Minutes of the
Planning Advisory Committee (PAC)
Wednesday, August 20, 2025

Name	Affiliation
S. Abhyankar	ISO New England (Chair)
J. Macura	ISO New England (Secretary)
A. Ahmed	ISO New England
Z. Ahmed	ISO New England
M. Ainspan	NRG Curtailment Solutions, Inc.
S. Allen	Eversource Energy Service Company
M. Allen	Vermont Electric Power Company (VELCO)
M. Babula	ISO New England
A. Benedict	ISO New England
C. Benker	Eversource Energy Service Company
D. Bergeron	Maine Public Utilities Commission
P. Bernard	ISO New England
C. Bilcheck	CTC Global
B. Blair	New Hampshire Dept. of Energy
J. Bonenfant	Avangrid (Central Maine Power/United Illuminating)
D. Bradt	Oxford Power, consulting for NESCOE
C. Burke	Eversource Energy Service Company
J. Campana	Eversource Energy Service Company
D. Cavanaugh	Energy New England
S. Chamberlin	Maine Public Advocate Office
L. Cioffi	Rhode Island Energy (Narragansett Electric Co.)
M. Coleman	Canal Marketing LLC
R. Collins	ISO New England
D. Conroy	RLC Engineering, Inc.
P. Das	ISO New England
L. DeFlumeri	New England Power Company
J. Donovan	Massachusetts Attorney General's Office
M. Doolin	ISO New England
M. Drzewianowski	ISO New England
L. Durkin	ISO New England
M. Ellis	ISO New England
F. Ettori	Vermont Electric Power Company (VELCO)
J. Fenn	FENNCO, LLC

B. Forshaw	Energy Market Advisors
M. Fossum	New Hampshire Office of Consumer Advocate
B. Fowler	Sigma Power Consult
J. Fowler	Avangrid (Central Maine Power/United Illuminating)
P. Fuller	Autum Lane Energy Consulting, LLC
N. Gangi	ISO New England
A. Gillespie	Calpine Energy Services, LP
D. Green	RLC Engineering
R. Guay	Maine Public Utilities Commission
J. Halpin	Eversource Energy
R. Harvey	IEEE
M. Haskell	Maine Public Utilities Commission
A. Hastings	Eversource Energy
C. Heilferty	ISO New England
N. Hutchings	NextEra
J. Iafrati	Customized Energy Solutions
S. Ingalls	Unaffiliated
E. Jacobi	Federal Energy Regulatory Commission
B. Jagolinzer	Vermont Public Utilities Commission
J. Kasow	ISO New England
S. Keane	NESCOE
M. Kern	Rhode Island Energy (Narragansett Electric Co.)
A. Kleeman	ISO New England
R. Kornitsky	ISO New England
T. Kraklio	Rhode Island Energy (Narragansett Electric Co.)
N. Krakoff	Conservation Law Foundation
M. Krolewski	Vermont Public Utility Commission
F. Kugell	Avangrid (Central Maine Power/United Illuminating)
E. Kuligowski	ISO New England
R. Lafayette	Rhode Island Energy (Narragansett Electric Co.)
D. LaForest	ISO New England
K. Lagunilla	Rhode Island Energy (Narragansett Electric Co.)
C. Lambrinos	New England Power Company
S. Lamotte	ISO New England
J. Lamson	RTO Insider
J. Lee	Conservation Law Foundation
C. Lockwood	Viridon New England LLC
L. Looman	Vermont Electric Power Company (VELCO)
P. Lopes	Massachusetts Department of Energy Resources
T. Lundin	LS Power Grid Northeast, LLC
T. Martin	New England Power Company
M. Matar	ISO New England
A. McBride	ISO New England

P. Melzen	Eversource Energy Service Company
J. Miller	Clearway Energy
L. Mott	Grid United
R. Mozumder	ISO New England
E. Ninestein	ISO New England
B. Oberlin	ISO New England
R. Panos	New England Power Company
H. Pathan	Eversource Energy Service Company
D. Patnaude	ISO New England
M. Perben	ISO New England
D. Phelan	New Hampshire Public Utilities Commission
K. Quach	ISO New England
J. Rauch	Avangrid (Central Maine Power/United Illuminating)
C. Reed	ISO New England
M. Ribeiro Dahan	ISO New England
C. Richards Jr.	Rhode Island Energy (Narragansett Electric Co.)
B. Robertson	Eversource Energy Service Company
E. Ross	ISO New England
J. Rotger	Customized Energy Solutions (CES)
E. Runge	Day Pitney
K. Schlichting	ISO New England
D. Schwarting	ISO New England
A. Schutzman	Rhode Island Energy (Narragansett Electric Co.)
K. Slonski	Eversource Energy Service Company
B. Snook	Maine Governor's Energy Office
C. Soderman	Eversource Energy Service Company
R. Somayajulu	New England Power Company
M. Spector	Eversource Energy Service Company
J. St. Pierre	Avangrid (Central Maine Power/United Illuminating)
M. Stevens	Rhode Island Energy (Narragansett Electric Co.)
H. Sulemanji	New York Power Authority
B. Thomson	Rhode Island Energy (Narragansett Electric Co.)
J. Truswell	ISO New England
P. Turner	Conservation Law Foundation
J. Vaile	Eversource Energy Service Company
M. Valencia Perez	ISO New England
S. Walcott	Eversource Energy Service Company
G. Wegh	Eversource Energy Service Company
B. Wilson	ISO New England
M. Winne	ISO New England
S. Yasutake	Gabel Associates
B. Yuditskiy	Rhode Island Energy (Narragansett Electric Co.)
J. Zhang	ISO New England

L. Zhang	Calpine Energy Services, LP
H. Zheng	New Hampshire Transmission, LLC

Item 1.0 – Chairs Remarks

Mr. Shounak Abhyankar (ISO-NE) welcomed PAC and noted a few committee updates.

First, Mr. Abhyankar highlighted the ISO's memo update on the Third Maine Resource Integration Study (MRIS) issued on August 11, 2025. The memo explains that the completion of the 3rd MRIS should await the outcome of the Longer-Term Transmission Planning (LTTP) request for proposal (RFP) before being finalized. The memo also states that the ISO anticipates completing the 3rd MRIS in the second half of 2026, which can allow for coordination of entry of eligible Interconnection Requests into the first regular Order No. 2023 cluster. For additional details, the full memo is available for review on the PAC website. He concluded that stakeholders may submit any feedback to PAC Matters.

Next, Mr. Steven Allen (Eversource Energy) announced that the New England Transmission Owner's (NETOs) August 2025 Transmission Owner Asset Condition Project Forecast and an accompanying memo were posted to the PAC and Transmission Owner Asset Management websites.

Item 2.0 – Transmission Owner Asset Management

Item 2.1 – 1759 Asset Condition Structure Replacement & Copperweld Retirement Project

Mr. Chris Soderman (Eversource Energy) presented the Line 1759 asset condition structure replacement and Copperweld retirement project. The line stretches 9.1 miles from Portland Substation to Hopewell Substation in Connecticut. Eversource's recent inspections identified structural concerns and aging Copperweld shield wire that is susceptible to failure. Eversource's preferred solution replaces 17 structures (12 Category C and 5 Category B structures), adds cross-bracing for 29 overstressed structures, and replaces Copperweld shield wire with two runs of OPGW (18.2 miles total). The project's estimated cost is $18.211 M (-25%, +50%). Eversource anticipates the start of major construction in Q4 2025, with an in-service date in Q2 2026.

In response to questions, Eversource Energy issued the following statements:

- The deadline to submit feedback on the presentation is September 4, 2025.
- Due to the random nature of decay, some of the single-circuit H-frame wood structures on this line that are 9 years old require replacement.
- The structure warranties typically expire within 5 years of installation. Likely, natural wood structures will have a shorter warranty window than engineered structures.

- From 2020 to 2023, Eversource determined that the reinforcement of roughly 4-year-old structures was necessary due to their level of deterioration. Eversource noted that these structures would be overstressed and require bracing, regardless of any OPGW installation.
- Over time, stranding can occur due to aeolian vibrations caused by wind. This can often lead to shieldwire failure even with mitigation efforts.
- Eversource has transitioned its company standard from Copperweld shieldwire to OPGW.
- The 2015 asset condition project replaced structures based on the line's original drawings from1950. As such, Eversource feels the current asset condition project offers a low-cost opportunity to bring the line up to current standards.
- Eversource typically conducts drone inspections to assess asset condition because they are fast and low cost.
- Eversource does not plan on conducting forensic analysis on the young wood structures replaced.

Item 2.2 – Scobie Pond 345 kV Trench Replacement & Control House Expansion Project

Ms. Carol Burke (Eversource Energy) provided a cost update on the Scobie Pond 345 kV trench replacement and control house expansion project. Since 2022, the project's estimated PTF costs have increased $15.448M from $19.652M to $35.1M. Eversource explained that certain challenges drove the project's increased cost, which included outage constraints, inaccurate cost estimates, constructability review, and the procurement of construction materials. The start of major construction began in Q3 2022 and the project is anticipated to be in-service by Q1 2026.

In response to questions, Eversource Energy issued the following statements:

- The replacement of the secondary trench is the primary project driver. When initially assessing project alternatives, Eversource concluded that the trench's damage was too significant for repair.
- The original cost estimate had built-in contingency that was not adequate to offset all the unforeseeable challenges that would arise.
- The project's updated cost includes the original contingency costs.
- In response to questions regarding the project's timeline, Eversource confirmed it has followed the Transmission Cost Allocation (TCA) process and obtained a determination letter. In addition, Eversource will submit a TCA revision in accordance with PP4 (for review at the Reliability Committee) given the significance of the cost increases.

Item 2.3 – S-171, S-171S, & T-172S 115 kV Structure Replacements & Lightning Mitigation Project

Ms. Kyra Lagunilla (Rhode Island Energy) presented the S-171, S-171S, & T-172S structure replacements and lightning mitigation project. The project spans roughly 26 miles from Hartford Avenue to Drumrock in Rhode Island. The preferred solution replaces four wood H-frames and twelve 3-pole wood structures with steel monopoles, as well as installs 10.3 miles of OPGW. The project's estimated cost is $15.2 M (+200% / -50%). The start of major construction is anticipated for Q4 2025, with an in-service date of Q4 2026.

In response to a question, Rhode Island Energy (RIE) issued the following statement:

- RIE is transitioning to the use of steel structure replacements due to wood's unpredictable degradation.
- Currently, the lines do not have adequate lightening protection.
- To date, RIE has documented 9 lightning related incidents on the line. The presentation highlights a recent outage event, which lasted for roughly 5 minutes and affected a large portion of its customer base.
- The line's recent performance is RIE's major concern.

Item 3.0 – Proposed Updates to TPTG Table 2-4: Load Power Factor (LPF) to MVAR Exchange

Ms. Jinlin Zhang and Mr. Marvin Valencia Perez (ISO-NE) reviewed the proposed updates to the Transmission Planning Technical Guide (TPTG) Table 2-4. The ISO proposed revisions to system planning load power factor (LPF) design standards to provide maximum MVAR injection and absorption limits, aligning transmission planning with upcoming changes to Operating Procedure 17.

In response to questions, the ISO issued the following statement:

- The ISO explained that distributed generation (DG) can provide voltage control on distribution systems, however, most distribution companies in New England prohibit DG from controlling voltage and the ISO has no authority to require this.
- The ISO reiterated that the TPTG updates aim to align transmission planning with operations and set standards that require load-serving entities to regulate their impact on transmission voltage while still specifying transmission upgrades to solve voltage problems relevant to the transmission system.
- Over recent years, the ISO has been observing more leading LPF values which contribute to light load high voltage problems.
- In recent years, the most severe minimum loads have shifted from nighttime to daytime and are lower due to DER.

The following comments were issued:

- A stakeholder suggested that the ISO consider requiring the enablement of voltage regulation on distributed generation (DG) as an easy solution to achieve power factor correction since inverter-based resources are essentially STATCOMS that can control voltage regardless of generation output.
- A stakeholder voiced support for the efforts for transmission solving transmission problems and felt that setting distributed energy resources (DER) to unity power factor neither improves nor harms the system.
- On slide 10, the ISO noted that without power factor standards, the cost of mitigating one transmission owner's failure to control power factor would be spread across all New England ratepayers. A stakeholder suggested the term "transmission owner" was misapplied, and "load serving entity" would be more appropriate.

Item 4.0 – 2025 Regional System Plan (RSP)

Mr. Al McBride (ISO-NE) reviewed the scope of work and design for the draft 2025 Regional System Plan (RSP) and reviewed the process to submit public feedback.

In response to a question, the ISO issued the following statement:

- Stakeholders could submit a topic they feel was inadvertently omitted for the RSP discussion via the comment form. The ISO will review any submissions and provide a written response.

Item 5.0 – DER Model Parameters & Fault Impedance Methodology

Mr. Zeeshan Ahmed (ISO-NE) reviewed updates to the ISO's distributed energy resource (DER) modeling assumptions and the fault impedance methodology used in studies for transmission planning.

In response to questions, the ISO issued the following statements:

- The recommended DER model parameters and fault impedance calculation methodology updates will be implemented into the System Impact Studies (SISs) for Proposed Plan Applications (PPA) and generator interconnection Cluster Studies after the 2035 New England Daytime Minimum Load Needs Assessment (NA), and subsequent solutions development, has been completed. As such, these modeling changes will be applied to the first regular cluster study.
- The 2035 Daytime Minimum Load NA is set to initiate sometime later this year and, along with solutions development, will take roughly all of 2026 to complete.
- The ISO would need to conduct analysis to determine the amount of DER that is likely to trip due to transmission system contingencies. There is between 2,000 and 3,000 MW of legacy DER currently connected to the New England system.
- The objective of these updates is to conduct a better representation of DER modeling.

- Discussions pertaining to the amount of DER tripping due to transmission system contingencies fall outside of the scope of this presentation.

Item 6.0 – System Efficiency Needs Scenario (SENS) - Assumptions

As part of the 2024 Economic Study, Mr. Richard Kornitsky and Mr. Ben Wilson (ISO-NE) reviewed the assumptions for the System Efficiency Needs Scenario (SENS). The SENS identifies future transmission congestion on the New England Pool Transmission Facilities (PTF) and evaluates potential transmission solutions to minimize the identified congestion. The ISO will run a nodal production cost model on a 10-year horizon that models the 2035 system to identify and quantify the magnitude and duration of congestion. Any system efficiency production cost savings equal to or greater than $4.3 million/year will be identified as system efficiency needs.

In response to questions, the ISO issued the following statements:

- The load forecast was based on the 2025 CELT report.
- The ISO will report the expected magnitude of congestion for all identified elements but will only model generic upgrades for the top three congestion points.

Item 7.0 – Closing Remarks/Adjourn for the Day

Mr. Abhyankar announced the next PAC meeting is on Wednesday, September 17, 2025.

The meeting adjourned at 1:27 P.M.

Respectfully submitted,

_____/s/_____

Jillian Macura

Secretary, Planning Advisory Committee