

# 2010 Summer Outlook

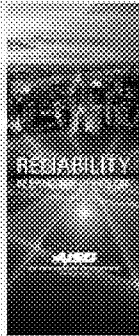
New York's Independent  
System Operator

May 2010

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# The Roles of the NYISO



## Reliable operation of the bulk electricity grid

*Managing the flow of power nearly 11,000 circuit-miles of high voltage transmission lines from more than 350 generating units*



## Administration of open and competitive wholesale electricity markets

*Bringing together buyers and sellers of energy and related products and services*



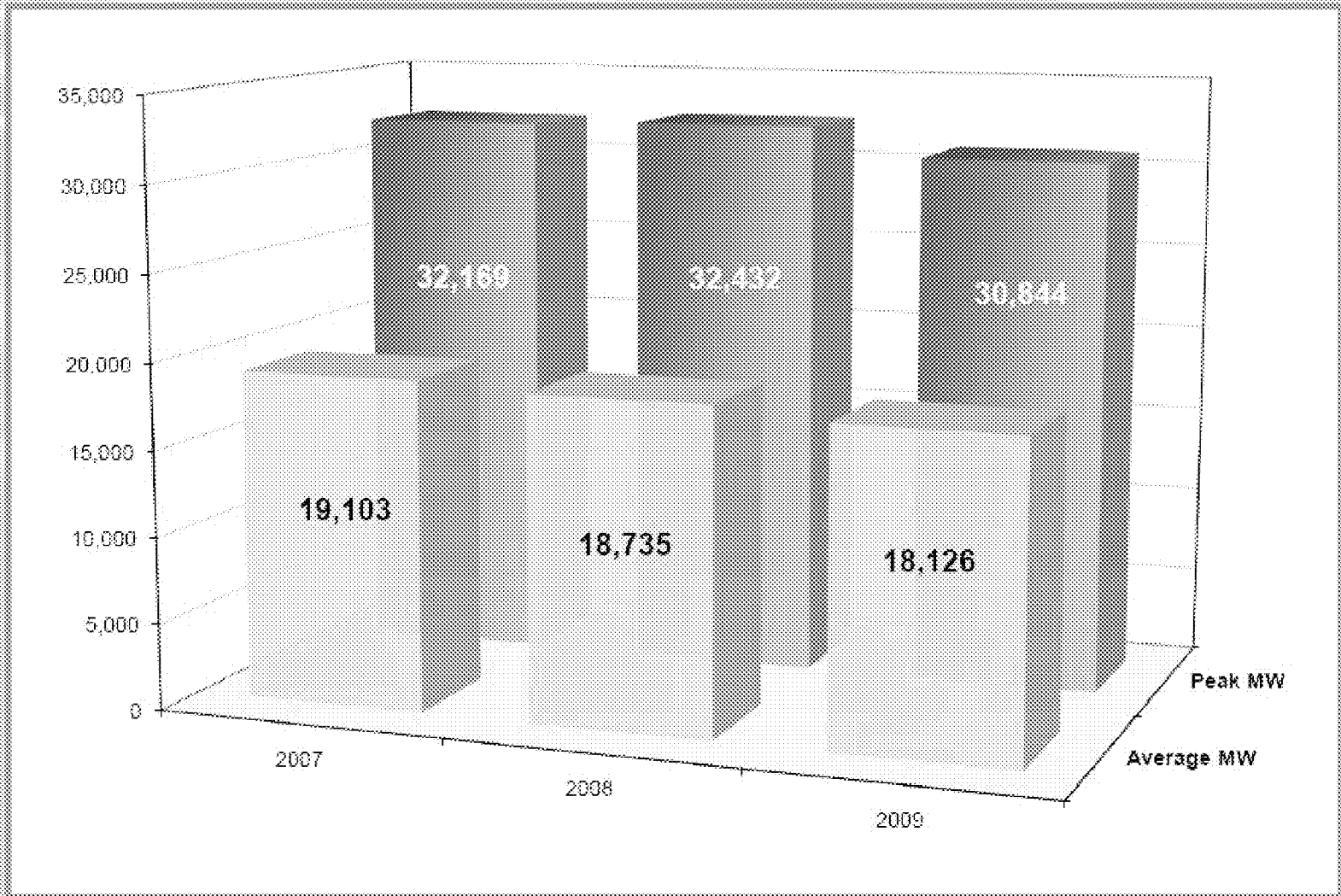
## Planning for New York's energy future

*Assessing needs over a 10-year horizon and evaluating the feasibility of projects proposed to meet those needs*

# Understanding Peaks

- **Electricity demand changes constantly as consumers use different amounts of power during the day and as their power needs change throughout the seasons of the year**
- **Power demand can spike sharply during extreme summer weather conditions, as air conditioning and cooling systems increase electricity consumption**
- **New York State's summer peak demand can increase 40 percent above the average level of electricity use**

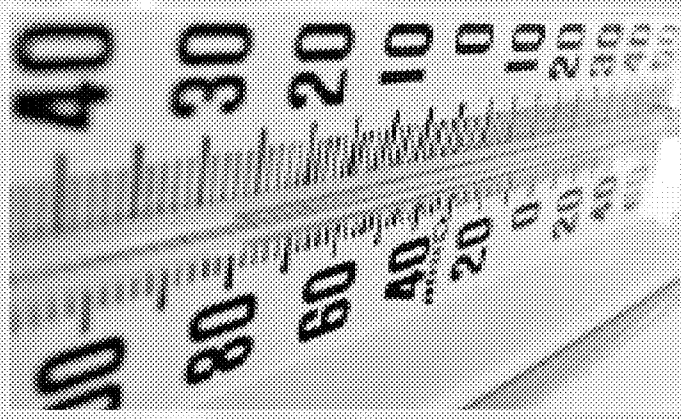
# Peak v. Average Demand



# Meeting Peak Demand

- **The power system must have adequate capacity to meet peak demand – even though demand spikes to peak levels only a few days each year**
- **The additional demand during peaks equates to adding 20 to 30 power plants (*of 500 MW capacity each*) to supply the electricity needs of New Yorkers on the hottest days of the year**

# Summer Peaks



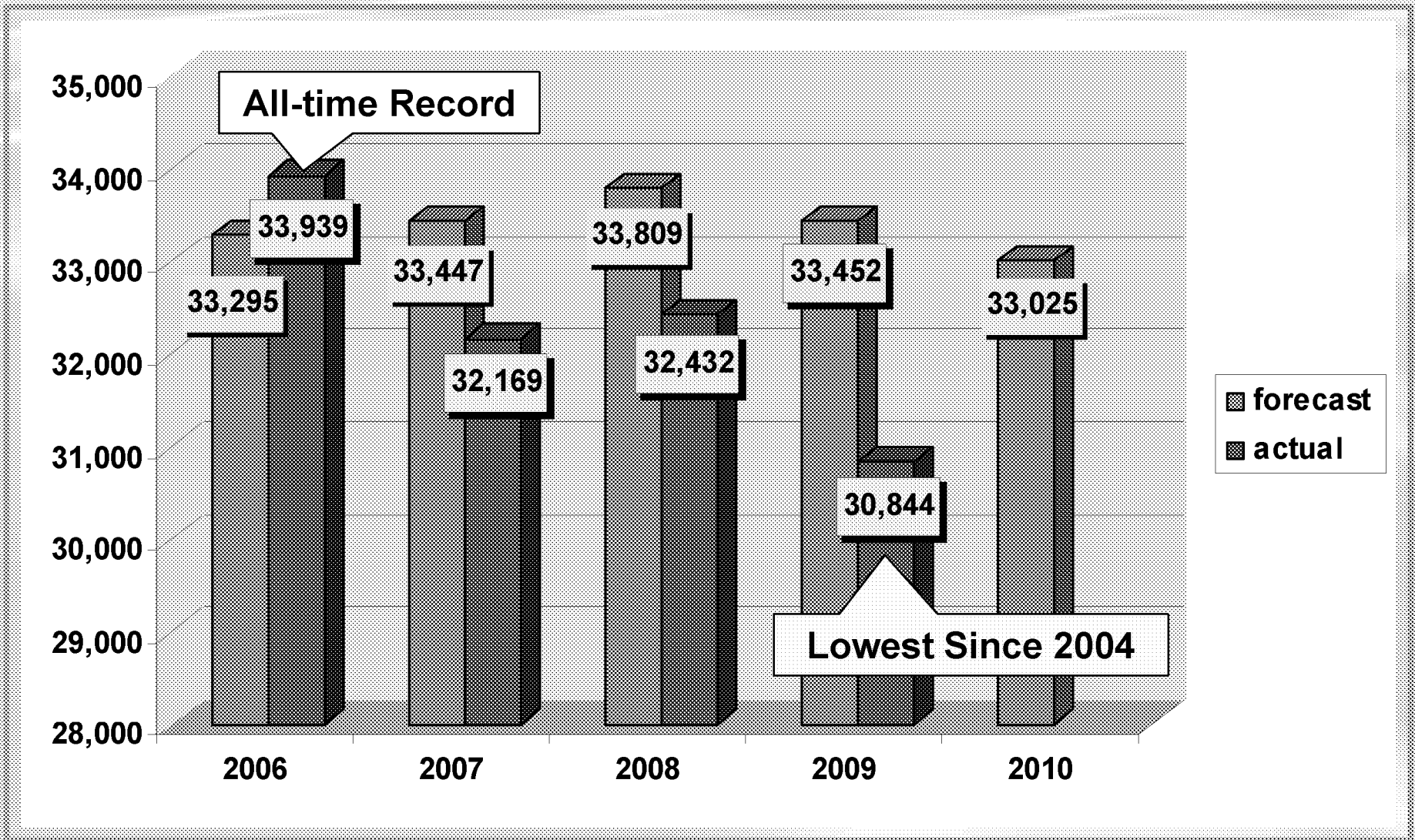
**Summer 2010 Forecast 33,025 MW**

**Summer 2009 Forecast 33,452 MW**

**Summer 2009 Actual 30,844 MW**

**Record Peak (8/2/06) 33,939 MW**

# Forecast & Actual Peaks





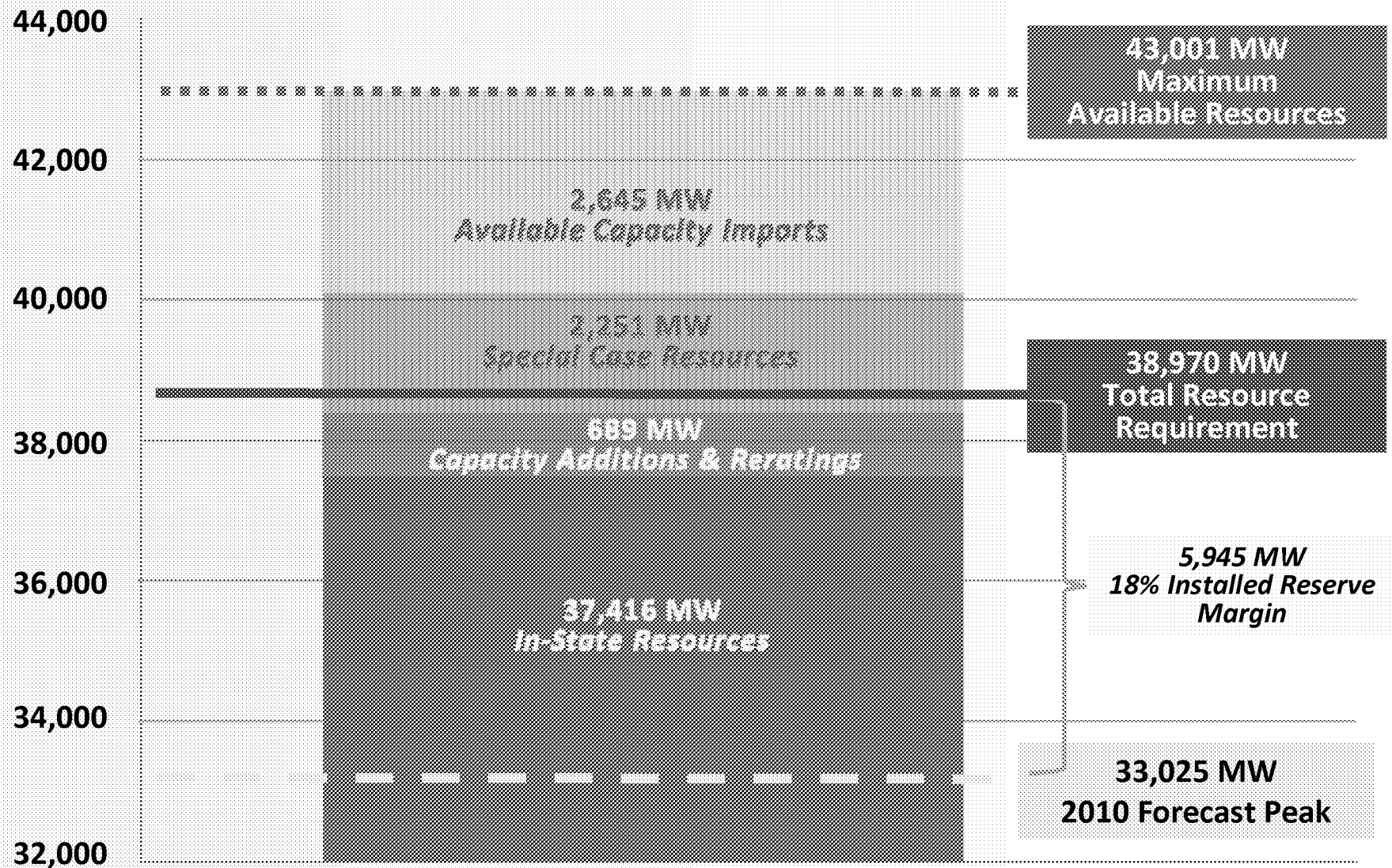
# **Power Resources**

**New York has more than 43,000 MW  
of power resources available**

**Resources required -- 38,970 MW**

**Forecast peak -- 33,025 MW**

# Resource Availability for New York State Summer 2010



SOURCE: 2010 Load and Capacity Data Report - New York Independent System Operator

# **Building Reliability**

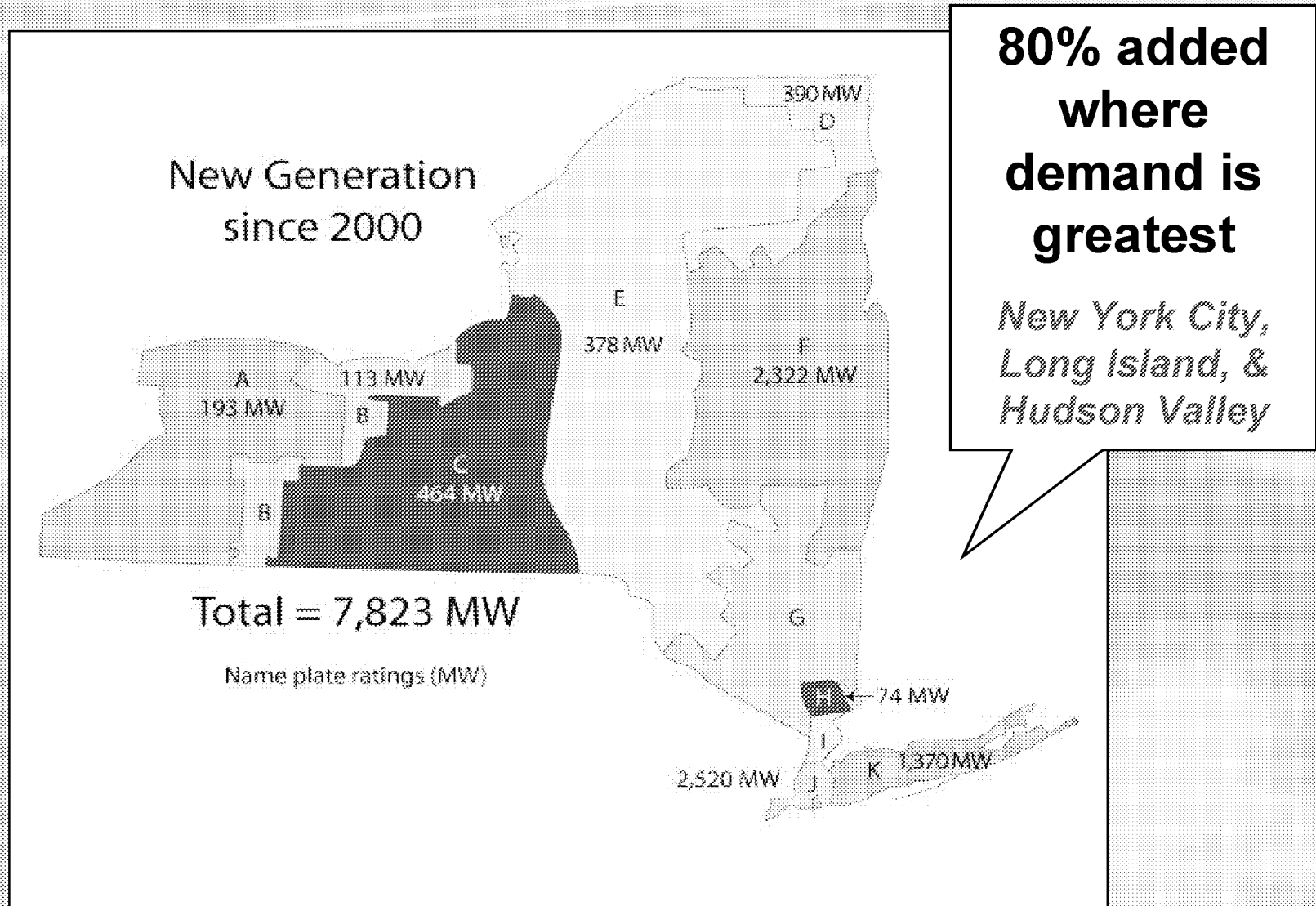
**Since 2000, New York has added**

Over 7,800 MW of new generation

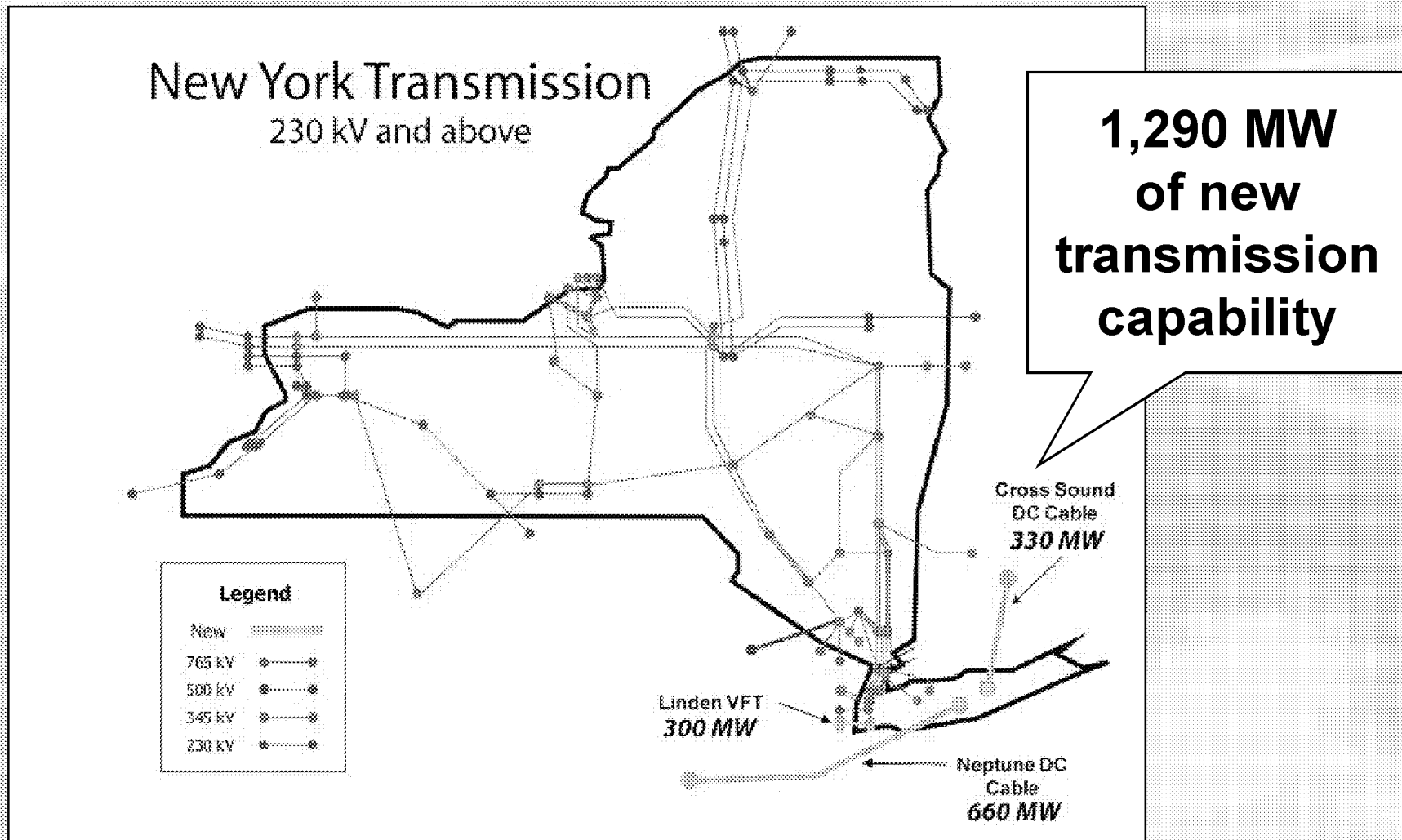
Nearly 1,300 MW of new transmission

Nearly 2,400 MW of demand response

# Generation



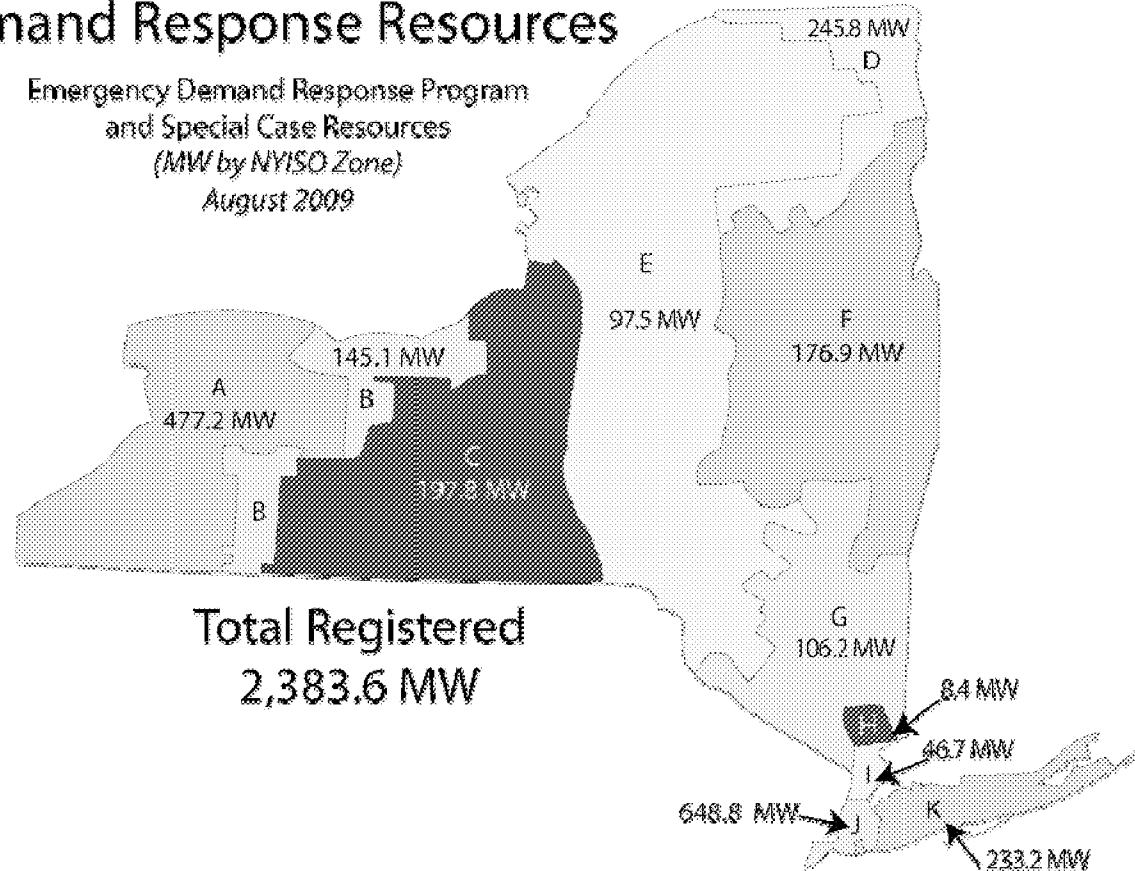
# Transmission



# Demand Response

## Demand Response Resources

Emergency Demand Response Program  
and Special Case Resources  
(MW by NYISO Zone)  
August 2009




Demand response programs enlist consumers to reduce their power use when reserves are forecast to be tight or peak demand occurs



**Sustaining and  
enhancing reliability**

**Bolstering open and  
competitive markets**

**Planning a smarter,  
greener, and more  
efficient grid**

An aerial, black and white photograph of a city, likely New York City, showing a dense grid of buildings and streets. A dark, semi-transparent banner is overlaid horizontally across the middle of the image. The banner contains the text 'www.nyiso.com' in a white, bold, sans-serif font. The background image is a high-angle, wide-area shot, capturing a significant portion of the city's urban landscape.

[www.nyiso.com](http://www.nyiso.com)