

NYISO's "Planning Strawman"

In Response to Order 890

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Outline

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BACKGROUND

NYISO's Market-Based Philosophy

- NYISO is a strong believer in the power of markets and strives to achieve market-based solutions whenever possible
 - *Market design & rules*
 - *Planning process*
- This philosophy has been generally supported by the NYS PSC and most other stakeholders and market participants
 - *NYISO utilizes an open and transparent process with stakeholder participation*
- The NYISO's markets and LMP pricing signals provide the benefits of competition while achieving the intended results (e.g.– majority of new merchant generation & transmission proposed for SE NY region)
- Developers and investors can assess normal market risks reasonably well
 - *Risk of regulatory intervention is less certain*
 - *Uncertainty of regulatory intervention can have a chilling effect on the market*

Development of NYISO's Current Planning Process

- Phased approach
 - *Phase I: Reliability Needs*
 - *Phase II: Economic Considerations*
- Anchored in NYISO's market-based philosophy
- Dedicated stakeholder group was established in June 2003
 - *Electric System Planning Working Group (ESPWG)*
 - *Outgrowth of NYISO's Strategic Planning process*
 - *ESPWG has a continuing role during implementation*
- Active participation by market participants and NYPSC Staff throughout this process

NYISO's Planning Responsibilities

- NYISO is the transmission service provider for New York in accordance with its OATT
- NYISO's Comprehensive Reliability Planning Process ("CRPP")
 - *Attachment Y to NYISO OATT*
 - *Applicable to NYS Bulk Power Transmission Facilities ("BPTF")*
 - *Based upon Annual Transmission Review for NPCC*
 - *Applicable to facilities generally above 115KV*
- NYISO administers the interconnection process for all transmission interconnections in New York
 - *Attachment X (LGIP) & Attachment Z (SGIP)*
 - *Attachment S – Interconnection Cost Allocation*

NY TO's Planning Responsibilities

- Responsible for planning for the reliability of their local systems
- TO plans are submitted to the NYISO for review
- TO plans are used as input to the NYISO's CRPP & Interconnection System Impact Studies
- TOs assist NYISO with respect to modeling of their local systems
- TOs assist NYISO in performance of Facilities Studies for interconnections
- TOs also have responsibility for reliability under NY Public Service Law

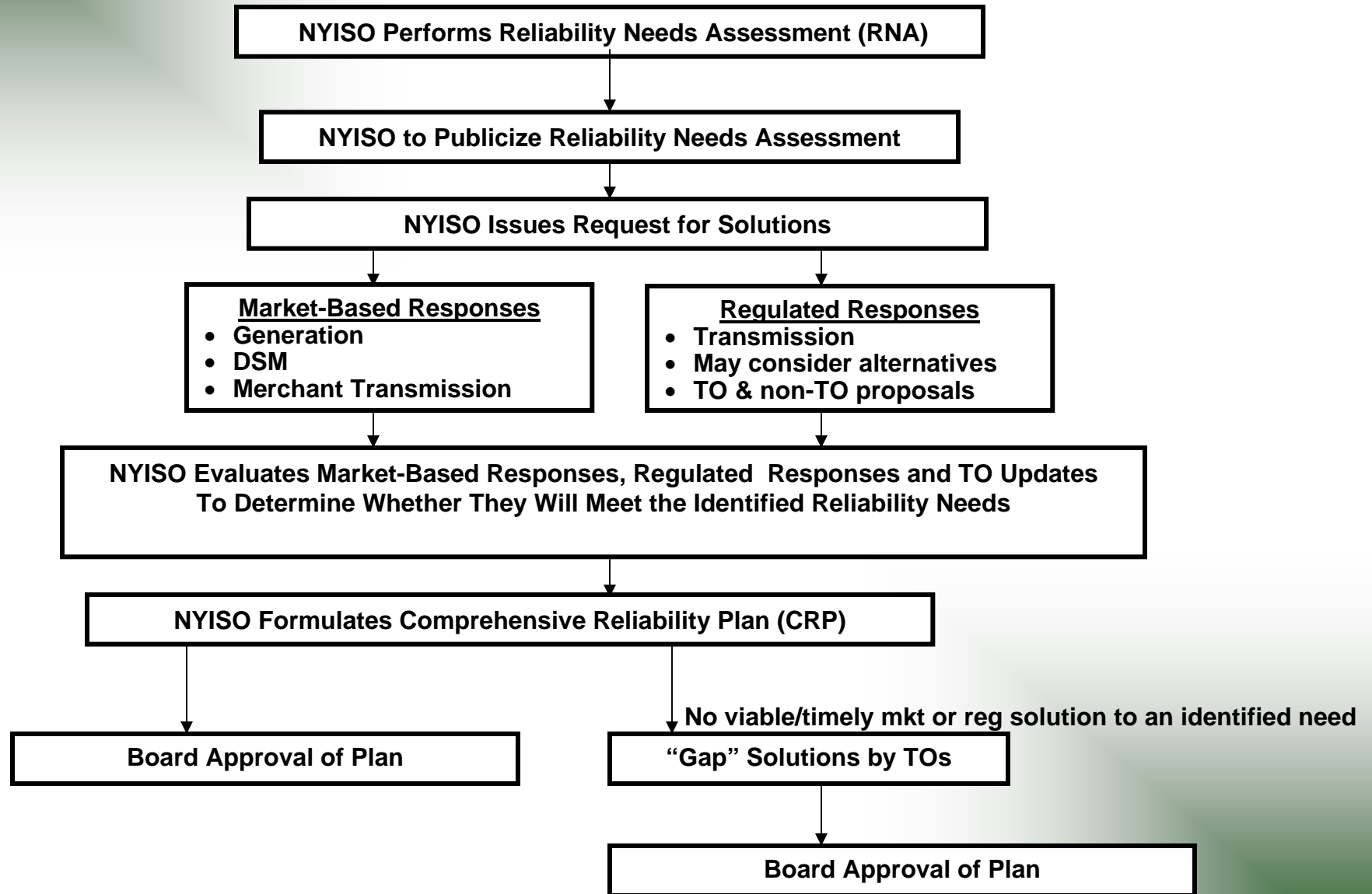
NYISO's Comprehensive Reliability Planning Process (CRPP)

(See Appendix A)

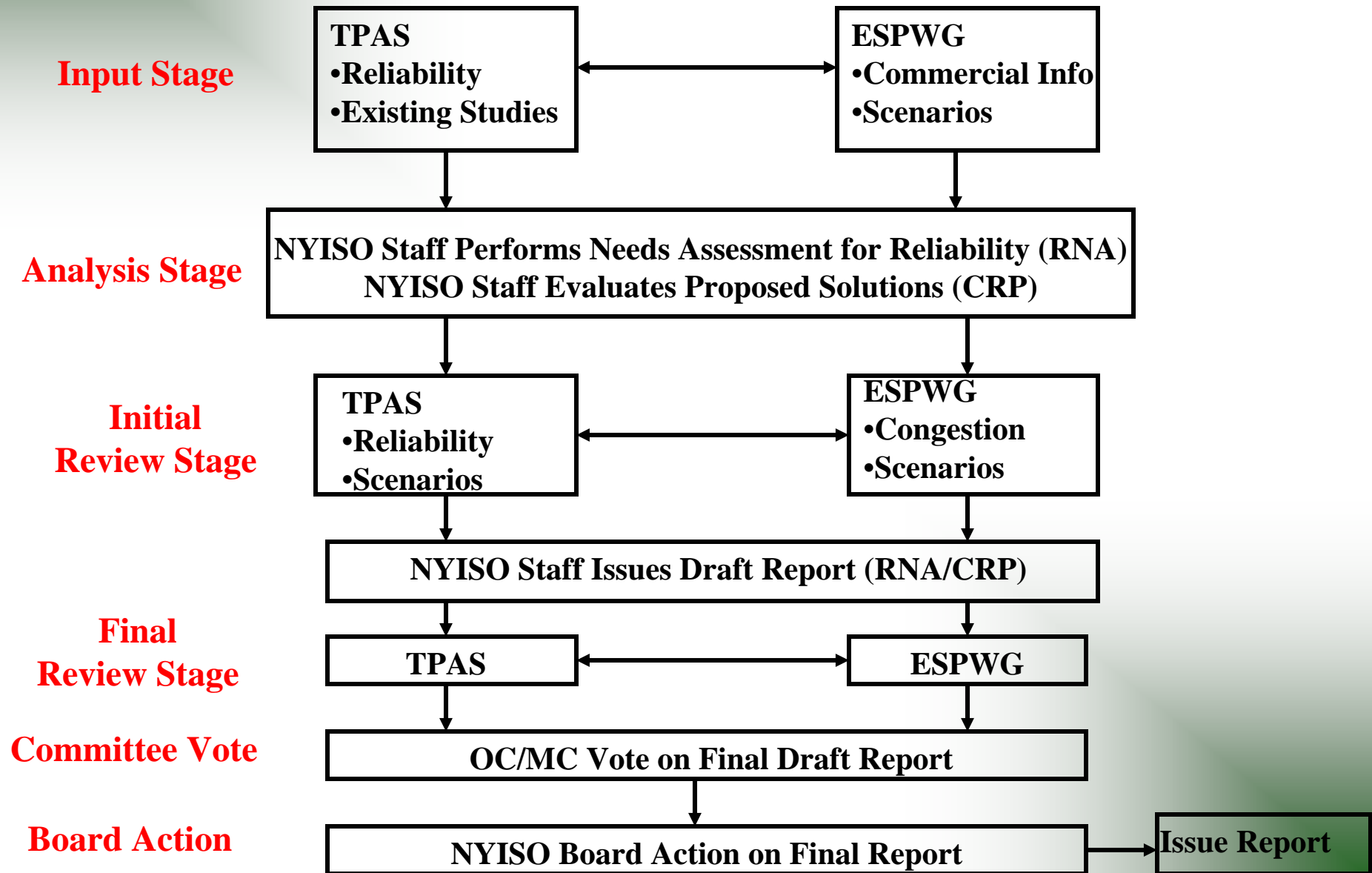
Phase I: Reliability Needs (CRPP)

- NYISO proposed a Comprehensive Planning Process for the identification and resolution of reliability needs that was approved by FERC on December 28, 2004
 - *Contained in NYISO OATT: Attachment Y*
- The CRPP also includes a methodology for the analysis and reporting of historic congestion costs
 - *Utilizing agreed-upon metrics*
- The Commission found the NYISO CRPP:
 - *to "...properly balance.." consideration of market-based and regulated solutions; and that*
 - *"It is certainly a substantial improvement over planning processes that have traditionally depended upon TO-developed regulated solutions."*

NYISO Comprehensive Reliability Planning Process



NYISO CRPP: Stakeholder Participation



NYISO's Economic Planning Process

(See Appendix B)

Phase II: Economic Considerations

- NYISO began stakeholder discussions on economic issues immediately following the filing of its CRPP proposal with FERC
- NYISO presented its “Strawman” proposal to the ESPWG in November 2004
- NYISO Economic Planning “Strawman” was approved by the NYISO Operating Committee in February 2005
 - *Received support from all stakeholder sectors*
 - *Filed with FERC as part of the CRPP status report in March '05*
 - *Accepted by FERC in June '05*

NYISO's Existing Economic Planning Process

- Expanded reporting of historic congestion
- Focus on enhanced market-based initiatives
- Perform future estimates of congestion
- Economic upgrades are participant funded
- Provides for analysis of proposed economic upgrades in accordance with NYISO Tariff
- NYISO does not:
 - *Determine congestion thresholds*
 - *Propose solutions*
 - *Perform cost-benefit /cost allocation*
 - *Direct construction of economic upgrades*

Interregional Planning & Coordination

ISO/RTO Regional Planning: Common Principles*

1. Independent analysis performed by ISO/RTOs
2. Includes both reliability & economic components
3. Open & transparent stakeholder process
4. Market-based solutions
5. Consider all resources
6. Regulated backstop solutions—if needed
7. ISO/RTO Board approves final Plan

* See ISO/RTO Electric System Planning Report, IRC Planning Committee, February 2006



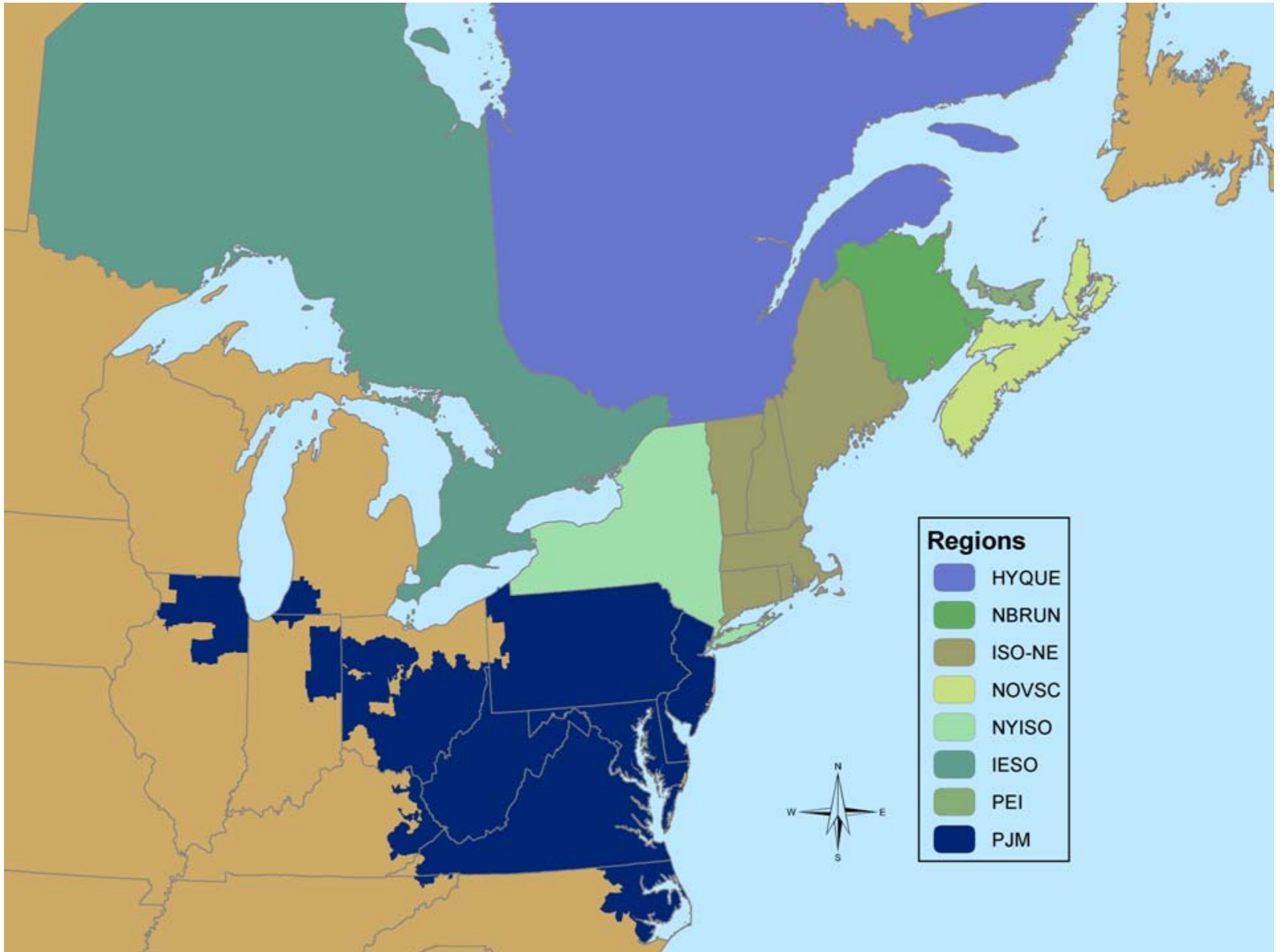
Northeast: Interregional Planning

- Informal coordination between ISO/RTOs and neighboring Control Areas has always existed
- NPCC and Reliability First coordinate planning within and between their regions
- Broader level interregional planning
 - *Former “MEN” and “VEM” groups—now under ERAG*
- Northeastern ISO/RTOs realized that a more structured agreement could enhance the existing process and reduce seams among the regions

Northeastern ISO/RTO Coordination of Planning Protocol (See Appendix C)

- Northeastern Protocol was executed in December 2004 by ISO-NE, NYISO & PJM
 - *IESO, Hydro-Quebec Transenergie & New Brunswick are participating on a limited basis*
 - *Supported by NPCC Staff*
 - *Regional stakeholder committee ("IPSAC")*
 - *Website: www.interiso.com*

- Objectives of Protocol
 - *Provide a vehicle for enhanced coordination of planning throughout the Northeast*
 - *Resolve planning-related seams issues*
 - *Enhance coordinated performance of the bulk system*
 - *Support and supplement (not replace or supercede) each ISO's individual regional planning procedures*
 - *Protocol will be modified as needed to ensure consistency with RTO/ISOs' tariffs*
 - ▶ Tariff changes are subject to respective RTO/ISO governance



Northeastern Coordinated System Plan (“NCSP”)

- The First NCSP was published in April 2005
- Three regional stakeholder (IPSAC) meetings held during 2005 & 2006 to obtain input/suggestions
- Fourth IPSAC Meeting was held in Albany on March 23, 2007 to provide feedback to stakeholders
- ISOs presented results of analyses in several areas
 - *Fuel diversity: electric/gas infrastructure issues*
 - *Resource adequacy: unit retirements*
 - *Transmission adequacy*
 - ▶ PJM Loss-of source study
 - ▶ NYISO loss-of-source study
 - *Inter-area oscillations*
 - *Environmental Issues*

NYISO's Approach to Order 890

NYISO's Approach to Order 890

- Work with ESPWG/TPAS to develop planning "Strawman"
 - *5 ESPWG meetings held from March to early May*
 - *NYISO proposed draft "Strawman" in early April*
 - *Separate discussions held with NY PSC, TOs & other Sectors*
- Demonstrate that NYISO's existing planning process already meets most of the FERC planning principles:
 - *Coordination; Openness; Transparency; Information Exchange; Comparability; Dispute Resolution*
- CRPP also meets the following principles for reliability needs:
 - *Regional Participation; Cost Allocation*
- Modify NYISO's existing economic planning process to address the Economic Planning Principle
 - *Including Cost Allocation*
- Address the Regional Participation Principle through the Northeast ISO/RTO Coordination of Planning Protocol

NYISO's Approach: Economic Planning

- Begin with NYISO's Economic Planning Strawman that was approved by the OC in February '05
- Compare with the requirements of Order 890
- Outline a process for prioritization & selection of congestion studies which are of most value to MPs
 - *To include studies for the "integration of new generation resources on a regional basis"*
 - *Identification of potential solutions*
 - *Develop a process for "additional studies"*
- Address cost allocation principles
- Align with existing CRPP process
- Consider NYISO resource requirements/limitations

NYISO's Planning Strawman

NYISO's Draft "Planning Strawman"

Two-part document:

- Documentation showing how the existing NYISO planning process fully meets most of Order 890's nine "Planning Principles"
 - *Recognizes FERC's intent "not to re-open prior approvals"*
 - *Similar to the approach taken by other ISO/RTOs*
 - *Supported by NYISO Stakeholders*
- Attachment: "Economic Planning Strawman"
 - *Proposed modifications to existing planning process to address Order 890's requirements*
 - *Large majority—but not universal—stakeholder support*

FERC's Nine "Planning Principles"

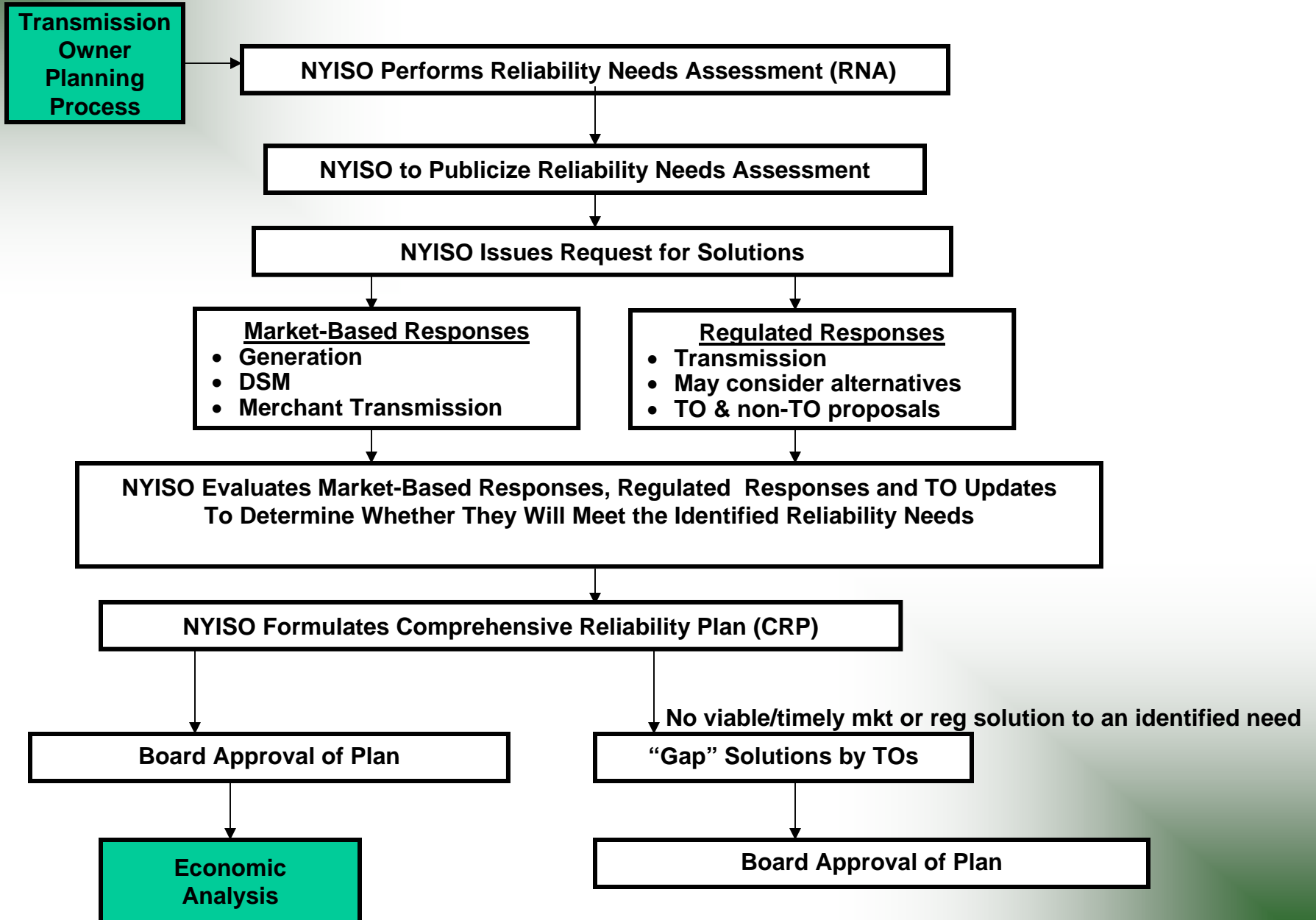
- NYISO's CRPP already satisfies the following FERC planning principles:
 - *Coordination*
 - *Openness*
 - *Transparency*
 - *Information Exchange*
 - *Comparability*
 - *Dispute Resolution*
 - *Cost Allocation (for reliability)*
 - *Interregional Participation (for reliability)*

Proposed Enhancements

- To address the NY Transmission Owners' planning role in the context of the NYISO planning process
 - *To provide a more transparent forum for presentation and discussion of TOs' local transmission plans*
 - *Separate presentation by NYTOs*

- Enhancements are proposed to the existing NYISO Economic Planning process
 - *To address the additional requirements of Order 890*
 - *To build upon the results of the CRPP process*
 - *To include cost allocation principles*

NYISO Proposed “Strawman” Planning Process



NYISO Economic Planning Strawman

Major Modifications to Existing NYISO Process

- Addition of a process for identification and prioritization of congestion studies
 - *To be developed jointly with stakeholders*
 - *Distinguish from other Tariff study requirements*
- Alignment with CRPP
 - *Propose a sequential process*
 - *Build upon the results of the CRPP*
- Addition of cost allocation principles

Other Issues

- A large majority of NYISO's stakeholders continue to advocate an "information only" role for the NYISO re: economic issues
- Many stakeholders have expressed a concern for budgetary and resource impacts on the NYISO
- While there is general agreement on the cost allocation principles for economic projects, the need for development of a specific methodology remains contentious
- Regional Participation: cost allocation will be even more difficult to resolve

Next Steps

Next Steps

- Strawman Posted: May 29th
- FERC Technical Conference: TODAY
 - *Stakeholder discussion*
 - *Input from FERC Staff*
- Develop Tariff modifications with stakeholder input
 - *July-September*
 - *Focus on Economic Planning/Cost Allocation*
 - *Incorporate TO's Local Planning Process*
 - *Minor modifications to existing CRPP process*
- Compliance Filing: due October 11th

APPENDIX A

NYISO'S Comprehensive Reliability Planning Process (CRPP)

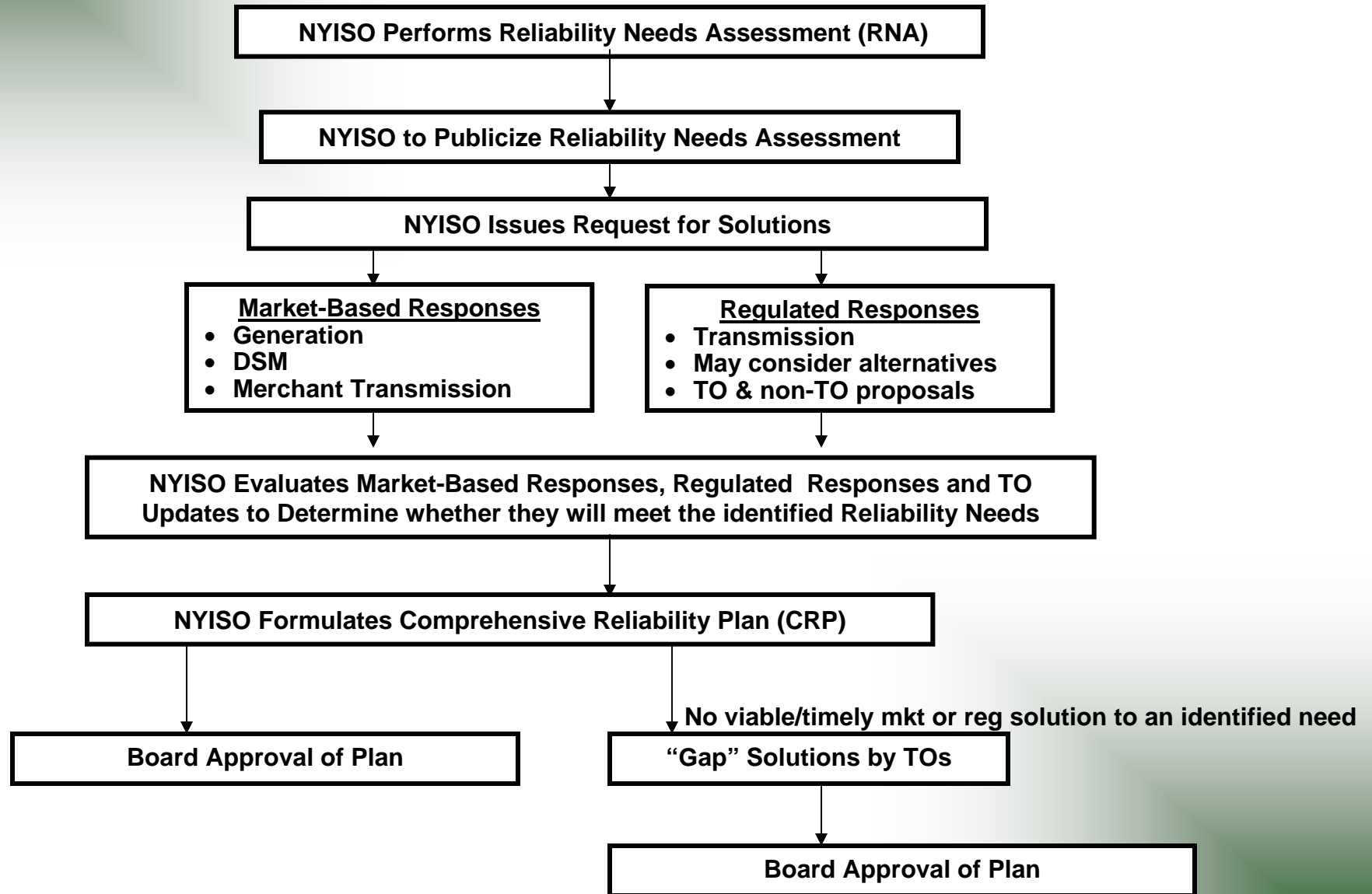
Phase I: Reliability Needs (CRPP)

- Established a Comprehensive Planning Process for the identification and resolution of reliability needs that was approved by FERC on December 28, 2005
- The proposal included a methodology for the analysis and reporting of historic congestion costs
- FERC found the NYISO CRPP:
 - *to “properly balance” consideration of market-based and regulated solutions; and that*
 - *“It is certainly a substantial improvement over planning processes that have traditionally depended upon TO developed regulated solutions.”*

NYISO Comprehensive Reliability Planning Process

- Establishes a formal long-term (10-year) planning process for the NYISO
 - *Provides for both market-based & regulated backstop solutions*
 - *Addresses roles of NYISO, FERC and NY PSC*
 - *Addresses cost allocation and cost recovery issues*
 - *Provides a commitment to investigate cause of potential market failure and to modify market rules as needed*
 - *NYISO-TO Agreement addresses TOs' rights and obligations under CRPP*
- Meets NYISO Objective: To ensure that upgrades will be built when needed for reliability

NYISO's Comprehensive Reliability Planning Process



Reliability Needs Assessment (“RNA”)

- NYISO Staff will perform a Reliability Needs Assessment over the 10-year planning horizon based upon existing reliability criteria
- Scenario analysis will be employed to test the robustness of the base case assumptions
- RNA will identify violations of reliability criteria, but will not identify specific facilities to meet the identified needs
- Provision for MP input & review of RNA
 - *Through ESPWG & TPAS*
 - *Vote at OC and MC*
- Provision for coordination with adjacent regions
- NYISO Board has final approval of RNA
- The final approved Reliability Needs Assessment will be widely distributed
 - *Posted on NYISO website*

Request for Solutions

- Following issuance of its RNA, the NYISO will provide an appropriate time period for the development of market-based & regulated responses
- Process is open to all resources
- NOT a formal “RFP” process
- When a Reliability Need is first identified by the NYISO:
 - *TOs have obligation to prepare a regulated backstop proposal*
 - *Such proposals are not limited to transmission*
 - *Development time for the regulated backstop provides the benchmark for the lead time for non-TO alternate proposals*

Request For Solutions (Cont'd)

- Market-based proposals are prepared in parallel with regulated backstop proposals
 - *All resources are eligible: generation, merchant transmission, demand response*
- Non-TOs may submit alternative regulated proposals to the NYDPS for consideration
 - *Such proposals which satisfy the DPS may be submitted to the NYISO for evaluation*

NYISO Evaluation Process

- NYISO will evaluate all proposals to determine if they will meet the identified reliability needs
- Regulated backstop proposals by TOs will establish the lead time for non-TO proposals
- If Market-based proposals are judged sufficient to meet the identified needs in a timely manner, the Comprehensive Reliability Plan ("CRP") will so state
 - *NYISO will not select from among the market-based responses*
 - *NYISO will monitor status of market-based projects to ensure needs will continue to be met as part of its annual update process*

NYISO Evaluation Process (Cont'd)

- If Market proposals are judged insufficient, NYISO will indicate that a regulated solution is needed in the CRP
- NYISO will evaluate non-TO regulated alternatives to determine whether they will meet the identified need, and will report its evaluation in the CRP
- If market-based proposals are not forthcoming
 - *NYISO and its Independent Market Advisor will investigate whether that is due to market failure in one of its markets*
 - *If so, NYISO and its IMA will examine appropriate modifications to its market rules with MPs.*

CRP Review and Approval Process

- NYISO staff issues draft CRP including designated regulated backstop solutions, if needed, to meet identified reliability needs
- NYISO Staff draft CRP is circulated for stakeholder review and comment
- NYISO staff makes revisions as appropriate
- Final draft CRP is sent to the appropriate stakeholder committees for review and vote
- NYISO staff makes revisions as appropriate
- Final draft CRP sent to Board for approval
 - *Provision for remand to Management Committee*
 - *NYISO Board to have final approval of CRP*
- CRP provided to regulatory agencies for their consideration
 - *Posted on NYISO website*

Implementation of Regulated Backstop Solution

- If market-based solutions are insufficient to meet Reliability Needs by need date
- NYISO can “trigger” a regulated backstop solution
- CRP will indicate the need to trigger a regulated solution
- NYISO requests Responsible TO(-s) to seek regulatory approval of backstop solution
- PSC and other regulatory agencies proceed with their review & approval
 - *Alternate regulatory solutions may be proposed for consideration*
- Regulated project proceeds to implementation
 - *Unless halted by the NYISO due to the appearance of a viable market-based project*

“Gap” Solutions for Immediate Needs

- If neither market proposals nor regulated proposals can satisfy the need in a timely manner, the NYISO may trigger a “Gap” solution
 - *NYISO may seek a gap solution outside of the normal Planning Process if there is an imminent threat to reliability*
 - *NYISO will not contract directly for gap resources*
- TOs assume the obligation to immediately propose a “gap solution” for consideration by the NYISO and DPS
- To the extent possible, the gap solution should be temporary and strive to ensure that market based solutions will not be economically harmed
- A permanent regulated solution, if appropriate, may proceed in parallel with gap measures

Cost Allocation and Cost Recovery

- Cost Allocation for Regulated Projects
 - *Based upon a “beneficiaries pay” principle*
 - *Specific methodology to be developed by NYISO/ESPWG*
 - *Near-term reliability needs are not anticipated based upon Phase I needs assessment*

- Cost Recovery for Regulated Projects
 - *Transmission solutions*
 - ▶ TOs to file for recovery with FERC
 - ▶ Recovery proposed through a separate rate schedule under the NYISO Tariff
 - *Non-transmission solutions (generation & demand response)*
 - ▶ In accordance with NYS Public Service Law

NYISO-TO Agreement

- Defines TO rights and obligations with respect to the Comprehensive Reliability Planning Process
- TOs assume obligation to provide backstop regulated solutions
 - *If NYISO determines that there are no viable market-based solutions which will meet identified Reliability Needs*
 - *Subject to cost recovery, permitting and other conditions*
- **Supplements existing NYISO/TO Agreement**
 - *Not subject to OC/MC approval*
- **Approved by FERC**

Role of the NYS PSC

- Reviews “regulated alternatives” proposed by TOs or other developers upon request
- Reviews and screens “gap” solutions
- Adjudicates disputes relating to reliability determinations in final RNA and in CRP if solely within NYSPSC’s jurisdiction
- Reviews TOs’ backstop solution when NYISO determines action is necessary to ensure reliability
- PSC has final siting & certification authority with respect to solution ultimately implemented
- PSC participation in the NYISO process will facilitate necessary approvals to ensure reliability

APPENDIX B

NYISO's Existing Economic Planning Process

NYISO's Approved Economic Planning "Strawman"

- Strawman was initially presented to ESPWG in November 2004
- Approved by the NYISO Operating Committee in February 2005
 - *Received support from all stakeholder sectors*
 - *Supported by the NYS PSC*
- Filed with FERC as part of the CRPP status report in March '05
 - *Accepted by FERC in June '05*

Economic Planning Process

- Expanded reporting of historic congestion
 - *Quarterly postings on NYISO website (In Place)*
 - *Track congestion by key constraints (In Place)*
 - *Perform “what-if” analysis*
 - *Report on other economic parameters*
- Focus on enhanced market-based initiatives
 - *Analyze performance of all NYISO markets*
 - *Identify areas for improvement*
 - *Pursue improvements through NYISO committee process*

Economic Planning Process (Cont'd)

➤ Future estimates of congestion

- *Based upon CRPP 10-year planning horizon*
- *Assumptions developed in an open transparent process*
- *Perform "what-if" analyses for various scenarios*
- *Publish results with appropriate assumptions & caveats*

➤ NYISO analysis of proposed upgrades

- *To ensure reliability (CRPP & Interconnection Process)*
- *Cost allocation for System Upgrade Facilities (Attachment S)*
- *TCC allocation*
- *Eligibility for Unforced Capacity Deliverability Rights (UDRs)*

Economic Planning Process (Cont'd)

- Economic upgrades are proposed by the marketplace and are participant funded
- The NYISO does NOT:
 - *Determine a threshold for congestion that requires a specific action*
 - *Propose solutions*
 - *Draw any conclusions pertaining to the potential economics of a proposed upgrade*
 - *Perform cost/benefit analysis*
 - *Perform cost allocation analysis*
 - *Mandate solutions*

APPENDIX C

Northeastern ISO/RTO Coordination of Planning Protocol

Northeast Planning Region: Statistics (2005 Data)

- US Regions: ISO-NE, NYISO & PJM
 - *Load: 188,000MW*
 - *Capacity: 232,000MW*
 - *Population Served: 84.4 Million (29% of US)*
- Canadian Regions: Ontario, Quebec, Maritimes
 - *Load: 47,000MW*
 - *Capacity: 68,000MW*
 - *Population Served: 21 Million (66% of Canadian)*

Northeastern ISO/RTO Coordination of Planning Protocol

- Northeastern Protocol was executed in December 2004 by ISO-NE, NYISO & PJM
 - *IESO, Hydro-Quebec Transenergie & New Brunswick are participating on a limited basis*
 - *Supported by NPCC Staff*

- Objectives of Protocol
 - *Provide a vehicle for enhanced coordination of planning throughout the Northeast*
 - *Resolve planning-related seams issues*
 - *Enhance coordinated performance of the bulk system*
 - *Support and supplement (not replace or supercede) each ISO's individual regional planning procedures*
 - *Protocol will be modified as needed to ensure consistency with RTO/ISOs' tariffs*
 - ▶ Tariff changes are subject to respective RTO/ISO governance

Northeastern Protocol: Key Elements

ADMINISTRATIVE FEATURES

- Establish a Joint ISO/RTO Planning Committee ("JIPC")
 - *To oversee all planning activities under the protocol*
 - *Senior Planning Staff of Parties & Canadian participants*
- Establish an Inter-Area Planning Stakeholder Advisory Committee ("IPSAC")
 - *To ensure stakeholder input during the planning process*
 - *Open to all stakeholders from the Northeast region*
- Establishment of a web site: www.interiso.com
 - *Maintained by NPCC*

Northeastern Protocol: Key Elements

(Cont'd)

TECHNICAL INITIATIVES

Procedures Established for:

- *Data and information exchange*
- *Analysis of interconnection requests*
- *Analysis of transmission service requests*
- *Development of a Northeastern Coordinated System Plan "(NCSP")*

OTHER PROVISIONS

➤ **Cost Allocation**

- *Place-holder provided*
 - ▶ "Cost allocation for elements of the NSCP will be addressed consistent with the applicable provisions of each ISOs tariff"

➤ **Dispute Resolution**

- *Includes all aspects of the protocol*
- *May employ a third-party for dispute resolution if desired*

Northeastern Coordinated System Plan “(NCSP”): 2005

- Issued to stakeholders on April 6, 2005
- Consolidates each region’s current system assessments and plans
 - *Includes summaries of most recent plans*
 - *Includes references to August 2003 Blackout response initiatives*
 - *Links provided to complete reports*
- Includes NPCC, MAAC & other interregional planning initiatives
- Identifies inter-area system planning issues & risks
- Identifies potential issues for future analysis
- Intended to serve as the basis for a fully coordinated NCSP to be issued in mid-2006

NCSP 2006: Issues & Risks

- Fourth IPSAC Meeting was held in Albany on March 23, 2007
- ISOs presented results of analyses in several areas
 - *Fuel diversity: electric/gas infrastructure issues*
 - *Resource adequacy: unit retirements*
 - *Transmission adequacy*
 - ▶ PJM Loss-of source study
 - ▶ NYISO loss-of-source study
 - *Inter-area oscillations*
 - *Environmental Issues*