

**Planning Advisory Committee
WebEx Teleconference
May 18, 2022**

Attendee	Organization
J. Truswell - Chair	ISO New England Inc.
M. Lyons - Secretary	ISO New England Inc.
M. Allen	VELCO
S. Allen	Eversource Energy
B. Anderson	NEPGA
R. Andrew	Eversource Energy
M. Babula	ISO New England Inc.
D. Bergeron	Maine Public Utilities Commission
P. Bernard	ISO New England Inc.
M. Birchard	Acadia Center
J. Black	ISO New England Inc.
P. Boughan	ISO New England Inc.
H. Braun	London Economics
J. Breard	ISO New England Inc.
J. Burlew	ISO New England Inc.
D. Capra	NESCOE
D. Cavanaugh	Energy New England
R. Collins	ISO New England Inc.
D. Conroy	RLC Engineering
W. Coste	ISO New England Inc.

C. Crews	Northeast Gas Association
B. D'Antonio	Eversource Energy
J. Dong	Eversource Energy
M. Drzewianowski	ISO New England Inc.
F. Etori	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
J. Frost	Synapse Economics
G. Ghanavati	Eversource Energy
J. Gordon	CPV Towantic
J. Halpin	Eversource Energy
N. Hutchings	ISO New England Inc.
J. Iafrati	Customized Energy Solutions
S. Kaminski	New Hampshire Electric CoOp
S. Kirk	Exelon
R. Kornitsky	ISO New England Inc.
N. Krakoff	Conservation Law Foundation
B. Kruse	Calpine
F. Kugell	Avangrid
R. Lafayette	Eversource Energy
S. Lamotte	ISO New England Inc.
Z. Logan	Avangrid
P. Lopes	Massachusetts DOER

J. Lucas	Eversource Energy
A. Margolis	Vermont Public Utilities Commission
J. Martin	New England Power Company
P. Melzen	Eversource Energy
A. Mitchell	New England Power Company
A. Nichols	ISO New England Inc.
S. Nikolov	ISO New England Inc.
A. Onwuachumba	RLC Engineering
H. Pathan	Eversource Energy
D. Patnaude	Eversource Energy
M. Perben	ISO New England Inc.
H. Presume	VELCO
M. Purdie	Dominion Energy
C. Richards	PPL Energy Plus
V. Rojo	ISO New England Inc.
J. Rotger	Galt Power, Cross Sound Cable, BP Energy, Mercuria Energy and DTE Energy
E. Runge	Day Pitney
M. Saravanan	ISO New England Inc.
D. Schwarting	ISO New England Inc.
M. Scott	New England Power Company
A. Singh	ISO New England Inc.
J. Slocum	Massachusetts Public Utilities Commission
R. Snook	Connecticut DEEP
P. Sousa	Marble River

R. Stein	Generation Group Member, NRG Power Marketing, HQ Energy Services, PSEG Energy Resources & Trade, SunEdison
Z. Teti	Avangrid
D. Thompson	Connecticut Office of Consumer Counsel
B. Thomson	PPL
J. Vaile	Eversource Energy
P. Vijayan	ISO New England Inc.
A. Weinstein	Dynegy Marketing and Trade
P. Wong	ISO New England Inc.
A. Worsley	Transmission Analytics
J. Zhang	ISO New England Inc.

Item 1.0 – Chairs Remarks

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

- Future Grid Reliability Study Phase I – Negative Net Revenues for Dispatched Natural Gas Resources

There were no questions from the committee on this topic.

Item 2.0 – Eversource 345 kV Breaker Replacement Project

Mr. Paul Melzen (Eversource Energy) reviewed the Eversource 345 kV Breaker Replacement Project.

There were no questions from the committee on this topic.

Item 3.0 – VELCO Transmission Line Refurbishment – K21, K32, & K50

Mr. Hantz Presume (VELCO) provided an overview of the VELCO Transmission Line Refurbishment project for the 115 kV K21, K32, and K50 lines.

There were no questions from the committee on this topic.

Item 4.0 – CMP NERC Alert Priority III TCA Requirements

Mr. Zach Logan (CMP/Avangrid) provided an overview of the CMP NERC Alert Priority III TCA Requirements.

There were no questions from the committee on this topic.

Item 5.0 – Final 2022 Energy and Seasonal Peak Forecasts

Ms. Victoria Rojo (ISO-NE) provided an update on the long-term energy and demand forecasts that was published in the 2022 CELT report. There were a number of updates since the publishing of the 2021 CELT forecast such as a new 30 year weather period from 1991 to 2020, peak demand and energy models, finalized 2022 heating and electrification forecasts, Moody's 2022 macroeconomic outlook, final 2022 EE and BTM PV forecasts, and FCA 16 CSO values for passive demand resources.

The only questions from stakeholders were clarifications regarding some of the data and charts within the presentation.

Item 6.0 – Update on the New England Natural Gas Developments

Mr. Charles Crews (Northeast Gas Association) reviewed the annual New England Natural Gas Developments. As a result of the relatively mild winter, there were no gas supply issues that impacted generation in the region. However, due constrained capacity pipelines into the region, high natural gas prices reflected the winter scarcity conditions and reliance on LNG imports to supplement pipeline supplies.

In response to stakeholder questions, the Northeast Gas Association provided the following statements:

- Regarding LNG spot shipments, that term refers to the delivery time of LNG. In the past, the delivery planning process takes place months ahead of time. Currently, the delivery planning process is occurring much sooner and is considered spot shipments.
- Last winter, we saw the lowest level of LNG injections to the region in years. The cause of the low level LNG injections is uncertain but it was a relatively mild winter and LNG injections weren't as critical as in past years.
- It is anticipated that electrification will increase gas consumption for generators and prices will rise as a result.
- It is expected that prices will increase as we move toward winter and exports to Europe increase.

Item 7.0 – Transmission Planning for the Clean Energy Transition – Updates on DER Modeling Assumptions

Ms. Annalyse Nichols (ISO-NE) reviewed the updates made for DER modeling as part of the TPCET initiative. In power flow cases, DER (primarily solar generators) of 5 MW or less were modeled as negative loads in steady state cases and were broken down into two categories. Category 2 DERs have a nameplate rating of 1-5 MWs with locational data collected through the PPA process. Category 3 DERs have a nameplate rating of less than 1 MW, without locational data, that were modeled using a geographical estimate of town by town. Category 1 DERs are greater than 5 MWs and are modeled generators. ISO-NE has been working with TOs to collect the substation to which each DER installation is connected as part of Load Forecasting's DER Survey. To date, NGrid is the only TO to complete the data collection and mapping to substations. The assumptions used in the Pilot Study showed widespread DER tripping throughout New England for design contingencies. The next steps are to update the Transmission Planning Technical Guide (TPTG) to reflect the new DER modeling assumptions to model the location of DERs on a bus-by-bus basis and to make adjustments to power factor assumptions during conditions where DER output outweighs load at a substation.

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

- The data used in the DER modeling assumptions comes from the PV forecast.
- There is an issue with the ride through capability from the modeled inverters.
- ISO-NE is adjusting the DER modeling assumptions originally developed during the pilot study.
- ISO-NE is concerned with the current inverters in the model and we are proposing an assumption that they will need upgrading.
- The Transmission Planning Technical Guide modeling assumptions update will be occurring in Q4 2022.

Item 8.0 – Closing Remarks

The next scheduled PAC meeting will be conducted virtually on Wednesday, June 15, 2022.

Meeting Adjourned at 11:30 AM

Respectively submitted,

Marc Lyons
Secretary, Planning Advisory Committee