

**MINUTES OF THE
PLANNING ADVISORY COMMITTEE (PAC)
MEETING HELD ON MARCH 20, 2024**

Attendee	Organization
J. Truswell (Chair)	ISO New England
J. Macura (Secretary)	ISO New England
S. Allen	Eversource Energy
B. Andrew	Eversource Energy
P. Asarese	ISO New England
K. Bane	ISO New England
D. Bergeron	ME PUC
P. Bernard	ISO New England
J. Brodbeck	EPDPR
J. Burlew	ISO New England
D. Burnham	Eversource Energy
C. Donohue	East Point Energy
J. Donovan	MA Attorney General's Office
M. Drzewianowski	ISO New England
C. Dzirko	Eversource Energy
L. Durkin	ISO New England
F. Etori	VELCO
J. Fenn	FENNCO LLC
B. Forshaw	Energy Market Advisors
B. Fowler	Wheelabrator North Andover Inc.; Exelon Generating Company LLC; Nautilus Power; Dynegy Power Marketing, LLC; Entergy Nuclear Power Marketing LLC; Great River Hydro, LLC
J. Fundling	Eversource
A. Gagnon	MA Attorney General's Office
S. Garwood	New Hampshire Transmission
R. Guay	Maine Public Utility Commission
J. Halpin	Eversource Energy
A. Hanenkratt	New England Power Company
R. Harvey	IEEE
M. Haskell	Maine Public Utility Commission
P. Holloway	MA DOER
H. Hunt	NESCOE
J. Iafrati	Customized Energy Solutions
S. Keane	NESCOE
N. Krakoff	Conservation Law Foundation
F. Kugell	Central Maine Power Company

R. Lafayette	Eversource Energy
K. Lagunilla	PPL
S. Lamotte	ISO New England
J. Lamson	RTO Insider
A. Lawton	Advanced Energy United
Z. Logan	Central Maine Power Company
J. Lucas	Eversource Energy
E. Mailhot	ISO New England
J. Martin	New England Power Company
T. Martin	New England Power Company
C. Mattioda	Synapse
A. Nichols	ISO New England
S. Nikolov	ISO New England
B. Oberlin	ISO New England
A. O'Connell	MA AG
K. Pastoriza	Member of the Public
D. Patnaude	Eversource Energy
E. Perez-Cervera	ISO New England
M. Pescatore	NH PUC
D. Phelan	NH PUC
J. Porter	Rhode Island Energy
H. Presume	VELCO
C. Richards Jr.	PPL
B. Robertson	Eversource Energy
J. Rotger	Customized Energy Solutions
E. Runge	Day Pitney
M. Safi	PPL
D. Schwarting	ISO New England
M. Scott	New England Power Company
A. Sewart	NextEra Energy
J. Slocum	MA Dept. Transportation
P. Sousa	South Coast Wind
T. Sweeney	NH Dept. of Energy
C. Szmodis	Rhode Island Energy
L. Szmot	Strata Clean Energy
J. Talbert-Slagle	CT OCC
Z. Teti	Avangrid
B. Thomson	Rhode Island Energy
A. Trotta	United Illuminating
G. Twigg	NECPUC
M. Valencia-Perez	ISO New England
J. Zhang	ISO New England

Item 1.0 – Chairs Remarks

Ms. Jody Truswell welcomed PAC and reviewed the day's agenda.

Item 2.0 – Maine 2028 Short Circuit Solutions Study **CEII**

Ms. Sarah Lamotte (ISO-NE) presented the Maine 2028 Short Circuit (SC) Solutions Study, summarizing that six Pool Transmission Facility (PTF) breakers were over 100% of their interrupting rating and are time-sensitive needs that have a need by date of June 1, 2026. The ISO did not consider any other solution alternatives because breaker replacement is the most cost effective approach to address these time sensitive needs. The estimated cost is \$5,501,609M (+50% /-25%) with an in-service date of October 2025.

ISO-NE issued the following statements in response to stakeholder questions:

- The 2028 New England SC Need Assessment (NA) identified three breakers over 100% of their interrupting rating. However, the Maine 2028 SC Needs Assessment Addendum Report identified three additional breakers over 100% of their interrupting rating, bringing the total to six time sensitive needs identified. The ISO attributes the identification of three additional breakers to data errors identified in October 2023. The ISO will provide information on the data errors offline.
- The ISO explained the breakers at this substation, added as part of MPRP, are overdutied due to a combination of factors. There has been an increase in the amount of generation in Maine, as well as, inverter based modeling improvements now provide greater accuracy.
- The ISO uses VCCS modeling for devices such as STATCOMS that are a source of short circuit current.

The following comments were issued:

- A stakeholder noted concern over the ISO's short circuit modeling results and its modeling of STATCOMS. This stakeholder felt escalating currents throughout Maine were due to the inclusion of devices that do not inject fault current.
- Avangrid confirmed it suffers from delayed project timelines due to supply chain issues. Avangrid explained their presentation misclassified the project's start date with its in-service date.

Item 3.0 – 2050 Transmission Study: Further Analysis to Address Comments on Study

Mr. Daniel Schwarting (ISO-NE) presented a plan for additional offshore wind analysis in response to stakeholder inquiries and feedback following the publication of the final 2050 Transmission Study Report. The presentation focused on two planned analyses: an evaluation of moving two of the 2050 Study's proposed offshore wind farm points of interconnection (POIs) from Maine to Massachusetts to mitigate North-South constraints, and offshore wind point of interconnection screenings to evaluate the electrical viability of various possible POIs. .

ISO-NE issued the following statements in response to stakeholder questions:

- Under the 2050 Study, the ISO originally assumed a project off the coast of Southeast Massachusetts (SEMA) connecting to Brighton, MA. In the proposed sensitivity with two wind farms relocated from Maine to Massachusetts, the ISO has shifted the POI for this wind farm from Brighton to Millstone, CT.
- The ISO explained that the POI screening looks at one of the many factors that go into POI selection. The ISO noted certain factors, such as environmental concerns or community impacts, fall outside of the ISO's expertise and the scope of this study.
- The ISO will provide cost comparisons for transmission upgrades needed in 2035, 2040, and 2050 between scenarios with offshore wind interconnected in Maine (original 2050 Study results) and coastal Massachusetts (results of this analysis) in an attempt to ballpark potential cost savings.
- The ISO plans to use 2033 snapshots to screen offshore wind POIs in the near-to medium-term. The 2033 system models provide more certain load and generation data than data looking out to 2050.

The following comments were issued:

- A stakeholder, while supportive, emphasized that POI selection can be political in nature, cautioning that certain states might be partial to a Maine selection or have concerns with relocating POIs elsewhere.
- A stakeholder noted the presentation did not clearly convey this sensitivity is only looking at a small fraction of the factors necessary for POI selection. This stakeholder was concerned that this limitation will get lost in the report that will come out.
- A stakeholder inquired whether certain interconnection assumptions were made in this sensitivity.
- A few stakeholders shared their support for the sensitivity, noting POI relocations could offer cost effective solutions and greatly benefit developers.

Item 4.0 – RSP Project List and Asset Condition List March 2024 Update

Ms. Eva Mailhot (ISO-NE) provided updates for the Regional System Plan (RSP) Project List, major transmission projects, and the Asset Condition list.

ISO-NE issued the following statements in response to stakeholder questions:

- The ISO will assess whether it is feasible to separate asset condition costs from the region's cumulative investment in reliability and asset condition projects through 2032.

Item 5.0 – Plan for Needs Assessments (NA) in 2024

Mr. Pradip Vijayan summarized ISO's plans for initiating NAs throughout 2024, as well as announced the ISO's proposal to eliminate the Scope of Work (SOW) document to gain efficiencies.

The following comments were issued:

- A stakeholder requested the ISO include a linked index in its scope presentations.
- A stakeholder felt the ISO's presentations at PAC should include local data (*i.e.*, winter peaking, solar/heat penetration, etc.).

Item 6.0 – 2024 Economic Study – Benchmark Assumptions and Stakeholder-Requested Scenario Proposals

Mr. Richard Kornitsky (ISO-NE) provided an overview of the 2024 Economic Study process. This included an update on the Economic Studies Technical Guide, submitting a Stakeholder-Requested Scenario, and the Benchmark Scenario assumptions.

ISO-NE issued the following statements in response to stakeholder questions:

- The ISO confirmed sensitivities in the Stakeholder-Requested Scenario will not be evaluated as Market Efficiency Need pursuant to the factors and metrics outlined in Attachment N.
- The Benchmark Scenario will include input assumptions that were on the market in 2023. As such, iron-air batteries would be excluded. However, iron-air batteries could be incorporated in the Policy Scenario or a Stakeholder Requested Scenario.
- The ISO will provide additional insight on the Benchmark Scenario's assumptions for zonal load profiles and the RSP's nodal network.

Item 7.0 – Economic Planning for the Clean Energy Transition (EPCET) – Additional Sensitivities

Mr. Ben Wilson (ISO-NE) presented additional information on the binding condition coincidences for different interfaces, as well as New Brunswick's (NB) historical flows and NB's Market Efficiency Needs analysis.

ISO-NE issued the following statements in response to stakeholder questions:

- The NB flows may have a correlation with the curtailments in New England. NB flows have a decreasing trend over the past few years.
- The interchange between NB and New England is based off the economics of ISO-NE's system, as well as NE and the Maritimes. These systems are subject to the current market forces at that time.
- The ISO will review whether the changes to the 2019 do-not exceed limit (DNE) were reflected in the frequency of curtailments depicted in the graph covering Orrington South's monthly curtailments from 2018 to 2023.
- The NB analysis depicts two graphs outlining the "first pass" and "second pass." The "first pass" is the diurnal flow case, where the blue line depicts NB generation, the gray line is the NB-NE location marginal price (LMP), and the orange line is NB curtailment. The "second pass" utilizes the post curtailment flows (blue line) and the LMP on the NB-NE border nodes (grey line) as the new generation profile and cost of NB energy. Essentially, the blue line from Pass 1 feeds into Pass 2.

- New England is not attempting to import energy during high renewable output when the first pass indicated a zero or negative LMP because NB would not have incentives to send energy to New England. NB imports in reality are not a zero cost resource to the New England region. Treating them as such with a diurnal flow method will likely over value the congestion costs on the system.
- The Two-Pass Methodology operates on a 10-year timeframe.
- EPCET's Market Efficiency Needs base case did not include NB import assumptions. The third row of the New England Product Cost chart shows the differences from the base. For example, under the Two-Pass Methodology, you would subtract \$8M (equivalent to the constrained minus the unconstrained) from the base, \$6M to arrive at \$0.5M in the bottom row. The ISO will review any rounding errors made in this chart.
- The Two-Pass Methodology was designed to deal with uncertainty.
- The Two-Pass Methodology uses an hourly dispatch with Real-Time conditions.

The following comments were issued:

- A few stakeholder noted the ISO should develop a methodology that focuses on simulating what is truly happening on the grid and avoid unlikely market behavior assumptions.

Item 8.0 – Closing Remarks/Adjourn for the Day

Ms. Truswell announced the next PAC meeting is on Thursday, April 18, 2024.

The meeting adjourned at 3:31 P.M.

Respectfully submitted,

_____/s/____

Jillian Macura

Secretary, Planning Advisory Committee