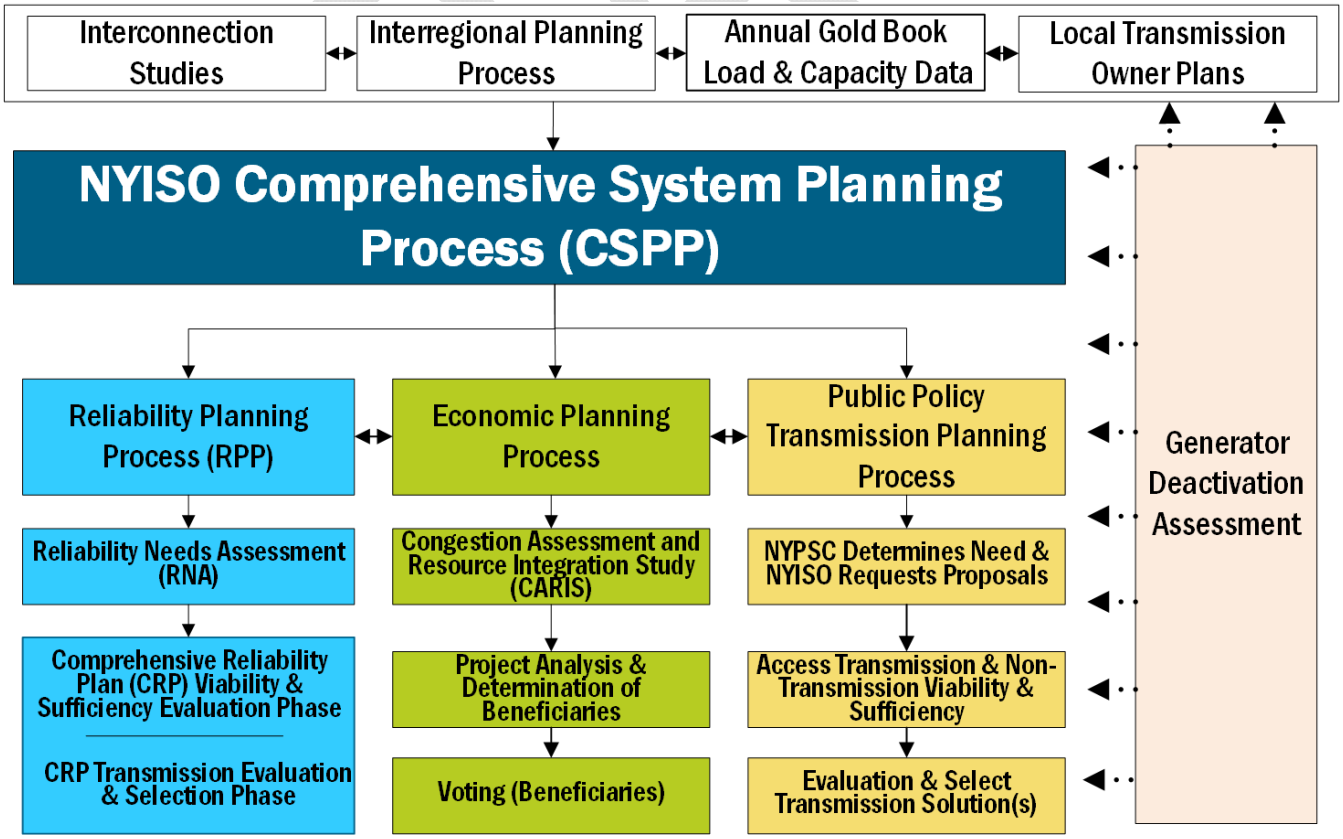
COMPREHENSIVE SYSTEM PLANNING PROCESS REVIEW:
PROPOSED PLANNING PROCESS STRUCTURE
PREPARED FOR 12/4/2018 ESPWG/TPAS

I. Project Objectives

The NYISO faces challenges to plan for future system needs in the midst of significant changes in the bulk power system in the next five to ten years, including generation fleet turn-over, aging infrastructure, entry of new technologies, and energy and environmental policy requirements. The NYISO's Comprehensive System Planning Process ("CSPP") must be structured to proactively address these challenges well in advance to timely develop and implement short-term solutions and long-term infrastructure upgrades. Accordingly, the NYISO identified a 2018-2019 corporate project to review all components of its planning processes and consider the benefits of revising and/or further integrating the reliability, economic, and public policy processes.

The CSPP has four components—the local transmission planning process, the reliability planning process, the economic planning process (primarily consisting of the Congestion Assessment and Resource Integration Study or "CARIS"), and the public policy transmission planning process ("Public Policy Process"). The CSPP originally took form with the NYISO's reliability planning process, first approved by the FERC in 2004, and, thereafter, went through several revisions primarily in response to FERC Order No. 890 (adding local transmission and economic planning) and Order No. 1000 (adding public policy planning and a competitive selection process to reliability planning). For reference, the following diagram depicts the current structure of the CSPP; a detailed flowchart is provided in Appendix A.

Current CSPP Structure



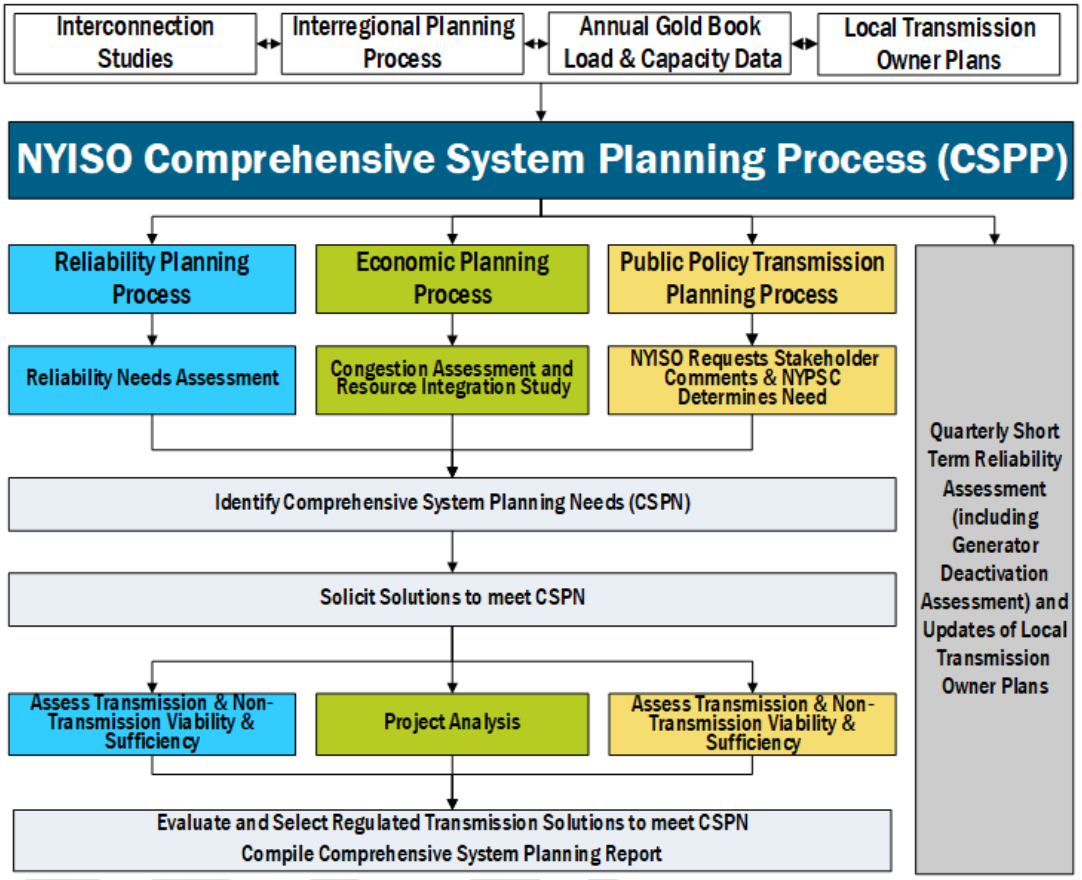
Under the current CSPP, while the various components build off of each other by using consistent databases and firm project plans as inputs, each component is relatively isolated from the others in identifying system issues and specifying solution requirements. For example, the reliability planning process addresses the resource adequacy and transmission security of the New York Bulk Power Transmission Facilities once every two years. In between planning cycles, the NYISO conducts Generator Deactivation Assessments for every generator deactivation notice. CARIS identifies economic opportunities based upon historic and projected congestion. While CARIS evaluates economic solutions utilizing several economic benefit metrics, the process uses production cost savings as the sole metric for economic transmission projects to obtain approval, which has proven to be a high barrier for projects to achieve. The Public Policy Process is designed to address transmission needs identified by the New York Public Service Commission ("PSC"). Unlike the other components, the Public Policy Process can evaluate reliability and economics issues in selection of projects; however, it is entirely dependent on the manner in which the PSC defines the transmission need.

The CSPP, as modified over the years, has not been designed to address reliability, economic, and public policy needs through a single cohesive solicitation, evaluation and selection process. The current structure could easily lead to inefficient piecemeal system design when addressing multiple system issues. Based upon the NYISO's experience in past cycles of the CSPP and the need to respond to the significant system changes in the foreseeable future, the planning process must become more agile to address short-term needs while also becoming more comprehensive to address long-term needs identified in the reliability, economic, and public policy processes. The objective of this project is to review the existing processes and recommend revisions and enhancements for discussion with stakeholders, leading to the development of tariff revisions for stakeholder and Board approval, and filing with the FERC under Section 205 of the Federal Power Act. The first step of this project is to present a concept of process improvements to stakeholders by the end of 2018. This memorandum describes the preliminary concepts and principles that have been developed by NYISO staff.

II. Preliminary Conceptual CSPP Structure

The NYISO staff has developed the preliminary conceptual CSPP structure depicted in the following diagram; a detailed flowchart is included in Appendix B.

Conceptual CSPP Structure



To guide the work ahead in developing the details of a revised process, the NYISO staff has drafted the following concept principles regarding what the CSPP should achieve:

Concept Principle #1: Be an authoritative source of information and identify comprehensive system planning needs.

The NYISO staff will continue to serve as the authoritative source of information on key issues within the New York Control Area under this proposal. By aligning the separate processes into a single set of needs, the NYISO would be enhancing the timing and usefulness of the information for the comprehensive planning of the bulk power system for the benefit of stakeholders, policy makers, and developers. The NYISO also intends to propose revisions specific to the CARIS process to allow for a more useful and informative report.

In the preliminary conceptual structure, the NYISO will continue to separately identify needs identified in the reliability, economic, and public policy processes, but will do so in parallel at the start of the CSPP. Following identification of the system needs, the NYISO will compile the various needs identified in the reliability, economic, and public policy processes into a profile of "comprehensive system planning needs" to be used in a single solicitation for potential solutions from Transmission Owners and developers. By bringing the separate

needs together, the NYISO will have the opportunity to resolve multiple needs simultaneously with the more efficient or cost-effective solution or portfolio of solutions. For example, if downstate is forecasted to experience reliability issues, a transmission project that also relieves congestion on key corridors may be the more efficient or cost effective solution overall for the system.

Concept Principle #2: Efficiently identify and implement solutions for reliability needs.

Under the current process, reliability needs could be identified in either the reliability planning process or the generator deactivation process. The Reliability Needs Assessment (RNA) is conducted every two years using modeling assumptions that tend to be reactive rather than proactive. In parallel with the two-year process, the NYISO must conduct Generator Deactivation Assessments separately each and every time a generator owner submits a notice of intent to deactivate. With the prospect of potentially receiving dozens of generator deactivation notices per year in the coming years, the current process is likely to be unsustainable.

The proposed structure would improve the efficiency of addressing short-term reliability needs by examining and identifying such needs through quarterly analyses using the most up-to-date information from the Transmission Owners' local transmission plans while relying on the RNA to focus on long-term reliability needs. The consolidation of the generator deactivation assessments into quarterly short-term reliability assessments will also ensure the efficient use of the NYISO and Transmission Owners' resources and afford the opportunity to address short-term reliability needs in a more comprehensive, holistic approach. Under the proposed process Transmission Owners will continue to plan for their local systems, but will provide updates to their local transmission plans on a quarterly basis, in addition to the current biennial comprehensive overview. If short-term reliability needs (within three years) are identified and market-based solutions are not sufficient to meet those needs, the Transmission Owners would be responsible for resolving these needs by providing regulated backstop solutions, as opposed to going through a competitive process of transmission solicitation. Conversely, a long-term reliability need would be included in the Comprehensive System Planning Needs and addressed through the competitive process. The NYISO will continue to solicit market based solutions.

Concept Principle #3: Favor market-based solutions while enabling efficient transmission solutions.

A core aspect of the current CSPP is the priority given to market-based solutions in the reliability planning process. Going forward, the comprehensive system planning process (reliability, economic, and public policy processes) will solicit all types (generation, transmission, and demand-side) of market-based solutions in addition to regulated transmission solutions. For economic needs, the beneficiaries will continue to vote on the proposed regulated transmission solutions having been informed of the impact of the available market-based solutions on demand congestion. For public policy transmission needs, the market-based solutions can be used to inform the PSC whether to cancel the Public Policy Transmission Need. For the reliability needs, if there are viable and sufficient market-based solutions, regulated transmission solutions would not be triggered or selected.

Overall, if regulated transmission solutions are required to satisfy a long-term need under the conceptual CSPP structure, the NYISO proposes to continue with the sponsorship model of competition that encourages all developers to propose the design, location, attributes, and costs of their solutions. If regulated transmission solutions are required to satisfy a short-term reliability need under the conceptual CSPP structure, the responsible transmission owner would provide the solution(s).

Concept Principle #4: Comply with FERC Order Nos. 890 and 1000

Any revisions to the CSPP must comply with the FERC's rulemakings on transmission planning, primarily Order Nos. 890 and 1000.

In 2007, the FERC issued Order No. 890, which required transmission providers to adopt transmission planning processes for their regions that satisfied nine principles: (1) coordination; (2) openness; (3) transparency; (4) information exchange; (5) comparability; (6) dispute resolution; (7) regional participation; (8) economic planning studies; and (9) cost allocation for new projects.

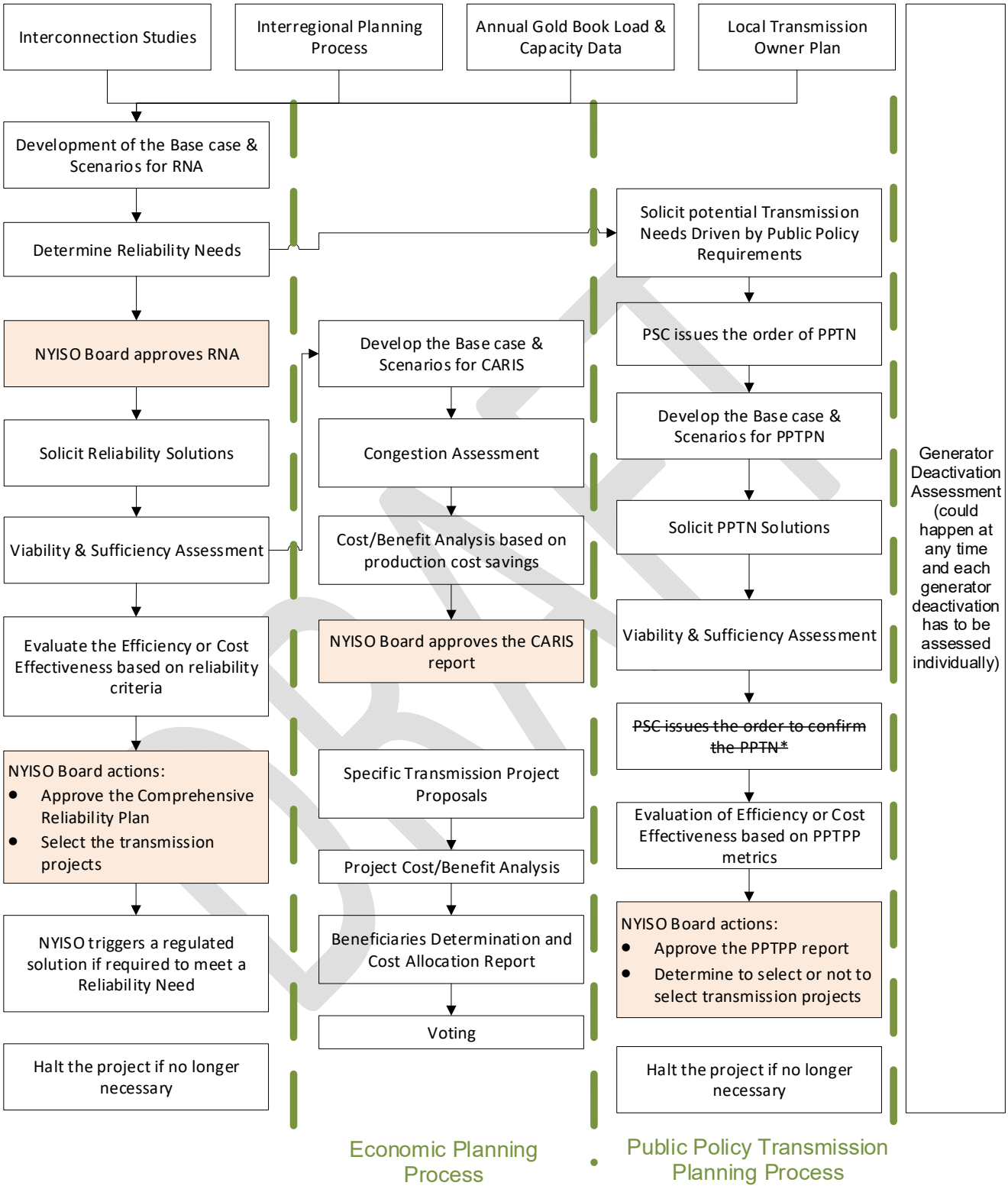
In 2011, the FERC issued Order No. 1000, which built on the transmission planning requirements in Order No. 890. Among other things, Order No. 1000 required transmission providers:

- To participate in a regional transmission planning process that satisfies the planning principles under Order No. 890 and produces a regional transmission plan;
- To address transmission needs that are driven by public policy requirements in federal, state and local law in the local and regional transmission planning processes;
- To expand interregional planning coordination with neighboring regions to determine whether there are more efficient or cost-effective solutions to the regions' mutual transmission needs;
- To implement reforms to improve competition and entry of non-incumbent developers through the removal of a federal right of first refusal, subject to four enumerated exceptions, for new transmission facilities selected in the regional transmission plan for purposes of cost allocation; and
- To establish default cost allocation methodologies for selected regional and interregional transmission solutions consistent with the six regional cost allocation principles set forth in the Order.

III. Next Steps

The proposal outlined in this memo is high-level and preliminary in nature. The NYISO staff will continue to develop a full concept for the CSPP review project by the end of the year and then continue discussions with stakeholders through 2019 to develop the details of each aspect of the planning process. Ultimately, the goal is to have fully developed tariff language for the planning process by the end of 2019.

Appendix A: Current Comprehensive System Planning Process



*Pending FERC approval

Appendix B: Preliminary Conceptual Comprehensive System Planning Process