

# 2008 NYISO COMPREHENSIVE RELIABILITY PLAN

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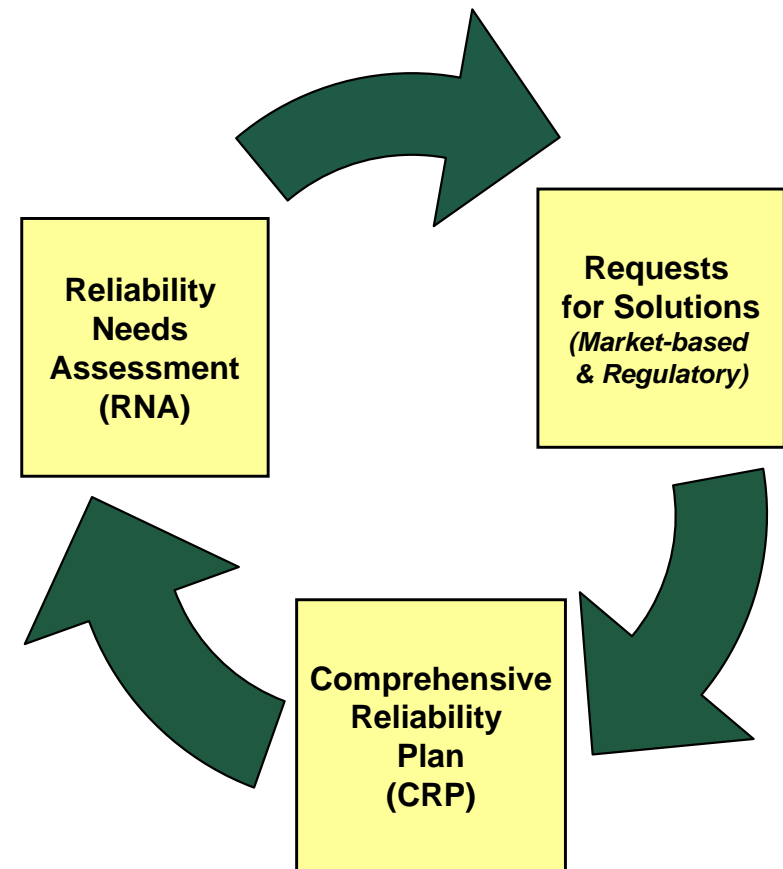
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**NPCC Governmental/Regulatory Affairs Advisory Group**  
**Saratoga Springs, NY**  
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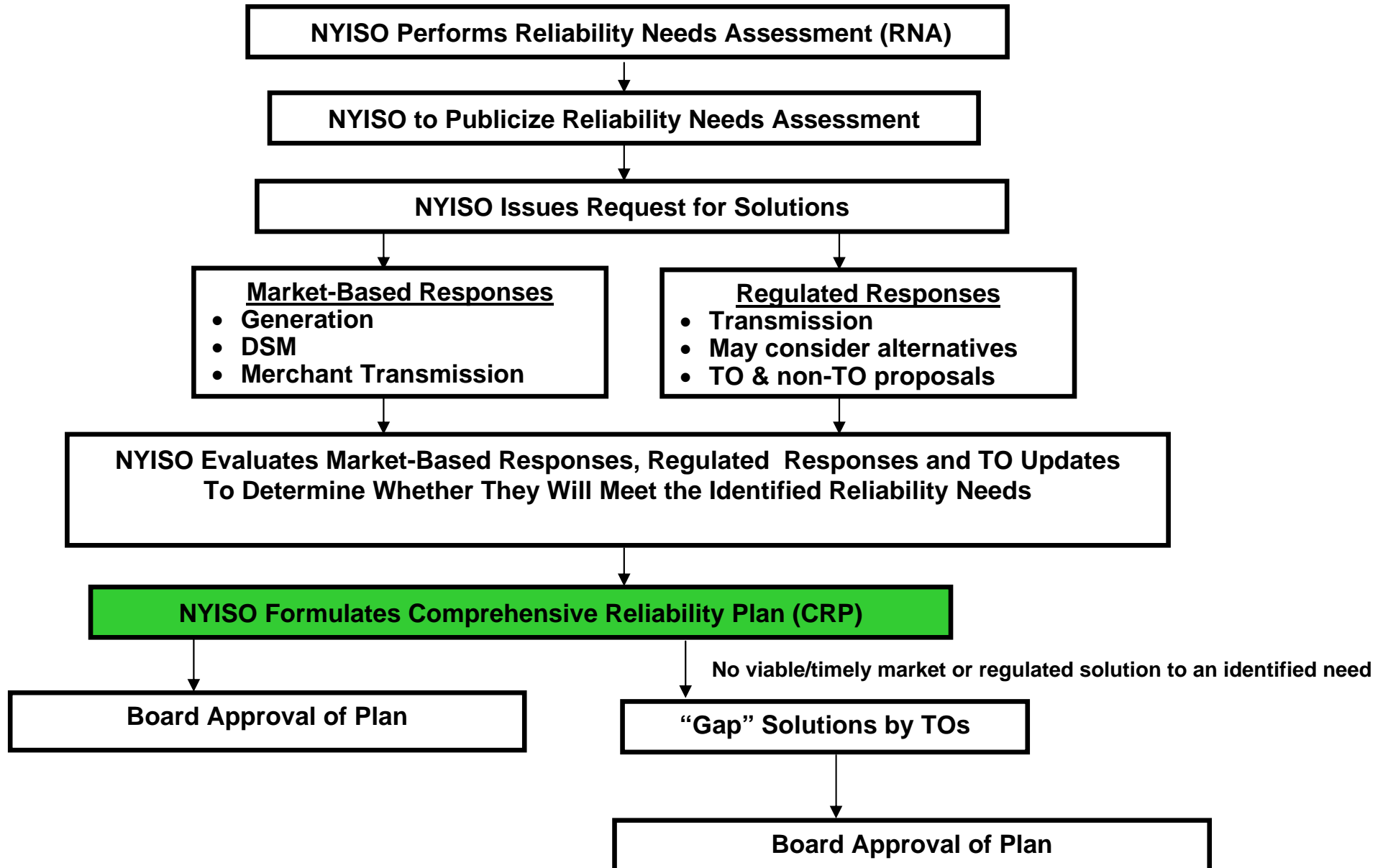
# NYISO's Comprehensive Reliability Planning Process (CRPP)

# A Multi-staged Process

- ◆ **Reliability Needs Assessment**
  - *Forecast local and statewide demand*
  - *Includes facilities and resources likely to be added*
  - *Identifies reliability needs, utilizing applicable criteria*
- ◆ **Requests for Solutions**
  - *“All-source” (Generation / Transmission / Demand-Side)*
  - *Market-based*
  - *Regulated Backstop*
- ◆ **Comprehensive Reliability Plan**
  - *Analyzes proposed solutions to determine whether they meet identified needs*
  - *Preference for “market based” solutions*
  - *Identify “regulated backstop” solutions (in the event market-based solutions not forthcoming)*



# CRPP Flow Chart

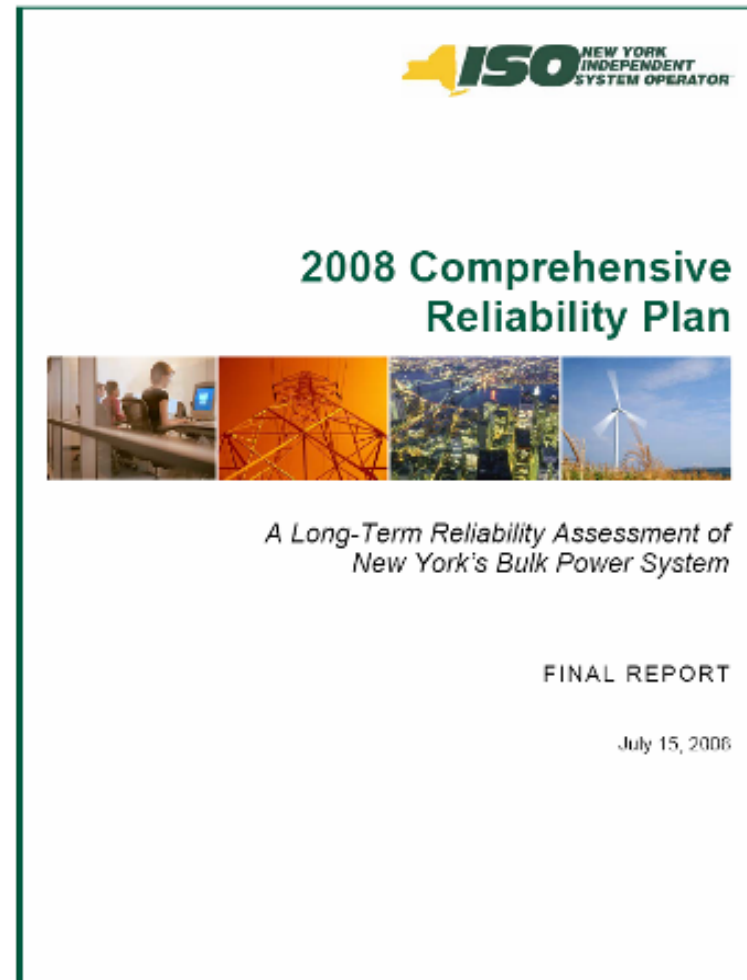


# Process Results to Date

- ◆ **The 2008 CRP is the culmination of the NYISO's third planning cycle.** In each cycle, the market has responded with project proposals to meet identified reliability needs.
- ◆ **More than 3,000 MW of market-based projects,** submitted during the NYISO's first two planning process cycles, are **moving forward on schedule.**
- ◆ **Over 7,000 MW of new power plants and merchant transmission projects** have come into operation in New York since 2000.

# 2008 Comprehensive Reliability Plan

- ◆ **The Comprehensive Reliability Plan (CRP) provides a blueprint for meeting the reliability needs of the state's bulk electricity grid over a 10-year planning horizon.**
- ◆ **The NYISO Board of Directors approved the 2008 CRP in July.**



# 2008 CRP Summary

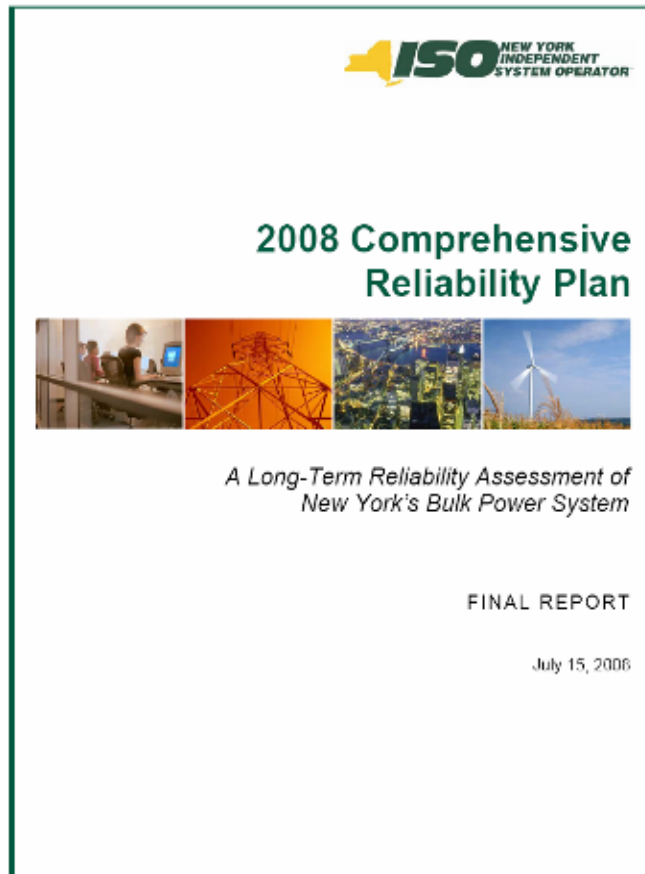
- ◆ The **2008 RNA determined that additional resources would be needed** over the 10-year study period in order for the New York Control Area (NYCA) to comply with all applicable reliability criteria.
- ◆ The **NYISO solicited and received proposals** for market-based and regulated solutions to the reliability needs identified in the RNA.
- ◆ **The 2008 CRP determined that proposed market-based solutions**, together with implementation of Transmission Owner **planned upgrades** to the bulk power system, **meet or exceed reliability requirements through 2017**.
- ◆ **No action needs to be taken** at this time to implement a **regulated backstop solution** or a **alternative regulated solution** to address the reliability needs.

# Plan Risk Factors

- ◆ **The CRP report identifies a number of factors that could affect the plan, including:**
  - *the absence of a **streamlined siting process** for new generating facilities,*
  - ***fuel diversity** and **fuel supply infrastructure** concerns*
  - ***dependence on capacity from neighboring regions** and the related impact of the forward capacity markets in those regions,*
  - *the value of **long-term price certainty** for market-based projects,*
  - *the potential for additional **plant retirements** due to economic or environmental factors,*
  - *the results of regulations initiated to comply with **ozone standards**,*
  - *the impact of the **Regional Greenhouse Gas Initiative (RGGI)** and its planned auctions of emission allowances, and*
  - *the effects on electricity demand from implementation of New York State's **Energy Efficiency Portfolio Standard (EEPS)** .*

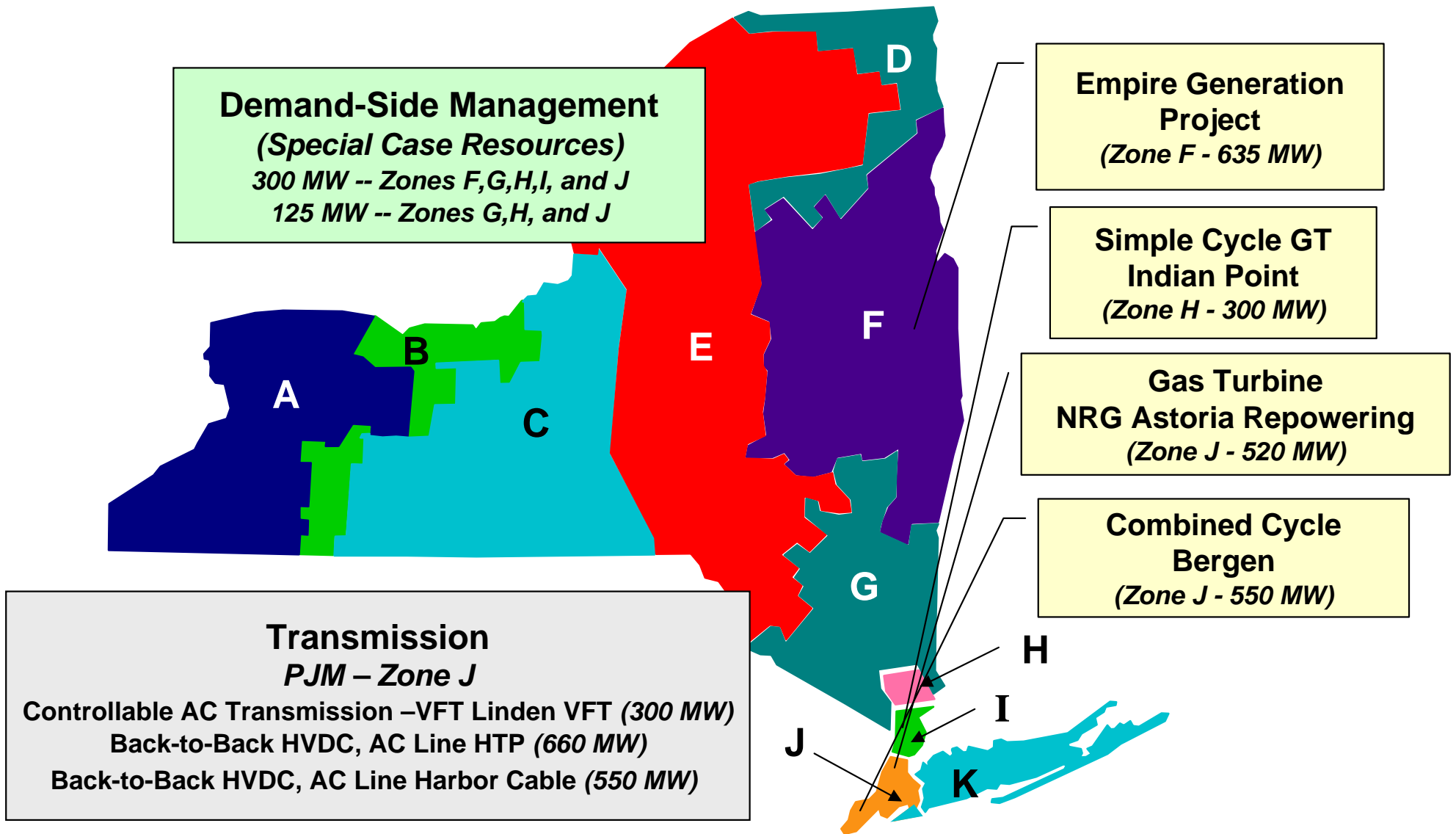


# 2008 CRP: Appendix

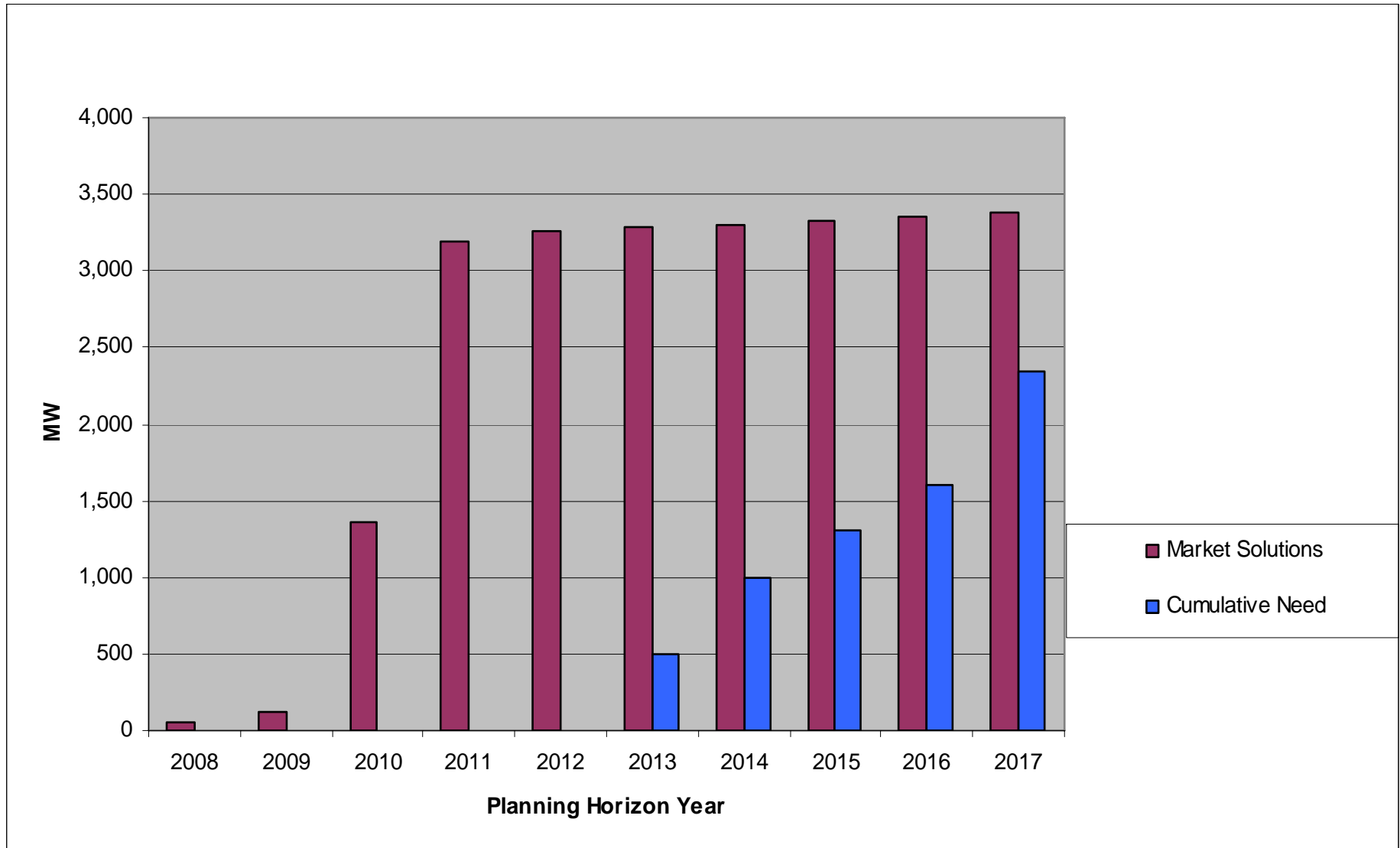


- ◆ **Market-based Solutions**
- ◆ **Regulated Backstop Solutions**
- ◆ **Alternative Regulated Solutions**
- ◆ **Plan Risk Factors**

# Market-based Solutions



# Market Based Solutions

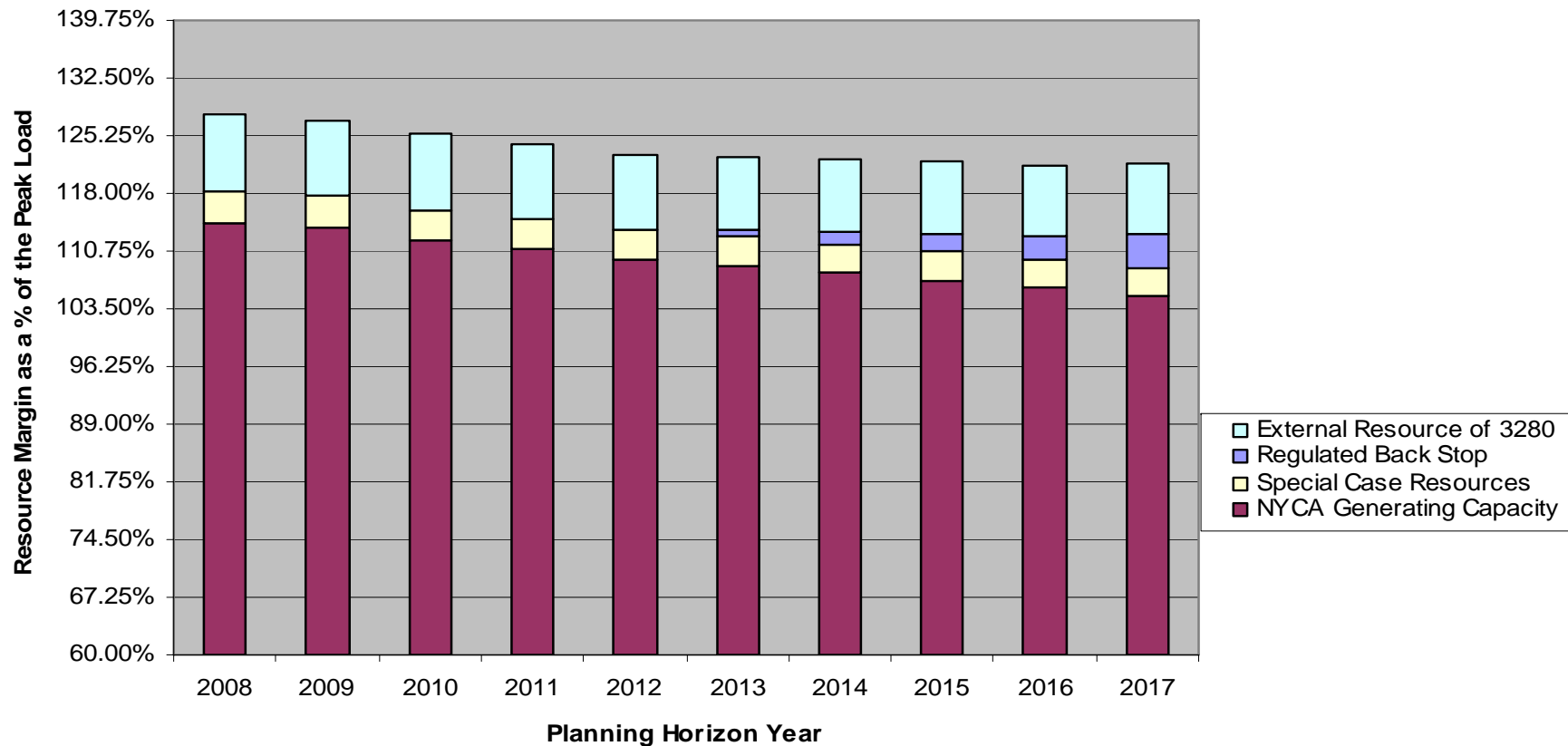


# Regulated Backstop Solutions

- ◆ **First Five Years – 2008 to 2012**
  - *None Required- Updated TO Plans Satisfy Needs*
    - UDRs Treated as Firm Capacity
- ◆ **Second Five Years – 2013 to 2017**
  - *500 MW of DSM in Zone J*
  - *500 MW of new generation and/or DSM in Zone J*
  - *500 MW of new generation and/or DSM in Zone G*
  - *300 MW of new generation and/or DSM in Zone B*
  - *300 MW of new generation and/or DSM in Zone K*
  - *A new 345 kV transmission line between Zones F and G*
    - Permits the location of generation and DSM in upstate zones, rather than Zone G.
    - Two alternatives proposed which would use existing R-O-W
  - *300 MW of new combined cycle generation in Zone B submitted Individually*
- ◆ **Sufficient to satisfy identified Reliability Needs based upon their proposed locations and scheduled implementation**

# Regulated Backstop Solutions

**CRP 2008 NYCA Resources As Percent of NYCA Peak Load With TO Updated Plans, Responsible TO Backstop Solutions of 2,350 MW, and Poletti in Service in 2009 Current Installed Capacity Requirement is 115%**



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# Alternative Regulated Solutions

- ◆ **New York Regional Interconnect**
  - *1200 MW 500kv DC line from Edic to Rock Tavern*
  
- ◆ **Mirant**
  - *New 540 MW CC plant at existing Lovett Station*

# 2008 CRP Summary

- ◆ **The Reliability Needs Assessment (RNA) determined that additional resources would be needed over the 10-year study period in order for the New York Control Area (NYCA) to comply with all applicable reliability criteria.**
- ◆ **The NYISO has determined that under the conditions studied, including TO updates, sufficient market-based resource additions to the NYCA are planned or under development such that the NYCA can meet reliability criteria throughout the 10-year Study Period.**
- ◆ **The NYISO has determined that no action needs to be taken at this time to implement a regulated backstop solution or alternative regulated solution to address the reliability needs.**

# 2008 CRP Required Actions

- ◆ **The plan consists of the following actions, which will result in a net addition of 2,350 MW of resources by 2017, as well as improvement in transmission system transfer limits from the baseline by 2012:**
  - *Implementing certain Transmission Owner plans, which include transmission upgrades, such as the addition of capacitor banks at the Millwood Substation and the installation of the Con Edison M29 project.*
  - *Developing upwards of 2,350 MW of market based resources from the 3,380 MW of merchant generation and transmission projects that have been proposed for New York.*



## 2008 CRP Actions (Cont'd)

- ◆ **At least 1,000 MW of these resources should be located in New York City or have unforced capacity delivery rights (UDRs) into New York City.**
- ◆ **At least 1,000 MW of resources should be located in the Lower Hudson Valley**
- ◆ **300 MW of additional resources could be located in New York State as a whole, including Upstate New York**
- ◆ **The geographical distribution of resources can vary in conjunction with transmission additions**
- ◆ **Maintain the voltage performance of the system at the bulk system level**

# Plan Risk Factors

- ◆ **At least 2,350 MW of resources must proceed on schedule to meet the Reliability Needs**
  - *NYISO will continue to track progress – quarterly monitoring*
- ◆ **Implementing Transmission Owner plans**
  - *Con Edison M29 transmission project, capacitor banks at Millwood substation, firm capacity in conjunction with UDRs, planned non-bulk power system projects*
- ◆ **Fuel diversity**
  - *All planned generator additions are natural gas*

# Plan Risk Factors (Cont'd)

- ◆ **Dependence on capacity from neighboring regions**
  - *Northeast Coordinated System Plan to address resource adequacy on a regional basis*
- ◆ **Market solutions stated need for long-term price certainty**
  - *e.g., long term contracts, forward capacity markets, new capacity zone in lower Hudson Valley*
  - *Forward Capacity Market development discussions*
- ◆ **Risk of additional plant retirements due to pending environmental rules**
  - *NYISO to continue studies of potential impacts in 2009 RNA*

# Approved by the NYISO Board

- ◆ **The 2008 Comprehensive Reliability Plan was approved by the NYISO Board of Directors on July 15, 2008**
- ◆ **Posted on the NYISO website, at:**  
[https://www.nyiso.com/public/services/planning/reliability\\_assessments.jsp](https://www.nyiso.com/public/services/planning/reliability_assessments.jsp)



The New York Independent System Operator (NYISO) is a not-for-profit corporation that began operations in 1999. The NYISO operates New York's bulk electricity grid, administers the state's wholesale electricity markets, and performs comprehensive reliability planning for the state's bulk electricity system.

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