmission lines
- ~ 400 market participants
- Over \$75 billion in market transactions (1999-2009)
- 38,190 MW of installed generation
- Record peak load -- 33,939 MW

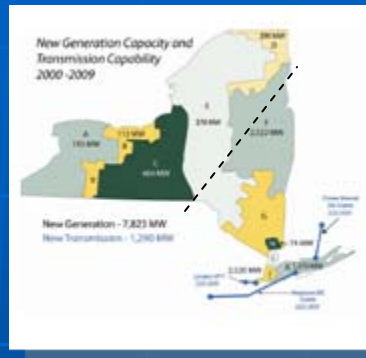


Reliability

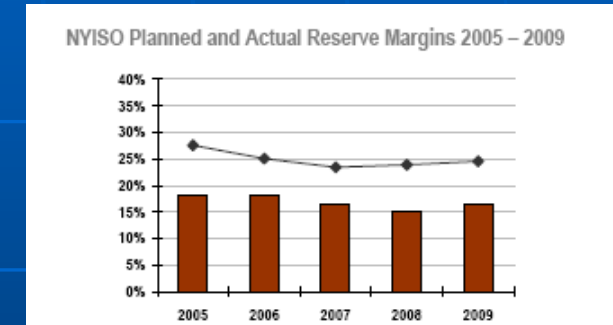
Investments Driven by Competition

- Investment in Right Places

- 80% of new generation
- 100% new transmission

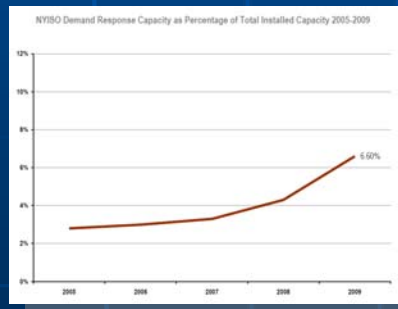
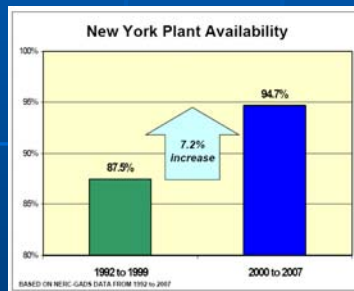


- Reliability Needs Met through 2020



- Improved availability

- 87.5 % (1992-1999)
- 94.27% (2001-2007)



- Demand Response

- > 4,000 enrolled
- > 2,380 MW capability

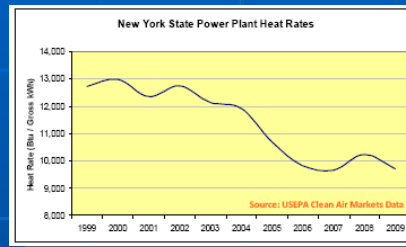
Energy Prices

Driven by Competition

Fundamental changes

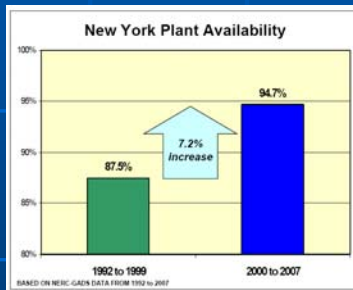
- **Increased efficiency**

- Heat rate improved 25% from 1999 to 2009



- **Improved availability**

- Adds 2,400 MW without new capital costs



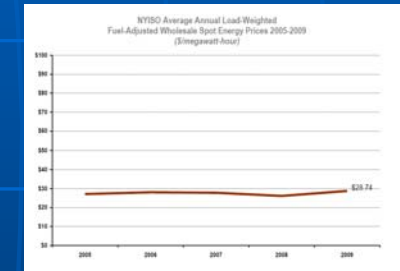
- **Investment in Right Places**

- \$500 M saving associated with new generation & DR near demand

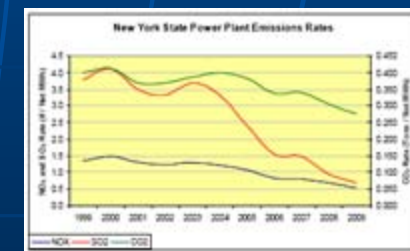


Positive outcomes

- \$2.2 Billion in annual energy and capacity savings
- Levelized annual average fuel-adjusted wholesale energy prices



- Double-digit power plant emission reductions

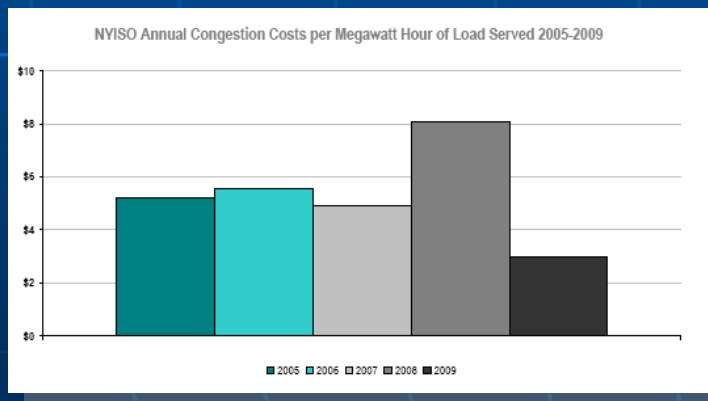


Congestion Reduction

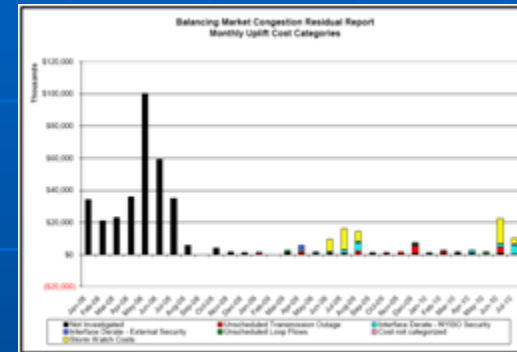
Lake Erie Loop Flow



Congestion



“Uplift” Reduction



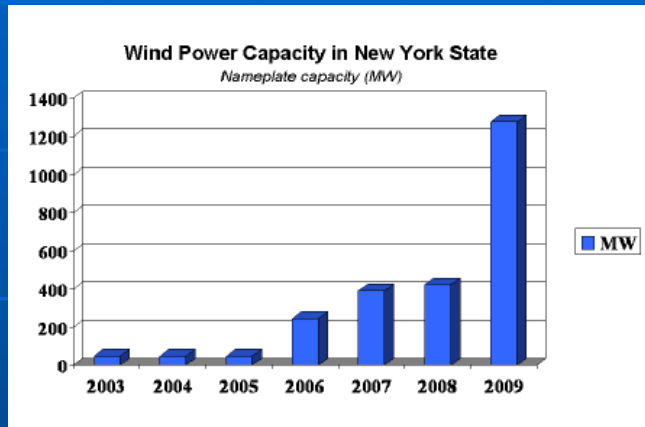
\$44 Million annual savings

Broader Regional Markets Initiative

- Enhanced Interregional Transaction Coordination
- Interface Pricing
- Market-to-Market Coordination
- Buy-Through of Congestion

\$362 million in estimated annual savings throughout region

Renewable Energy & New Technologies



■ Growing Wind Capacity

- Nearly 1,300 MW installed
- > 6,000 MW in queue
- Increasing need for better load forecasting, regulation service, transmission and balancing technologies

■ NYISO market design, grid operations & technology

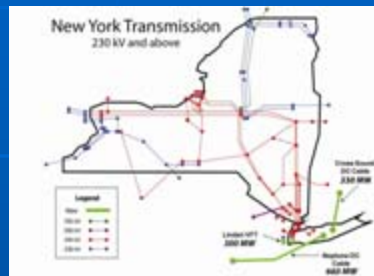
- Centralized wind forecasting system
- Integrated wind into economic dispatch system
- Created regulation-only energy storage product

■ Ramping & Storage

- Hydro Quebec 15-min. scheduling
- 20 MW AES Battery project
- 20 MW Beacon Power Flywheel project

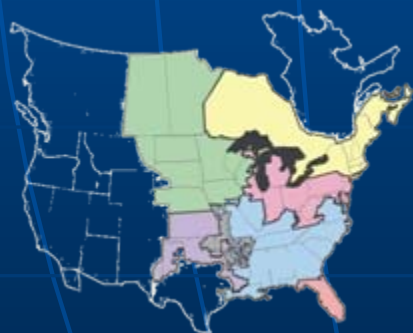
Transmission

**NEW
CAPACITY
1290 MW**



STARS

EIPC



Reliability

- Low load growth
- Reliability needs met through 2020
- New capacity serving NYC/LI region
- Some retirements anticipated

Economics/Renewables

- Order 890 economic planning/CARIS
- FERC-approved beneficiary pays methodology
- STARS process
- EIPC

Summary

- FERC metrics initiative is assisting us to:
 - Sustain and enhance transparency
 - Identify strengths and gaps in order to address challenges
 - Maintain and bolster collaborative efforts with stakeholders, regulators and policy makers