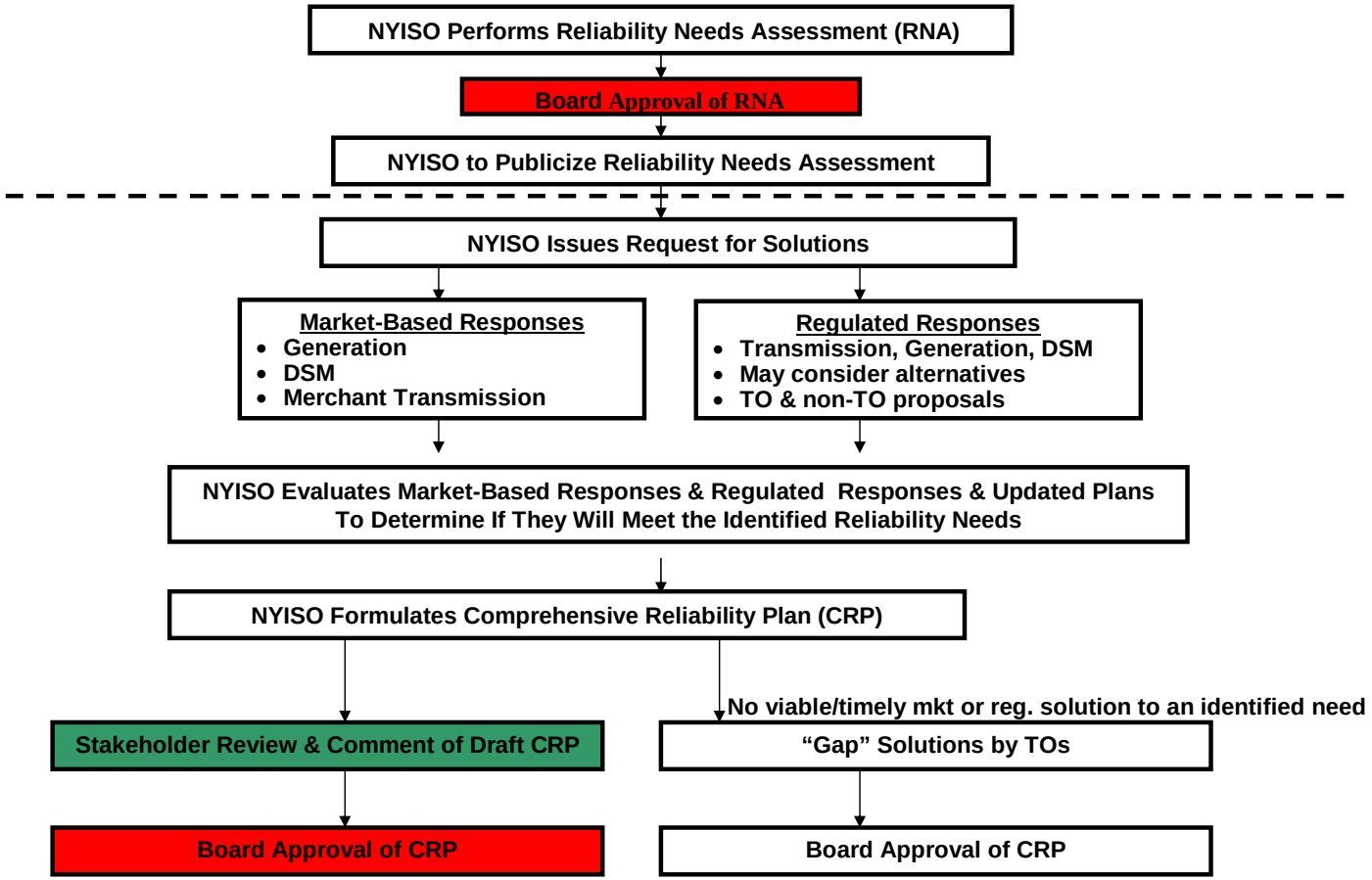
Review & Approval of Draft Comprehensive Reliability Plan
Management Committee
August 8, 2006

John Adams/Carl Patka

NYISO Reliability Planning Process



Draft CRP Results

1. 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.**

2. **The NYISO has determined that under the conditions studied and TO updates, sufficient resource additions to the NYCA are planned or under development such that the NYCA can meet reliability criteria for the first five years, and through four of the second five years of the Study Period.**

3. **In order to meet criteria for the last year of the study period, additional Market Proposals or Regulated Solutions will be needed.**

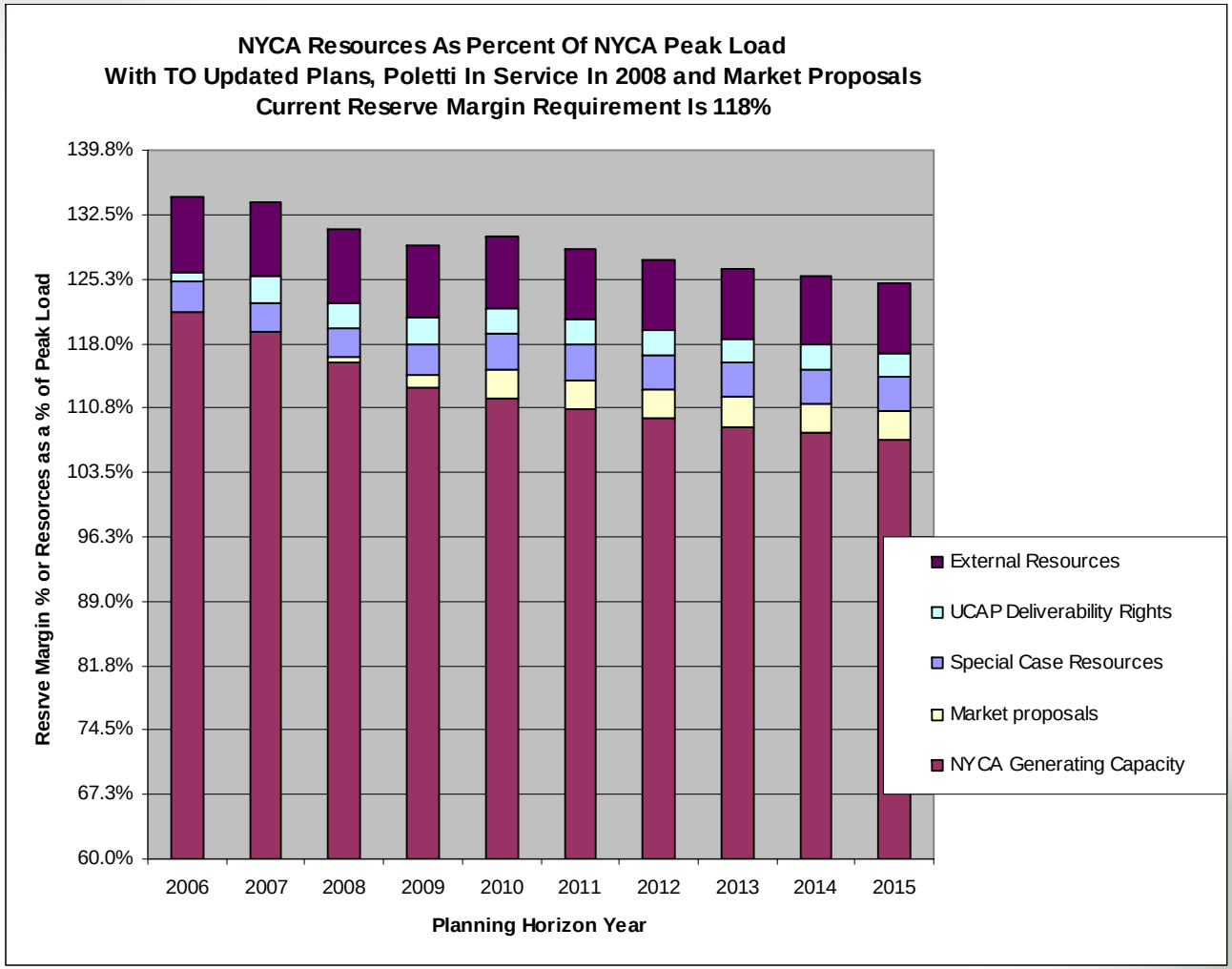
4. **Given that this need is sufficiently far in the future, and the next round of CRPP has already begun, the NYISO has determined that no action needs to be taken at this time to implement a regulated backstop solution or alternative regulated solution to address this reliability need.**

Draft CRP Summary

The plan consists of the following actions, which result in total resource additions of 3,105 MW by 2015, as well as improvement in transmission system transfer capability by 2010:

1. **The deferred retirement of the New York Power Authority's Charles A. Poletti generating unit in New York City from 2008 until 2009.**
2. **The implementation of the Responsible Transmission Owner plans which include resource additions totaling 1,905 MW through year 2010:**
    1. **Transmission additions and upgrades such as M29**
    2. **Reactive resource additions**
    3. **Capacity additions totaling 466 Megawatts (MW)**
    4. **Capacity equivalent Unforced Deliverability Rights (UDRs) totaling 990 MW supported by generation in neighboring control areas**
    5. **Demand-side management (DSM) programs totaling 449 MW in New York City and Long Island**
3. **The development of 1,200 MW of merchant generation projects in New York City and Long Island.**
    1. **950 MW proposed for New York City the balance for Long island**
    2. **It is important that this generation be in service as scheduled no later than the summer of 2011**

Draft CRP Reserve Margins



Finding One – Transmission Security & Adequacy

1. **The 10-year Study Period resulted in a significant reduction in transfer limits in the Lower Hudson Valley in order to maintain the security of the transmission system. The major factor driving the reduction in transfer limits was the voltage performance of the New York Transmission System, which is being impacted by load growth and generator retirements.**

   - ***<u>Action Required:</u> Analysis is needed to determine how reductions in the baseline system transfer limits that result from more limiting transmission security constraints are going to be addressed in determining reliability needs.***

     A secondary action item is to re-emphasize the importance of continued progress on the part of a number of NYISO-related initiatives to address issues and concerns with the voltage performance of the bulk power system and the non-bulk system to the extent that it affects the bulk power system.

Finding Two – Plan Risk Factors

2. **The planned system meets reliability criteria based on the conditions studied, the NYISO has identified a number of risk factors that could adversely affect the plan. These factors will require ongoing review and assessment. They are:**

   1. ***If solutions were not implemented on a timely basis, electric system reliability could be put at risk.***

      <u>Action Required</u>: Implement monitoring system.

   2. ***The majority of planned generator additions in this plan will be natural gas fired units with Number 2 fuel oil or kerosene as the back up.***

      <u>Action Required</u>: System fuel diversity needs to be monitored on a continuous basis.

   3. ***The plan depends increasingly on the availability of capacity resources in neighboring control areas.***

      <u>Action Required</u>: The Northeast ISO/RTOs will need to assess whether sufficient resources are being developed on a regional basis to maintain resource adequacy in all areas.

Finding Two – Continued

5. ***Transmission solutions were submitted as alternative regulated while market-based generation solutions also stated that their viability may depend upon entry into long-term contracts for the sale of their output in combination with spot market sales.***

   <u>Action Required</u>: The Independent Market Adviser will review the CRP findings.

4. ***Increased load growth or retirement of additional generating units beyond those already included in the plan for either economic and/or environmental factors, as well as continued degradation of the voltage performance of the New York System, would adversely affect reliability.***

   <u>Action Required</u>: The next round of the CRPP process needs to progress on schedule. Just as important as the plan itself is the process of planning and the ongoing monitoring it provides. Emphasis should be placed on thoroughly identifying and addressing environmental factors that may lead to additional generating unit retirements.

CRP Presented to MC for Approval

- **The Draft CRP was approved unanimously without abstentions by the OC at a special meeting held on 7/25/2006**
- **The NYISO Board reviewed the draft CRP, and suggested the following clarifications to the CRP:**
  - ***Page 14 footnote clarification:***
  - **Original: During the evaluation of the solutions, modeling updates were made that lead to a restoration in transfer capability approximately 1/3 of the reduction in capability. The inclusion of the M29 transmission project, which was evaluated in an RNA sensitivity when combined with the modeling changes resulted in a restoration in transfer capability by approximately ½ of the reduced level.**
  - **Revised: During the evaluation of the solutions this transfer capability was restored to 3,500 MW. The improvement in transfer capability was the result of modeling updates that were made (approximately a 300-400 MW improvement in transfer capability) with the balance (approximately 1,100 – 1,200 MW improvement in transfer capability) resulting from system upgrades such as the M29 transmission project, which was originally evaluated as an RNA sensitivity.**
    - ***Comments on this proposed revision are noted in next slide***
  - ***Page 4 and Page 42 added Article X language:***
  - **Also, the absence of a "one-stop" siting process could impede the construction and operation of new generating facilities to meet reliability needs.**
  - **The New York State Legislature should reenact Article X of the Public Service Law.**

Proposed Edits to Revised Footnote on Page 14

As proposed on prior slide:

- ***As Revised:*** ***During the evaluation of the solutions this transfer capability was restored to 3,500 MW. The improvement in transfer capability was the result of modeling updates that were made (approximately a 300-400 MW improvement in transfer capability) with the balance (approximately 1,100 – 1,200 MW improvement in transfer capability) resulting from system upgrades such as the M29 transmission project, which was originally evaluated as an RNA sensitivity.***

As proposed with additional MP comments:

- ***Proposed Edits: During the evaluation of the solutions this transfer capability was restored to 3,500 MW which resulted in a net reduction in transfer capability of 200 MW. The improvement in transfer capability was the result of modeling updates that were made (an approximately 400 MW improvement in transfer capability) with the balance (an approximately 900 MW improvement in transfer capability) resulting from system upgrades such as the M29 transmission project, which was originally evaluated as an RNA sensitivity.***

CRP Motion for Management Committee

Motion:

Motion to recommend that the NYISO Board of Directors approve the NYISO 2005 Comprehensive Reliability Plan (CRP), as acted upon by the Operating Committee on July 25, 2006, and as presented, with modifications, to the Management Committee at its special meeting August 8, 2006.

The 2005 CRP was the subject of prior review by the Electric System Planning Working Group and the Transmission Planning Advisory Subcommittee prior to Operating Committee action.