Planning Advisory Committee WebEx Teleconference September 22, 2021

Attendee	Organization
J. Truswell - Chair	ISO New England Inc.
M. Lyons - Secretary	ISO New England Inc.
M. Ainspan	NRG
S. Ali	PPL Energy Plus
S. Allen	Eversource Energy
J. Babu	Eversource Energy
D. Bergeron	Maine Public Utilities Commission
J. Burlew	ISO New England Inc.
P. Bernard	ISO New England Inc.
P. Boughan	ISO New England Inc.
J. Breard	ISO New England Inc.
D. Burnham	Eversource Energy
E. Camp	Synapse Economics
D. Capra	NESCOE
D. Cavanaugh	Energy New England
W. Coste	ISO New England Inc.
B. D'Antonio	NESCOE
K. Davenport	Avangrid
F. Dieng	Eversource Energy
J. Dong	Eversource Energy
F. Ettori	VELCO
J. Fenn	Versant Power

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
N. Gangi	Eversource Energy
G. Ghanavati	Eversource Energy
K. Huang	New England Power Company
J. Iafrati	Customized Energy Solutions
S. Judd	ISO New England Inc.
S. Kaminski	New Hampshire Electric CoOp
S. Keane	NESCOE
A. Kniska	ISO New England Inc.
M. Kotha	ISO New England Inc.
N. Krakoff	Conservation Law Foundation
A. Krish	Boreas Renewables
B. Kruse	Calpine
M. Kuchan	PPL Energy Plus
K. Kumar	ISO New England Inc.
S. Lamotte	ISO New England Inc.
P. Lopes	Massachusetts DOER
J. Lucas	Eversource Energy
E. Mailhot	ISO New England Inc.
J. Martin	New England Power Company
A. McBride	ISO New England Inc.
B. McKinnon	South Hadley Electric Light and Norwood Municipal

A. Nichols	ISO New England Inc.
B. Oberlin	ISO New England Inc.
K. O'Hora	Eversource Energy
R. Panos	New England Power Company
M. Perben	New England Power Company
H. Presume	VELCO
C. Richards	PPL Energy Plus
E. Roedel	Avangrid
	Galt Power, Cross Sound Cable, BP Energy,
J. Rotger	Mercuria Energy and DTE Energy
E. Runge	Day Pitney
M. Saravanan	ISO New England Inc.
S. Sarkar	New England Power Company
A. Sarmadi	New England Power Company
K. Schlichting	ISO New England Inc.
D. Schwarting	ISO New England Inc.
C. Sedlacek	ISO New England Inc.
P. Shattuck	Anbaric Development Partners
S. Siddiqui	MEPPI
P. Silva	ISO New England Inc.
M. Spencer	Jericho Power
Z. Teti	Avangrid
B. Thomson	MMWEC
J. Troy	Massachusetts DOER
M. Winkler	ISO New England Inc.
P. Wong	ISO New England Inc.

A. Worsley	Transmission Analytics
J. York	New England Energy Connection
F. Zeng	ISO New England Inc.

Item 1.0 – Chairs Remarks

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

Ms. Carissa Sedlacek (ISO-NE) reminder the committee of the upcoming RSP 21 Public meeting to be held Wednesday, October 6, 2021 via WebEx Teleconference beginning at 12:15 PM. Meeting registration is open through ISO-TEN and will be required for participation.

Item 2.0 – A-1 & B-2 69 kV Line Asset Conditions Project

Mr. Rafael Panos (New England Power) provided an overview of the A-1 & B-2 69 kV Line Asset Conditions Project.

In response to stakeholder questions, the New England Power Company (NEP) representative provided the following statements:

- As part of Option 1, the overhead lines going into Otter River will be converted to 115 kV but operated at 69 kV.
- The costs estimates for the project materials based on future cost projections.
- NEP is upgrading the design of the lines (but not their operating voltage) from 69 kV to 115 kV to account for future potential increases in area load or changes regional conditions.
- NEP stated that they are looking into purchasing dual voltage 69 kV/115 kV distribution transformers although none has been purchased at this time.
- NEP agreed to take back and review what the line rating is for 69 kV operation.

Item 3.0 – Moore #20 Substation Asset Separation Project

Mr. Kevin Huang (New England Power) provided an overview of Moore #20 Substation Asset Separation Project.

In response to stakeholder questions, the New England Power Company (NEP) representative provided the following statements:

• The \$14M of non-PTF is related to moving the 34.5 kV equipment.

- The generator leads already exist. They are intercepting them earlier from the existing substation. There will be no charges to Great River Hydro related to the leads.
- The tentative in service date for the project is June 2027.
- A stakeholder pointed out that on slide 5 of the presentation, some corrections will be needed as the station was built in 1956, not 1929.

<u>Item 4.0 – UI 115 kV Derby Junction to Ansonia Corridor Needs and Solutions Update</u>

Mr. Edward Roedel (UI/Avangrid) provided an overview of the UI 115 kV Derby Junction to Ansonia Corridor Needs and Solutions Update.

There were no questions from the committee on this topic.

Item 5.0 – Revised SEMA/RI 2029 Needs Assessment Update Addendum

Mr. Kaushal Kumar (ISO-NE) provided an overview of the Revised SEMA/RI 2029 Needs Assessment Update Addendum.

There were no questions from the committee on this topic.

<u>Item 6.0 – Future Grid Reliability Study (FGRS) Assumptions for Resource Adequacy Screen and Probabilistic Resource Availability Analysis</u>

Mr. Fei Zeng (ISO-NE) provided and overview of the FGRS Assumptions for Resource Adequacy Screen and Probabilistic Resource Availability Analysis.

In response to stakeholder questions, ISO-NE representative provided the following statements:

- Regarding the thermal modeling, ISO-NE will use summer ratings for the whole year.
- The project analysis was performed using the current methodology and framework document. The Effective Load Carrying Capability (ELCC) project is not far enough along to be used for ICR calculations.
- This presentation is at a high-level perspective in regards to how storage resources are modeled to provide reliability.
- ISO developed assumptions where ISO and the neighboring control areas of Quebec and
 the Maritimes and New York are winter peaking at the same time. As such, the assistance
 from these control area would reflect such condition. A stakeholder commented that ISO
 should expand on that position and provide additional facts that support that position, as
 they believe. They believed the MW assistance that we should expect from Quebec might
 be higher.

- ISO-NE will be requesting any comments on this topic by the end of September 2021. Comments should be sent to PACMatters@iso-ne.com
- For the purposes of this study extraordinary weather conditions include various outcomes of extreme low temperatures, extended periods of snow, hurricanes and ice.
- ISO-NE agreed to look into how to collect the solar and wind profiles and try to develop a baseline profile of weather patterns.
- A stakeholder commented that in regards to the deliverables as stated in slide 10 of the presentation, an analysis should be developed between the impacts of probability results versus the current results development.
- Another stakeholder commented that in regard to slide 24, it was suggested that ISO use the DOE metric that 80% of EVs charge at home. That value could be a baseline value for the study.

<u>Item 7.0 – Southwest Connecticut (SWCT) Substation Relay Upgrade Project</u>

Mr. John Babu (Eversource Energy) provided an overview of the Southwest Connecticut (SWCT) Substation Relay Upgrade Project.

There were no questions from the committee on this topic.

<u>Item 8.0 – K42 Line Refurbishment Project</u>

Mr. Hantz Presume (VELCO) provided an overview of the K42 Line Refurbishment Project.

• In response to a stakeholder question, VELCO stated that the expected line outage related to the project will only take a couple of days but we have not determined a specific date for the outage at this time.

<u>Item 9.0 – Western and Central Massachusetts (WCMA) 2029 Study Update</u>

Ms. Sarah Lamotte (ISO-NE) provided an overview of the WCMA 2029 Study Update.

There were no questions from the committee on this topic.

<u>Item 10.0 – Curtailment Analysis for Proposed Interconnections – Pilot Study</u>

Mr. Al McBride provided an overview of the Pilot Study for Curtailment Analysis for Proposed Interconnections.

In response to stakeholder questions, ISO-NE representative provided the following statements:

• This presentation is informational. There will be no changes to the interconnection standards at this time. The driver of the Pilot Study is to assess impacts of operational characteristics and availability of proposed incremental resources.

- The study period is around the year 2025 once the large amounts of off shore wind is on line.
- The expected types of information that will be developed as part of this study are seasonal load values, curtailments of off shore wind from a production cost perspective, transmission outages that could impact generation running, and the impacts of future large scale injects such as the ones projected at Brayton Point.
- A stakeholder commented that ISO-NE should consider looking at potential METU changes to the tariff as part of this review.
- Another stakeholder commented that they support the value of this initiative. They also
 would further support looking at the impact and behavior of storage resources to
 minimize curtailments.

<u>Item 11.0 – 2021 Economic Study – FGRS Phase I – Preliminary Ancillary Services</u> <u>Analysis Results – Part 1</u>

Mr. Patrick Boughan and Mr. Ben Wilson (ISO-NE) provided an overview of the 2021 Economic Study – FGRS Phase I – Preliminary Ancillary Services Analysis Results – Part 1.

In response to stakeholder questions, an ISO-NE representative provided the following statements:

- The positive and negative percentage numbers for each resource represent a snapshot in time and the changes of the resource mix based on the projected forecast.
- The October study results will include the 5-minute intervals for the Security Constrained Economic Dispatch (SCED).
- A stakeholder commented that it would be helpful to put in context the level of imbalances. We don't have enough internal resources and we are relying too much on imports. ISO-NE agreed to take those comments back and include them in future presentations.

<u>Item 12.0 – Closing Remarks</u>

The next PAC meeting will be Wednesday, October 20, 2021. The meeting is tentative scheduled to be in person but we will be following the NEPOOL protocols. Please refer to the ISO Calendar and future announcements for additional information.

Meeting Adjourned at 2:45 PM

Respectively submitted,

Marc Lyons

Secretary, Planning Advisory Committee