

Regional Planning Needs and Solutions

IPSAC WebEx



Brent Oberlin

DIRECTOR, TRANSMISSION PLANNING



Purpose:

This presentation provides an update on ISO New England's (ISO-NE) transmission planning evaluations of the New England system

- Access to Planning Advisory Committee (PAC) materials containing Critical Energy Infrastructure Information (CEII) is required to access some of the ISO's materials on transmission planning. Those stakeholders with CEII access do not require any further action. If you do not have access to ISO's PAC CEII information, please complete the PAC Access Request Form found at:

https://www.iso-ne.com/static-assets/documents/2015/08/external_pac_ceii_request.pdf

- Completed forms should be mailed to ISO New England Inc., Attention: Customer Support, One Sullivan Road, Holyoke, MA 01040-2841 or emailed (PDF) to: custserv@iso-ne.com
- ***Note: If you have Reliability Committee (RC) CEII access, you still need to apply for PAC CEII access***
- Should you have further questions, kindly contact the ISO Customer Service Department at (413) 540-4220
- The ISO-NE planning process was previously discussed with the IPSAC and a summary appears in the Appendix for stakeholder reference

Summary of Tariff Changes Since the December 2019 Update

- The ISO filed a number of Tariff changes with FERC to enhance the competitive transmission solicitation process on [October 11, 2019](#) these changes included:
 - Creation of a new agreement between the Selected Qualified Transmission Project Sponsor and the ISO, called the Selected Qualified Transmission Project Sponsor Agreement (SQTPSA)
 - Improvements to Attachment K to the Open Access Transmission Tariff
 - Modifications to Schedule 12C to establish a new baseline for consideration of Localized Costs
 - Creation of new Tariff Section III.12.6.4 where the in-service date in the SQTPSA will be the in-service date utilized for a competitively developed transmission project in the FCM model
- FERC approved the changes on December 10, 2019



Updating Area Study Plans

- Boston
 - Driven by the upcoming retirement of the Mystic generators, a number of transmission planning studies have been completed
 - The ISO has completed a Needs Assessment Addendum to specify the design requirements for addressing the system restoration concerns
 - The ISO has completed a Needs Assessment Update which has incorporated the solution to the time-sensitive needs and updated resource assumptions to the latest available data
 - Non-time sensitive needs remain – overload of three 345 kV cables and one 115 kV overhead line
 - The ISO issued an Request for Proposal (RFP) to address the identified, non-time sensitive needs on December 20, 2019
 - Phase One Proposals were due on March 4, 2020
 - 36 Phase One Proposals were submitted and are currently under review
 - List of qualifying Phase One Proposals is due August 26, 2020
 - The ISO will publish this information as soon as possible and will not wait until the due date

Updating Area Study Plans

- Maine
 - The Maine study area has been split into Upper and Lower Maine
 - Allows for the handling of the proposed HVDC facility, the New England Clean Energy Connect (NECEC), which will have an impact on Lower Maine
 - The Needs Assessment for Upper Maine was completed on March 23, 2020
 - Solutions are under development
- New Hampshire
 - The Needs Assessment was completed on December 4, 2019
 - Solutions are under development
- Western and Central MA
 - The draft Needs Assessment was posted for stakeholder review April 16, 2020
 - Very few issues were identified
 - Solution development is being placed on hold
 - Significant asset condition issues in the area need to be addressed
 - Significant proposed resource development in the area of identified needs may yield system upgrades and reconfigurations

Updating Area Study Plans

- Eastern CT
 - The Needs Assessment was completed on November 25, 2019
 - Solutions are under development
 - Expect to discuss the preliminary preferred solution at the May 20, 2020 PAC meeting
- Southwest CT
 - Solution development is on hold awaiting the details on the solution to the Glenbrook STATCOM asset condition issues
- Southeastern MA/RI
 - Due to the significant changes in net load forecast in the area, previously determined solution components are being revisited to verify their continued need
 - The first discussion on this topic occurred at the April 23, 2020 PAC meeting
 - Further discussions are expected at the May or June 2020 PAC meeting

Recent Information for Ongoing Reliability Based Studies, cont.

- [Boston](#)
 - [Boston 2028 RFP Posting of Phase One Proposals Memo](#), memo posted March 19, 2020
 - [Boston 2028 RFP Regarding the Change in Mystic Generating Station Retirement Date](#), memo posted January 13, 2020
 - [Boston 2028 RFP Announcement](#), posted December 20, 2019
 - [Boston 2028 RFP Documents](#), posted December 20, 2019
 - [Boston 2028 Needs Assessment Addendum](#), report posted October 17, 2019
 - [Boston 2028 Needs Assessment Update](#), report posted October 17, 2019

Recent Information for Ongoing Reliability Based Studies

- [Maine](#)
 - [Final Upper Maine \(ME\) Needs Assessment](#), report posted March 23, 2020
- [New Hampshire](#)
 - [Final New Hampshire \(NH\) 2029 Needs Assessment](#), report posted December 4, 2019
- [Western and Central Massachusetts](#)
 - [Draft Western and Central Massachusetts Area 2029 Needs Assessment](#), report posted April 16, 2020

Recent Information for Ongoing Reliability Based Studies

- [Eastern Connecticut](#)
 - [Final Eastern Connecticut \(ECT\) 2029 Needs Assessment](#), report posted November 25, 2019
- [Southeastern MA/RI](#)
 - [SEMA/RI 2029 Needs Assessment Update](#), presentation posted April 20, 2020

Market Efficiency Transmission Upgrades

- There have been no changes since the December 2019 IPSAC meeting



Public Policy Based Transmission

- Public Policy Transmission Upgrades (PPTUs) are upgrades designed primarily to meet local (e.g., municipal and county), state and federal Public Policy Requirements identified as driving transmission needs relating to the New England Transmission System
- The Public Policy process was [initiated in January 14, 2020](#)
- The ISO discussed the process with the [PAC on January 23, 2020](#)
- Two submittals were made
 - [Combined document containing both submittals](#)
 - [Combined templates for both submittals](#)
- New England States Committee on Electricity (NESCOE) has the option to provide a communication regarding those submittals by May 1, 2020
- As necessary, the ISO will provide a study scope by September 1, 2020

Regional System Plan Project List and Asset Condition List Update

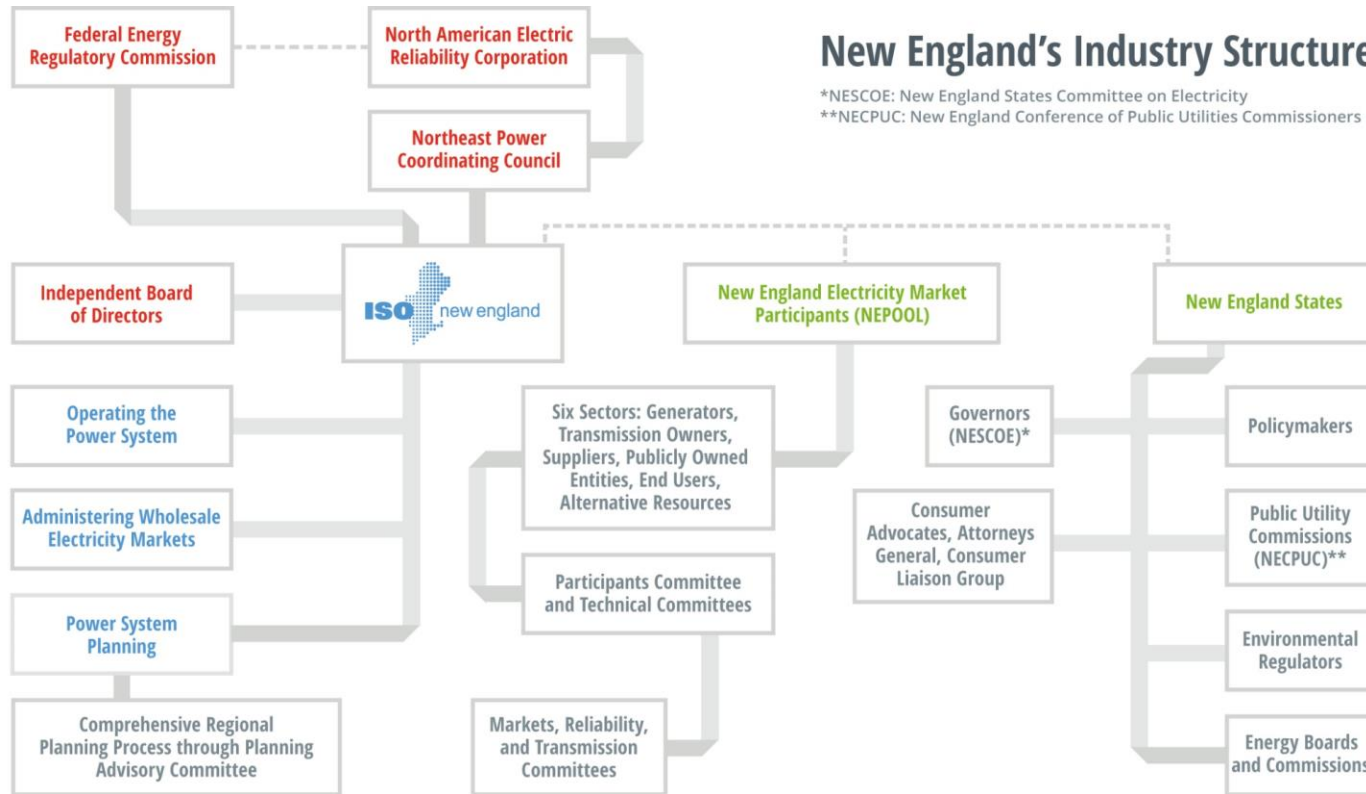
- March 2020
 - Updates to the Regional System Plan (RSP) Project List
 - Increases in cost estimates for both Boston and SEMA/RI
 - Boston - cost increase of \$52.3M
 - SEMA/RI – cost increase of \$62.1M
 - Two new projects added to address time-sensitive needs in Boston
 - Seven projects were placed in service
 - Updates to the Asset Condition List
 - 34 new projects added
 - 25 projects placed in service
 - Final RSP Project List and Asset Condition List update
 - [Final PAC presentation](#)
 - [Final Project List](#)
 - [Final Asset Condition List](#)
- Next update is scheduled to be provided to PAC in June 2020

Questions



APPENDIX

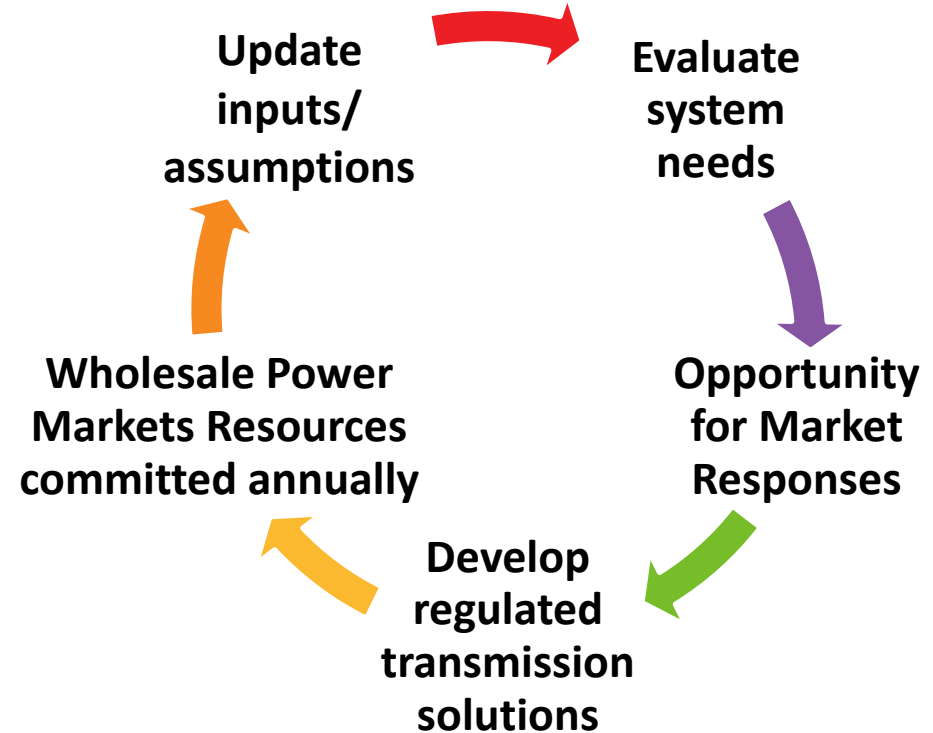
Numerous Entities Including an Independent Board Provide Oversight of and Input on ISO's Responsibilities



New England's System Planning Process

Continuous, Adaptive and Successful

- Open and transparent 10-year planning horizon reflects:
 - Update inputs/assumptions
 - Evaluate system needs
 - Market responses
 - Timing of future resource needs
- Provide information to marketplace and stakeholders
- Coordinate with neighboring areas



Reliability Planning Process

- Needs Assessments evaluate the adequacy of the transmission system over a 10-year planning horizon
 - Incorporate resources (generation and demand response) that have a firm commitment to perform, typically receiving an obligation through the Forward Capacity Market
 - Incorporate energy efficiency and photovoltaic forecasts
- ISO New England utilizes a continuous planning process
 - No fixed schedule
 - Allows for the incorporation of assumption changes “on-the-fly” rather than waiting for the next cycle
 - Ensures that solutions are not under or over-built
- Solutions Development
 - Identification of needs to be addressed through the Solutions Study process or the Open Competitive Process (as per Attachment K)
 - If the requirements of Attachment K Section 4.1(j), including a year of need 3 years or less from the completion of the needs assessment, have been met then the Solutions Study process is used for solution development
 - If the year of need is greater than 3 years from the completion of the Needs Assessment, the competitive process is used for solution development

Public Policy Process

- At least every 3 years, the ISO issues a Public Notice indicating input on state and federal Public Policy Requirements (PPR) can be submitted to the New England States Committee on Electricity (NESCOE) and local (e.g. municipal and county) PPRs can be submitted to the ISO
- NESCOE may provide a communication to the ISO regarding Public Policy Requirements
- Specification of the federal, state and local PPRs, if any, that will be addressed in a Public Policy Transmission Study (PPTS). Federal and state PPRs will be specified by NESCOE and, if required, by ISO. Local PPRs will be specified by ISO
- ISO performance of an initial phase of the PPTS and, if determined by ISO, a follow-on phase of the PPTS with opportunity for PAC to comment
- If a Public Policy Transmission Upgrade will be pursued, the solution will be developed through the Open Competitive Process

Helpful References

- The Transmission Planning Process guide outlines the steps in the regional transmission planning process (<https://www.iso-ne.com/system-planning/transmission-planning/transmission-planning-guides/>)
- The Transmission Planning Technical Guide documents several of the assumptions used in transmission planning studies (<https://www.iso-ne.com/system-planning/transmission-planning/transmission-planning-guides/>)
- Attachment K to the ISO New England Open Access Transmission Tariff describes the Regional System Planning Process (www.iso-ne.com/oatt)