



FERC Order 1000

NYISO Regional Planning Process

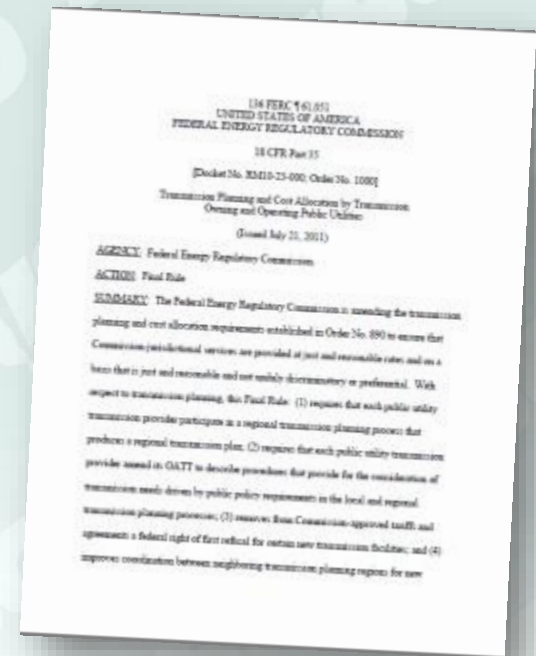
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EISPC Webinar
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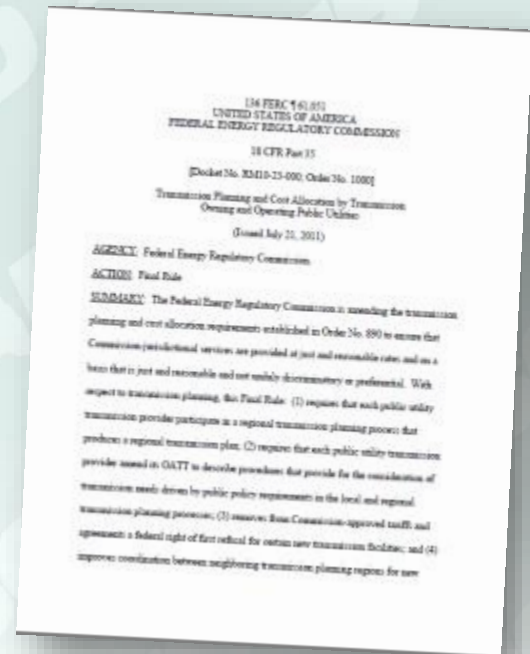
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- ◆ **Key Elements**
 - *Regional Planning*
 - *Interregional Planning*
 - *Transmission Needs Driven by Public Policy Requirements*
 - *Non-incumbent Rights – “Right of First Refusal”*
 - *Cost Allocation Requirements for Regional & Interregional Transmission Projects*



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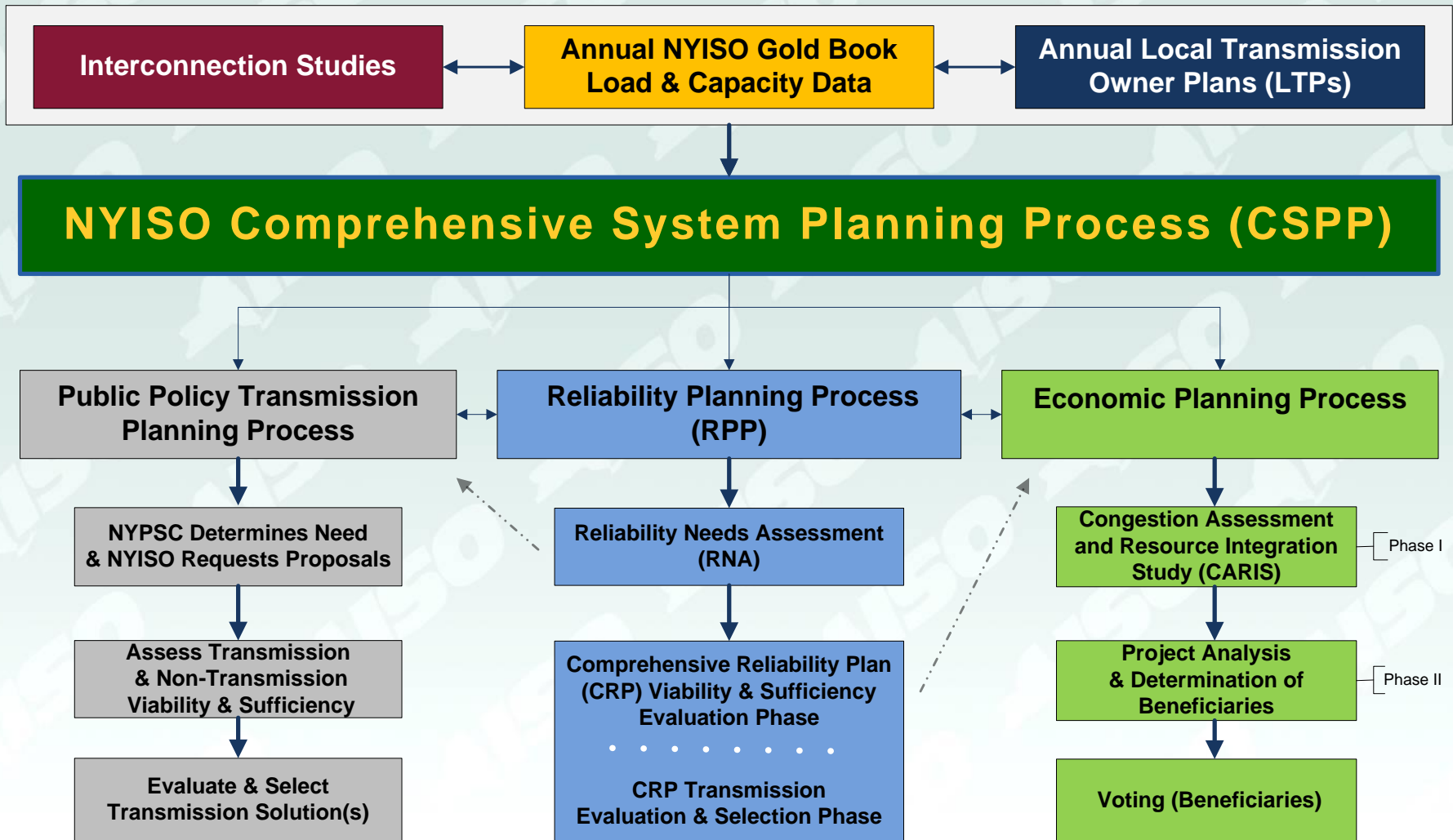
- ◆ Regional filings made throughout 2013-2016
 - *Final approval from FERC remains pending*
- ◆ NYISO Implementation began in 2014-2016 Planning Cycle



Impact on Regional Process

- ◆ **Creation of Public Policy Transmission Planning Process**
 - *Required to consider transmission needs driven by public policy*
 - *Process must provide for the solicitation and comparable evaluation of transmission and non-transmission solutions*
 - *Process must determine the more efficient or cost effective transmission solution*
 - *Process must provide an ex-ante cost allocation method*
- ◆ **NYISO selection of transmission projects**
 - *Reliability Planning Process must culminate in NYISO selecting the more efficient or cost effective transmission solution*
 - *NYISO also selects the public policy transmission solution, subject to impact on wholesale electricity markets*
 - *Selection is for purposes of cost allocation under NYISO tariffs; PSC has authority over siting*
 - *No change to Economic Planning Process: Current voting process culminates in selection*

Comprehensive System Planning Process



Reliability Process

- ◆ **After needs identified - Solutions solicited**
 - *All types: Transmission, Generation, Demand-Side*
 - *All categories: Market-based, Regulated Backstop, Alternative Regulated*
- ◆ **Evaluate all qualified solutions**
 - *Viability: Technically practicable & timely*
 - *Sufficiency: Does solution meet the identified need?*
- ◆ **Evaluate regulated transmission solutions**
 - *System Impact: Does solution cause any reliability issues?*
 - *Efficiency: How much margin does solution provide? Expandability, operability and performance of new transmission project*
 - *Economic: Total capital cost and cost-per-MW*
 - *Local Transmission Plan sensitivity: Is regional solution more efficient and cost effective than local TO plans? For information only*
- ◆ **NYISO selects transmission solution**
 - *If non-incumbent project is selected, NYISO may direct the incumbent TOs to proceed with a backstop solution in parallel to ensure reliability will be met*
 - *Regulated solution is triggered only if the market does not provide adequate solutions to maintain reliability over the 10 –year study period.*
 - *Backstop is halted when NYISO is confident non-incumbent project will succeed; halted as early as possible*

Economic Planning

- ◆ **Congestion Assessment and Resource Integration Study (CARIS)**
 - *Perform in alternate years to the RNA*
 - *Evaluate congestion and provide economic information*
- ◆ **Phase I: Study Process**
 - *Determine top congestion locations in New York*
 - *Analyze generic solutions – all resources evaluated (transmission, generation and demand response)*
 - *Provide information to developers and marketplace*
- ◆ **Phase II: Specific Projects**
 - *Transmission projects proposed by TOs and other developers*
 - *Eligibility threshold: benefit to cost ratio greater than 1.0*
 - *Cost recovery under NYISO tariff needs 80% beneficiary vote*
 - *Phase II: Additional Studies*
 - Confidential informational studies for transmission developers

Public Policy Planning

- ◆ **Public Policy Transmission Planning Process**

- *To be performed in parallel with Reliability Planning Process*
- *Evaluate solutions to transmission needs driven by public policy*

- ◆ **Phase I: Identify Needs and Solicit Solutions**

- *NYPSC identifies transmission needs driven by public policy*
- *NYISO solicits solutions (transmission, generation, or EE/DR)*
- *NYISO evaluates all proposed solutions for viability and sufficiency to meet the need*

- ◆ **Phase II: Transmission Evaluation and Selection**

- *NYISO evaluates proposed transmission solutions to identify the more efficient or cost effective transmission solution*
- *Market Monitor assesses the potential market impacts of the transmission solution*
- *NYISO Board may select a transmission solution for purposes of cost allocation under the NYISO Tariff*

Public Policy Status

- ◆ **FERC approved the NYISO's Public Policy Transmission Planning Process (PPTPP) in July 2014, with an effective date of January 1, 2014.**
- ◆ **On August 1, 2014, NYISO issued a letter inviting stakeholders and interested parties to submit proposed transmission needs driven by Public Policy Requirements.**
- ◆ **NYISO submitted the proposed needs to the PSC on October 3, 2014.**
- ◆ **On July 20, 2015, the PSC issued an order addressing Public Policy Requirements for transmission planning purposes, including identification of a Public Policy Transmission Need (PPTN) for Western NY. The PSC confirmed Western NY PPTN on October 13, 2016, and the NYISO is proceeding with Phase II of the PPTPP.**
- ◆ **On December 17, 2015, the PSC issued an order addressing Public Policy Requirements and identifying the AC Transmission Public Policy Transmission Need (PPTN). The NYISO filed its Phase I Report on October 28, 2016, for the PSC to confirm whether the NYISO should proceed to Phase II.**

Western NY PPTN

- ◆ **PSC Order -- NYISO should consider projects that increase Western NY transmission capability sufficient to:**
 - *Obtain the full output from Niagara (2,700 MW including Lewiston Pumped Storage);*
 - *Maintain certain levels of simultaneous imports from Ontario across the Niagara tie lines (i.e., maximize Ontario imports under normal operating conditions and at least 1,000 MW under emergency operating conditions);*
 - *Maximize transfers out of Zone A to the rest of the state;*
 - *Prevent transmission security violations (thermal, voltage or stability) that would result under normal and emergency operating conditions; and*
 - *Maintain reliability of the transmission system with fossil-fueled generation in Western NY out-of-service, as well as in-service.*

Western NY

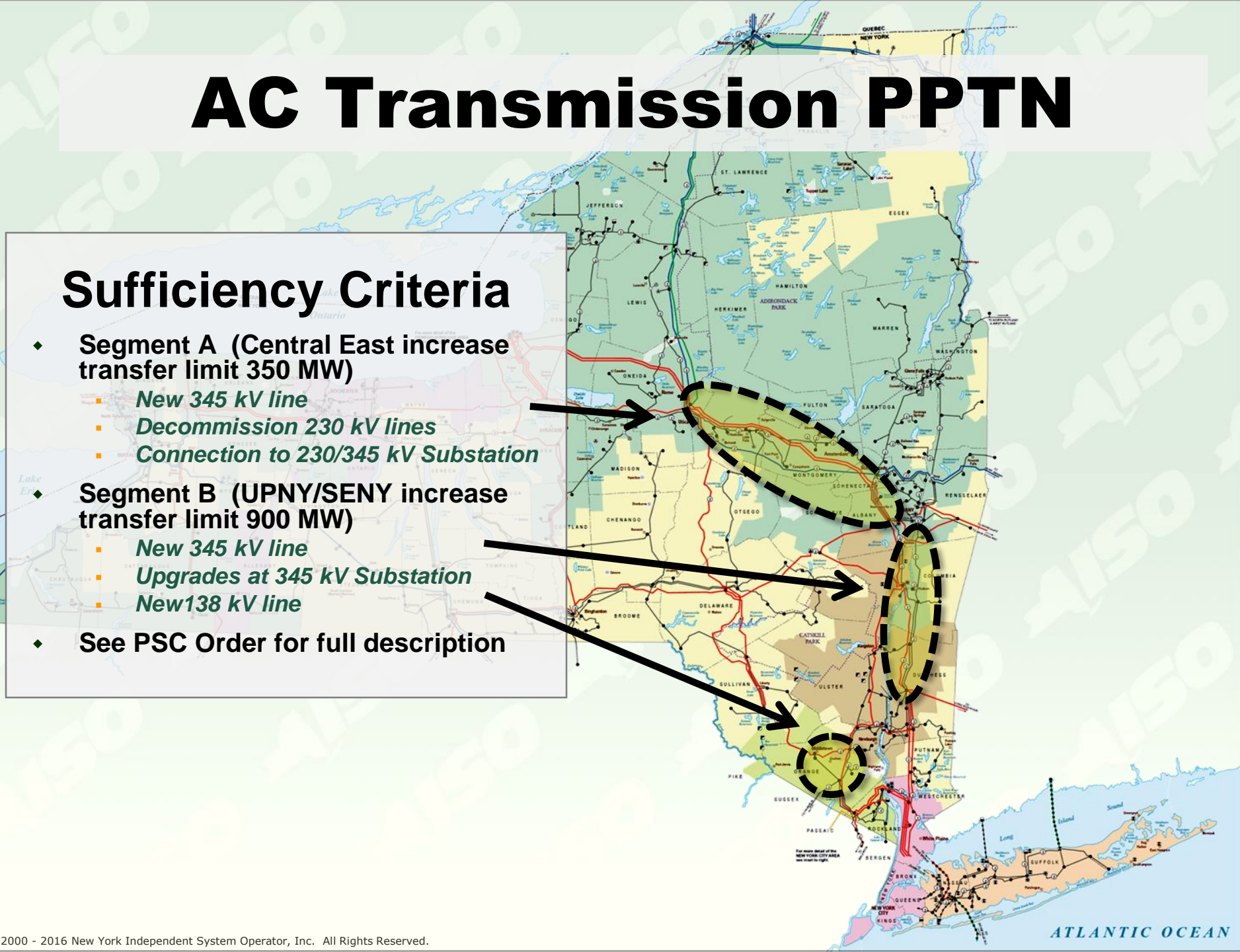
- ◆ Existing transmission constraints affect Niagara generation and Ontario Imports
- ◆ These transmission constraints are greater if Dunkirk and Huntley fossil-fuel units are shut down



AC Transmission PPTN

Sufficiency Criteria

- ◆ **Segment A (Central East increase transfer limit 350 MW)**
 - *New 345 kV line*
 - *Decommission 230 kV lines*
 - *Connection to 230/345 kV Substation*
- ◆ **Segment B (UPNY/SENY increase transfer limit 900 MW)**
 - *New 345 kV line*
 - *Upgrades at 345 kV Substation*
 - *New 138 kV line*
- ◆ **See PSC Order for full description**



The mission of the New York Independent System Operator, in collaboration with its stakeholders, is to serve the public interest and provide benefit to consumers by:

- *Maintaining and enhancing regional reliability*
- *Operating open, fair and competitive wholesale electricity markets*
- *Planning the power system for the future*
- *Providing factual information to policy makers, stakeholders and investors in the power system*

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