Regional Planning Needs and Solutions

IPSAC WebEx

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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:


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

New England’s Industry Structure

*NEESCO: New England States Committee on Electricity
**NECPUC: New England Conference of Public Utilities Commissioners
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
Ongoing Reliability Based Studies

- Southwest Connecticut ([https://www.iso-ne.com/system-planning/key-study-areas/swct](https://www.iso-ne.com/system-planning/key-study-areas/swct))
  - The solutions to the area’s needs were identified on July 15, 2014. Significant additional generation in the area, Towantic, Bridgeport 5, and Wallingford 6 and 7, have prompted a restudy to determine if all of the identified upgrades continue to be needed.
  - Final scope of work: [https://smd.iso-ne.com/operations-services/ceii/pac/2016/05/swct_2025_needs_assessment_scope_op_work_final.pdf](https://smd.iso-ne.com/operations-services/ceii/pac/2016/05/swct_2025_needs_assessment_scope_op_work_final.pdf)
  - Planning Advisory Committee (PAC) scope of work presentation: [http://www.iso-ne.com/static-assets/documents/2015/12/swct_2025_needs_reassessment.PDF](http://www.iso-ne.com/static-assets/documents/2015/12/swct_2025_needs_reassessment.PDF)
Ongoing Reliability Based Studies

- Southeastern Massachusetts/Rhode Island (https://www.iso-ne.com/system-planning/key-study-areas/sema-ri)
  - Studies have identified significant needs in the area. The needs are exacerbated with the upcoming retirement of Brayton Point and Pilgrim generation
  - PAC Needs Assessment presentation, Rev. 2: https://smd.iso-ne.com/operations-services/ceii/pac/2016/05/final_sema_ri_2026_needs_assessment_presentation_rev2.pdf
Ongoing Reliability Based Studies

- Maine (https://www.iso-ne.com/system-planning/key-study-areas/maine)
  - Update of analysis of Maine to address recent paper mill closures, corrections to redispatch assumptions, modeling updates for autotransformers, use of the Bulk Electric System bright line and additional contingencies resulting from changes to NPCC Directory 1, Design and Operation of the Bulk Power System
Ongoing Reliability Based Studies

- Eastern Connecticut (https://www.iso-ne.com/system-planning/key-study-areas/eastern-connecticut)
  - Studies have identified a number of needs in the area
**Ongoing Reliability Based Studies**

- New Hampshire ([https://www.iso-ne.com/system-planning/key-study-areas/vt-nh](https://www.iso-ne.com/system-planning/key-study-areas/vt-nh))
  - Expansion of the Bulk Electric System has resulted in needs to be addressed in New Hampshire
  - Final Solutions Study Scope: [https://smd.iso-ne.com/operations-services/ceii/pac/2016/06/final_2023_new_hampshire_transmission_system_solutions_study_scope.pdf](https://smd.iso-ne.com/operations-services/ceii/pac/2016/06/final_2023_new_hampshire_transmission_system_solutions_study_scope.pdf)
Regional System Plan Project List Update

- October 2016 Final Regional System Plan (RSP) Project List update
Market Efficiency Transmission Upgrade Process

• Market Efficiency Transmission Upgrades (METUs) are upgrades designed primarily to provide a net reduction in total production cost to supply the system load
  – These upgrades are identified by ISO New England where the reduction in cost to supply system load exceeds the cost of the transmission upgrade

• Unlike reliability based upgrades, METUs are always developed through the competitive solution development process
Market Efficiency Transmission Upgrades

- As a result of the 2015 Economic Study of Keene Road, ISO-NE has initiated the METU process
Public Policy Transmission Upgrades

• 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

• ISO New England will be initiating the process in January of 2017
Questions