

**Planning Advisory Committee  
WebEx Teleconference  
October 20, 2021**

Attendee	Organization
J. Truswell - Chair	ISO New England Inc.
M. Lyons - Secretary	ISO New England Inc.
M. Ainspan	NRG
R. Albrecht	National Diesel Bio Board
S. Ali	PPL Energy Plus
S. Allen	Eversource Energy
R. Andrew	Eversource Energy
E. Annes	Connecticut Public Utilities Commission
M. Babula	ISO New England Inc.
D. Bergeron	Maine Public Utilities Commission
P. Bernard	ISO New England Inc.
M. Birchard	Acadia
P. Boughan	ISO New England Inc.
J. Breard	ISO New England Inc.
J. Brodbeck	Marble River
D. Burnham	Eversource Energy
D. Capra	NESCOE
D. Cavanaugh	Energy New England
S. Chen	RLC Engineering
R. Collins	ISO New England Inc.
S. Conant	RLC Engineering
D. Conroy	RLC Engineering

W. Coste	ISO New England Inc.
B. D'Antonio	NESCOE
F. Dieng	Eversource Energy
M. Drzewianowski	ISO New England Inc.
F. Etori	VELCO
J. Fenn	Versant Power
B. Forshaw	CMEEC
B. Fowler	<b>Wheelabrator North Andover Inc.; Exelon Generating Company LLC; Nautilus Power; Dynegy Power Marketing, LLC; Entergy Nuclear Power Marketing LLC; Great River Hydro, LLC</b>
N. Gangi	Eversource Energy
S. Garwood	New Hampshire Transmission
L. Guilbault	HQ US
A. Hanenkratt	New England Power Company
G. Heimgartner	Maine Public Utilities Commission
G. Hollis	NextEra Energy Marketing
D. Hurley	Synapse Economics
J. Iafrati	Customized Energy Solutions
S. Judd	ISO New England Inc.
S. Kaminski	New Hampshire Electric CoOp
T. Kaslow	First Light Power Management
S. Kirk	Exelon Generation Company
S. Keane	NESCOE
R. Kornitsky	ISO New England Inc.
M. Kotha	ISO New England Inc.
N. Krakoff	Conservation Law Foundation

A. Krish	Boreas Renewables
F. Kugell	Avangrid
K. Kumar	ISO New England Inc.
S. Lamotte	ISO New England Inc.
J. London	Eversource Energy
P. Lopes	Massachusetts DOER
J. Lucas	Eversource Energy
E. Mailhot	ISO New England Inc.
C. Malone	Avangrid
A. Margolis	Vermont Department of Public Service
T. Martin	New England Power Company
B. McKinnon	Norwood Municipal, South Hadley Electric Light
A. Mitreski	Brookfield Renewables
H. Ni	CMEEC
A. Nichols	ISO New England Inc.
A. Novicki	Avangrid
B. Oberlin	ISO New England Inc.
K. O'Hora	Eversource Energy
L. Ortiz	Anbaric Development Partners
T. Paradise	Anbaric Development Partners
P. Powers	American Petroleum Institute
H. Presume	VELCO
S. Rastegar	ISO New England Inc.
C. Richards	PPL Energy Plus
J. Rotger	Galt Power, Cross Sound Cable, BP Energy, Mercuria Energy and DTE Energy

E. Runge	Day Pitney
D. Schwarting	ISO New England Inc.
M. Scott	New England Power Company
C. Sedlacek	ISO New England Inc.
P. Shattuck	Anbaric Development Partners
P. Silva	ISO New England Inc.
M. Simmons	Maine Public Utilities Commission
J. Slocum	Massachusetts Department of Public Utilities
K. Slonski	Eversource Energy
C. Soderman	Eversource Energy
R. Stein	Generation Group Member, NRG Power Marketing, HQ Energy Services, PSEG Energy Resources & Trade, SunEdison
Z. Teti	Avangrid
B. Thomson	MMWEC
R. Vega	ISO New England Inc.
A. Weinstein	Dynegy Marketing and Trade
W. Whittier	RLC Engineering
B. Wilson	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.
J. Zhang	ISO New England Inc.

### **Item 1.0 – Chairs Remarks**

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

### **Item 2.0 – Eversource Laminated Wood Structure Replacement Program – Phase II**

Mr. Chris Soderman (Eversource Energy) reviewed the Eversource Laminated Wood Structure Replacement Program Phase II.

In response to stakeholder questions, Mr. Soderman provided the following statements:

- Even though the 345 kV Lines in Connecticut represent only a small portion of the laminated wood structures, it is the area with the most issues.
- Eversource noted that many other areas of the country are moving away from the laminated wood structures and replacing them with steel.
- The initial overhead inspections didn't show extensive external damage but when viewed with closer inspections, Eversource found significant issues with the interior of the structures.
- Eversource will pursue PTF cost recovery for the structure replacement.
- Eversource agreed to return to the PAC in Q1 or Q2 of 2022 with updated cost estimates or the cost estimates could be provided during the Asset Condition list updates.

### **Item 3.0 – 2021 Economic Study - Future Grid Reliability Study (FGRS) Phase I – High Level Transmission Analysis – Preliminary Results**

Mr. Patrick Boughan and Mr. Steven Judd (ISO-NE) provided a review of the 2021 Economic Study - Future Grid Reliability Study (FGRS) Phase I – High Level Transmission Analysis – Preliminary Results.

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

- ISO-NE agreed to update the presentation to reflect a 2800 MW flow on the Surowiec South interface.
- No generation is shown in the pipe and bubble diagram but it is in the model and study and includes the off shore wind.
- ISO-NE is reflecting the appropriate import and export limits on the New Brunswick interface.
- In addition to the off shore wind going into SEMA, there other scenarios that reflect power going into other areas like Boston and RI.
- The study analysis did not result in changes to the battery and solar locations in order to make it a more optimal project. ISO-NE will not agree to commit to this type of additional analysis.
- The study analysis is using the same definition as ISO-NE has previously used for cost congestion.

- There is an updated presentation that was given at the Joint MC/RC meeting on October 19<sup>th</sup> that shows generation POIs by generation type.

**Item 4.0 - 2021 Economic Study - Future Grid Reliability Study (FGRS) Phase I – Preliminary Ancillary Services Results – Part 2**

Mr. Patrick Boughan and Mr. Benjamin Wilson (ISO-NE) provided a review of the 2021 Economic Study - Future Grid Reliability Study (FGRS) Phase I – Preliminary Ancillary Services Results – Part 2.

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

- Storage is dispatched in layers of the program that run less frequently so some storage response is modeled as a proxy in regulation to show the more instantaneous that storage is capable of.
- In response to a question about why only 600 MWs of BESS in Scenario 3 as noted on slide 6 of the presentation, ISO stated that this value was requested by NEPOOL.
- The study analysis shows that system has a shortfall of regulation and reserves in Scenario 3 cases.
- This study did not include dual fuel resources in the model. This only represents the primary fuel source.

**Item 5.0 - 2021 Economic Study - Future Grid Reliability Study (FGRS) Phase I – Resource Adequacy Screen and Probabilistic Resource Availability Analysis Assumptions – Part 2**

Mr. Fei Zeng (ISO-NE) provided a review of the 2021 Economic Study - Future Grid Reliability Study (FGRS) Phase I – Resource Adequacy Screen and Probabilistic Resource Availability Analysis Assumptions – Part 2.

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

- The study analysis represents a bundling of off shore with the on shore wind and solar. ISO-NE is determining if we can break it down further to analyze each type of resource.
- ISO-NE stated that the current methodology uses the traditional QC and EFORd. In the probabilistic resource availability model, ISO will use the hourly profiles scaled by its name-plate value of the resource.
- In modeling the extreme weather impacts (snow, freezing rain, hail), a probability of the various impacts occurring will be input into the simulation tool. We will have 10 years of historical profiles to choose from, with additional extreme weather profiles.
- In regards to the weather conditions, the scope of work will look at wind and solar impacts, but not other types of impact such as loss of gas supply.

- A stakeholder commented that instead of taking out 100% of the New England wind and solar resources during extreme weather events, ISO-NE should reduce the amount of outages and duration or reduce the probability of that type of event occurring.
- Another stakeholder commented that on slide 10, the model is only looking at solar installations. With the increase of joint solar and batteries resources, ISO-NE should look at those potential impacts going forward.

### **Item 6.0 – Regional System Plan Transmission Projects and Asset Conditions – October 2021 Update**

Mr. Rudi Vega (ISO-NE) provided a review of the Regional System Plan Transmission Projects and Asset Conditions – October 2021 Update.

- ISO-NE agreed to revise the final spreadsheet and edit it to state that the BAOS project TCA was not approved.

### **Item 7.0 – SEMA/RI 2030 Minimum Load Needs Assessment Results**

Mr. Kaushal Kumar (ISO-NE) provided a review of the SEMA/RI 2030 Minimum Load Needs Assessment Results.

There were no questions from the committee regarding this topic.

### **Item 8.0 – Updated Transmission Planning Technical Guide – Version 7.1**

Mr. Jon Breard (ISO-NE) provided a review of the Updated Transmission Planning Technical Guide – Version 7.1.

- In regards to the post contingency low voltage as stated on slide 5 of the presentation, ISO-NE agreed to review if Sandy Pond has a low voltage limit.
- The North Cambridge substation was included in the planned series reactors.

### **Item 9.0 – Closing Remarks**

The next regularly scheduled PAC meeting will be Wednesday, November 17, 2021 via WebEx Teleconference.

**Meeting Adjourned at 1:50 PM**

### **Transmission Owners Local System Plans (TOPAC LSPs)**

(TOPAC Chair – Versant Power: Jeff Fenn)

- **New Hampshire Transmission LSP**  
(Presentation) (NHT: Steve Garwood)

- **VELCO LSP**  
(Presentation) (VELCO: Hantz Presume)
- **CTMEEC LSP**  
(Presentation) (CTMEEC: Hao Ni)
- **Versant LSP**  
(Presentation) (Versant: Jeff Fenn)
- **Avangrid LSP**  
(Presentation) (Avangrid: Forrest Kugell)
  
- **NGrid LSP**  
(Presentation) (NGrid: Aaron Hanenkratt)
- **Eversource Energy LSP**  
(Presentation) (Eversource: Dave Burnham)

As this is a TOPAC meeting, no formal PAC minutes were annotated for the LSP topics.

Respectively submitted,

Marc Lyons  
Secretary, Planning Advisory Committee