

**Planning Advisory Committee
WebEx Teleconference
April 14, 2021**

Attendee	Organization
J. Truswell - Chair	ISO New England Inc.
M. Lyons - Secretary	ISO New England Inc.
J. Adadjo	Eversource Energy
M. Ainspan	NRG
R. Albrick	National Diesel Bio Board
B. Anderson	NEPGA
R. Andrew	Eversource Energy
M. Babula	ISO New England Inc.
N. Baldenko	Eversource Energy
C. Belew	Massachusetts Attorney General Office
D. Bergeron	Maine Public Utilities Commission
P. Bernard	ISO New England Inc.
J. Black	ISO New England Inc.
P. Boughan	ISO New England Inc.
J. Breard	ISO New England Inc.
J. Brodbeck	Marble River
T. Brown	Eversource Energy
D. Burnham	Eversource Energy
E. Camp	Synapse Energy Economics Inc.
D. Capra	NESCOE
D. Cavanaugh	Energy New England
B. Chamberlain	Olivewood Energy

S. Conant	RLC Engineering
D. Conroy	RLC Engineering
T. Costa	ISO New England Inc.
W. Coste	ISO New England Inc.
F. Dallorto	ISO New England Inc.
C. Didomenico	New Hampshire Transmission
J. DiLuca	Eversource Energy
J. Dong	Eversource Energy
D. Donovan	Seadvantage
M. Drzewianowski	ISO New England Inc.
F. Etti	VELCO
J. Fenn	Versant Power
K. Flynn	ISO New England Inc.
B. Forshaw	CMEEC
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
M. Gardner	NextEra Energy
S. Garwood	New Hampshire Transmission
J. Gordon	CPV Towantic
P. Holloway	Massachusetts Department of Public Utilities
N. Hutchings	ISO New England Inc.
J. Iafrati	Customized Energy Solutions
S. Judd	ISO New England Inc.
S. Kaminski	New Hampshire Electric CoOp
S. Kaplan	Marble River

S. Keane	Massachusetts Department of Public Utilities
T. Kiley	Northeast Gas Association
T. Kaslow	First Light Power Resources
S. Kirk	Exelon Generation Company
A. Kniska	ISO New England Inc.
M. Kotha	ISO New England Inc.
R. Kowalski	ISO New England Inc.
A. Krich	Boreas Renewables
B. Kruse	Calpine
K. Kumar	ISO New England Inc.
S. Lamotte	ISO New England Inc.
S. Leahy	Northeast Gas Association
E. Mailhot	ISO New England Inc.
C. Malone	Avangrid
K. Mankouski	ISO New England Inc.
B. Marszalkowski	ISO New England Inc.
C. Marquis	Advanced Energy Economy
J. Marshall	NESCOE
J. Martin	New England Power Company
T. Martin	New England Power Company
A. McBride	ISO New England Inc.
G. McCluskey	New Hampshire Public Utilities Commission
B. McKinnon	Norwood Municipal, South Hadley Municipal
J. McLaughlin	Eversource Energy
A. Mitchell	New England Power Company

B. Oberlin	ISO New England Inc.
L. Ortiz	Anbaric Development Partners
T. Paradise	Anbaric Development Partners
M. Perben	New England Power Company
H. Presume	VELCO
F. Pullaro	RENEW
J. Roberts	ISO New England Inc.
V. Rojo	ISO New England Inc.
J. Rotger	Galt Power, Cross Sound Cable, BP Energy, Mercuria Energy and DTE Energy
C. Ruell	ISO New England Inc.
E. Runge	Day Pitney
M. Saravanan	ISO New England Inc.
S. Sarkar	New England Power Company
D. Schwarting	ISO New England Inc.
M. Scott	New England Power Company
C. Sedlacek	ISO New England Inc.
T. Shakespeare	Massachusetts Department of Public Utilities
P. Shattuck	Anbaric Development Partners
P. Silva	ISO New England Inc.
P. Sousa	Massachusetts Department of Public Utilities
M. Spencer	Jericho Power
R. Stein	Generation Group Member, NRG Power Marketing, HQ Energy Services, PSEG Energy Resources & Trade, SunEdison
B. Swalwell	Tangent Energy
B. Thomson	MMWEC

P. Turner	Conservation Law Foundation
R. Vega	ISO New England Inc.
J. Walkey	Green Roots
A. Weinstein	Vistra Corp.
L. Willick	NEEC
P. Wong	ISO New England Inc.
A. Worsley	Boreas Renewables
J. York	LS Power
J. Zhang	ISO New England Inc.
C. Zhu	New England Power Company

Item 1.0 – Chairs Remarks

Ms. Jody Truswell welcomed the committee and reviewed the days' agenda.

Mr. Steven Judd (ISO-NE) commented that the 2021 ISO-NE variable energy resource (VER) dataset has been posted to the PAC website and is available for download. In early 2021, DNV expanded the historical model data set in two more areas. They augmented the historical model observations from 2020 and then the entire 21-year dataset (2000-2020) was re-calibrated based on the additional year of observations. In addition, DNV modeled several new hypothetical onshore wind, offshore wind, and utility scale solar facilities for the 21-year period. Details of those facilities are documented in their technical specification that is included with the dataset. Please send any comments on the dataset to PACMatters@iso-ne.com.

Item 2.0 – Southern New Hampshire 2029 Preliminary Preferred Solution

Ms. Jinlin Zhang (ISO New England) reviewed the Southern New Hampshire 2029 Preliminary Preferred Solution.

In response to stakeholder questions, the following responses were provided:

- NHT stated that the substation will be located in an old parking lot near the existing substation to accommodate the two new 50 MVAR capacitors.
- The study assumptions just include those resources with capacity supply obligations or financially binding contracts. The Needs Assessment and Solutions Study did not look at the interconnection of possible offshore wind resources that do not have a valid contract or PPA. However, the increase in system strength provided by the proposed synchronous condensers may reduce the size of the upgrades required for the new inverter-based resources to interconnect.

Item 3.0 – Annual Northeast Gas Association (NGA) Presentation

Mr. Tom Kiley (NGA) provided his annual PAC update on natural gas developments within New England. Mr. Kiley first provided a national overview of last winter's (2020/2021) natural gas operations, pricing, storage use/inventory, and production/consumption. He also highlighted the impacts to the gas industry from the Covid pandemic. He then focus on regional infrastructure developments, which include some small pipeline expansion projects into, out of, and within New England. He briefly discussed Appalachian gas production, the status of recent conversions from oil (or other fuels) to natural gas within New England's residential sector, and highlighted the recent activities to "decarbonize" the gas networks. Mr. Kiley concluded his presentation by noting that he will soon be retiring from NGA and wanted to acknowledge the work of the Electric/Gas Operations Committee as well as thank both Senior and other staff at ISO-NE for their cooperation and support over the last 20 years.

In response to stakeholder questions, NGA provided the following responses:

- Regional gas LDC satellite LNG storage tanks are categorized as part of regional gas storage instead of LNG imports.
- In regards to the regional implications of a possible shutdown of the new Weymouth gas compressor station on the Algonquin Gas Transmission System (AGT), NGA stated that regional customer demand would still be satisfied, however, there would be an elevated risk that regional gas-fired generators could see gas supply curtailments.

Item 4.0 – SEMA/RI 2030 Minimum Load Needs Assessment Scope of Work

Mr. Kaushal Kumar (ISO New England) reviewed the SEMA/RI 2030 Minimum Load Needs Assessment Scope of Work.

In response to stakeholder questions, ISO stated the following:

- ISO turns off all the fast start generation in the area as part of the study.
- ISO will be using 7680 MWs as the minimum load level assumption based on the Transmission Planning Technical Guide. The ISO is currently conducting a Clean Energy Transition Pilot Study and is investigating the use of new assumptions for minimum load level analysis. The new assumptions will not be ready for use until late 2021 or early 2022. The SEMA/RI 2030 Minimum Load Needs Assessment are expected to be completed in Q3 2021.
- The upgrades discussed in the First Cape Cod Resource Integration Study (CCRIS) will not be included in the SEMA/RI 2030 Minimum Load Needs Assessment. Only transmission upgrades associated with the offshore wind projects which have a contract through a state sponsored RFP will be included. **Note** – It was mistakenly stated during the meeting that the CCRIS upgrades would be included in the study.
- The reactive devices that are associated with the offshore wind projects are considered available in the study.
- Batteries that cleared FCA 15 are included in the study but will be assumed offline based on the assumed timeframe of the study which is a springtime weekend night.

Item 5.0 – NESCOE Overlay Network Expansion (ONE) Transmission: Concept for Discussion

Mr. Jason Marshall (NESCOE) reviewed the ONE Transmission concept that combines the ISO's reliability planning process with consideration of public-policy driven transmission. This process must include various points in the PAC process where ISO solicits input from the states, stakeholders and the public. There should also be steps where ISO can choose not to pursue solutions or select projects in connection with public policy during regular check-in's with the states and stakeholders. This concept will provide greater visibility into possible cost-effective

investments to integrate clean power and to co-optimize infrastructure projects that promote reliability and public policy objectives. This will help multi-use transmission projects avoid separate siting proceedings for the same right-of-way or substation.

In response to stakeholder questions on the proposal, NESCOE stated:

- The driver of the concept is to be pro-active to see if adjustments are needed to be made to the public policy process. It does not mean the states want more control of the reliability process.
- As part of the Order 1000/RFP process, NESCOE proposes there be a public policy overlay on a ten-year outlook in conjunction with the project.
- NESCOE does not intend to change the RFP process, but wants to have the public policy process run in conjunction with the RFP process.
- NESCOE is hoping to receive any feedback on this presentation within the next month.

There were also a number of stake holder comments on the presentation:

- This proposal goes where FERC Order 1000 intended and it is appreciated that NESCOE is moving this forward.
- Most reliability needs assessments are focused on specific areas of the system in specific timeframes. The public policy review will be focused on a larger scale and in a longer timeframe. We believe that is appropriate as part of this initiative. Cost allocation for public policy projects could be a challenge.
- If this initiative leads to changes in Attachment K, please keep the Transmission Committee involved in the process.

Item 6.0 – Final 2021 Load Forecast – Regional Energy and Peak Demand Forecast

Mr. Jon Black and Ms. Victoria Rojo (ISO New England) reviewed the Final 2021 Load Forecast – Regional Energy and Peak Demand Forecast.

There were no questions from the committee on this topic.

Item 7.0 – 2021 Economic Study Request

Ms. Carissa Sedlacek (ISO New England) and Mr. Robert Stein (representing NEPOOL) reviewed the 2021 Economic Study Request that was put forward by NEPOOL and will be based on the Future Grid Reliability Study Framework Document and Assumptions Spreadsheet. This will be the first part of the larger Future Grid Reliability Study which will proceed in two phases. Phase 1 of the study will examine the effects of changes to the future grid on operations and reliability of the system, to identify system needs, and possible ways to meet those needs. Phase 2 of the study will address the goals of determining revenue sufficiency and how to maintain

system stability. The Phase 1 study will use a matrix of three main scenarios with three different sets of load and resource assumptions. Five alternative scenarios will also be studied against the three main scenarios. The process will include regular reports and updates to both the PAC and with NEPOOL through the joint Markets and Reliability Committees.

Item 8.0 – 2021 Economic Study Request Assumptions - Part 1 of 2

Mr. Patrick Boughan (ISO New England) reviewed part 1 of the assumptions that will be used for the 2021 Economic Study Request.

In response to stakeholder questions, ISO stated the following:

- We do not have the capacity factor for landfill gas resources at the moment. Those types of generators may not be responsive to price signals and as such, may not run as frequently as other types of resources.
- As part of the Grid View and EPIC studies ISO will be using the 2019 weather year and that will remain consistent throughout the study.

Item 9.0 – Boston 2028 RFP and Order 1000 Lessons Learned Update

Mr. Michael Drzewianowski (ISO New England) reviewed the lessons learned from the 2028 Boston RFP and Order 1000. The presentation was developed to address remaining open items after the February 16th PAC meeting.

Among the responses to stakeholder comments were the following:

- ISO does not support issuing a separate RFP for each need. However, ISO does support allowing a QTPS to solve a subset of the needs.
- ISO is proposing to modify the current process to allow for joint proposals that could solve all of the needs or a portion of the needs. All parties of the proposal will need to be approved QTPS's.
- ISO proposed a modification to the current process that would allow for minor upgrades that can only reasonably be addressed by the incumbent transmission owner, such as protection system changes, to be excluded from an RFP and move forward separately. Multiple stakeholders, including NESCOE and Synapse, expressed concern with this proposal.
- Stakeholders would like to allow a QTPS to require an incumbent PTO to build new facilities as part of its proposal. ISO does not support this as it could add significant time and cost to develop the engineering evaluations and could only be considered where the TO already owns the necessary land to install the new facilities.
- ISO does not plan to change how it addresses project deficiencies. The project will not continue through the process if it does not solve the identified needs.
- ISO will support public posting of redacted project submissions.

- ISO will not change the process to allow QTPSs to provide presentations at the PAC.
- ISO will not move forward with the request that non-incumbent developers that make it to the Phase Two Solutions process should be able to recover Phase One Proposal development costs.

Item 10.0 – Environmental Update

Mr. Patricio Silva (ISO New England) provided an environmental update.

There were no questions from the committee on this topic.

Item 11.0 – Closing Remarks

The next PAC meeting will be Wednesday, May 19, 2021 via WebEx Teleconference.

Meeting Adjourned at 3:40 PM

Respectively submitted,

Marc Lyons
Secretary, Planning Advisory Committee