Planning Advisory Committee Doubletree Hotel – Westborough, MA October 24, 2019

Joe Adadjo	Eversource Energy
Bob Andrew	Eversource Energy
Denis Bergeron	Maine PUC
Peter Bernard	ISO New England Inc.
Cal Bowie	Eversource Energy
Jon Breard	ISO New England Inc.
Dorothy Capra	NESCOE
Kathryn Cox	New England Power
Digaunto Chatterjee	Eversource Energy
Liz Delaney	Environmental Defense Fund
Michael Drzewianowski	ISO New England Inc.
Frank Ettori	VELCO
Jeff Fenn	Emera Maine
Lisa Fink	Maine PUC
Kevin Flynn	ISO New England Inc.
Brian Forshaw	CMEEC
Michelle Gardner	NextEra Energy
Steve Garwood	New Hampshire Transmission
Ben Griffiths	Massachusetts AG
Marcos Guispe	Massachusetts DPU
Faheem Ibrahim	ISO New England Inc.
Eric Jacobi	FERC
Graham Jesner	ISO New England Inc.
Tom Kaslow	FirstLight Energy
Steve Kirk	Exelon Energy
Andrew Kniska	ISO New England Inc.
Rich Kowalski	ISO New England Inc.
Abby Krish	Boreas Renewables
Kaushal Kumar	ISO New England Inc.
Joe LaRusso	City of Boston
Paul Liang	Eversource Energy
Paul Lopes	Massachusetts DCAM
Marc Lyons	ISO New England Inc.
Eva Mailhot	ISO New England Inc.
Tim Martin	New England Power
Bruce McKinnon	South Hadley Municipal/Norwood Municipal
Don Nelson	Massachusetts DPU
Brent Oberlin	ISO New England Inc.
Nithya Reddy Tada	ISO New England Inc.
Abhinav Rawat	New England Power
Steve Smith	New England Power
Phil Tatro	EN Engineering

Pradip Vijayan	ISO New England Inc.
Frank Walsh	Avangrid
Lawrence Willick	LS Power

<u> Item 1.0 – Chairs Remarks</u>

Mr. Pete Bernard welcomed the committee and reviewed the days' agenda.

Item 2.0 – New England Bulk Power System List Update

Mr. Dan Schwarting (ISO-NE) provided an update to the New England Bulk Power System List.

Q- The NPCC A10 is under review. Will that impact the BPS testing?

A - The revised A10 is not approved yet. We expect approval in early 2020. We started the BPS list review in March 2019 and we didn't want to wait in excess of a year to perform the BPS list review. We will do another review after A10 is approved and we expect changes to the BPS list as a result.

Q - What is the driver of the BPS determinations?

A - Stresses on buses and interfaces.

Q - When do you expect RCC approval of the BPS list?

A - February 2020.

Q - Is there something other than protection system upgrades that would drive a BPS upgrade?

A - NPCC have a multiple contingence requirement for BPS which could be outside protection system upgrades.

Q - Would you consider making this a CEII presentation so we can discuss the specific BPS bus changes.

A - We will take that back for consideration.

Q - Would ISO approve building to BPS standards and get cost recovery through RNS even if it is not BPS required?

A - We would analyze that on a case by case basis.

Item 3.0 – New Hampshire 2029 Needs Assessment

Ms. Jinlin Zhang (ISO-NE) reviewed the New Hampshire 2029 Needs Assessment.

Q-If ISO will not develop solutions for non-PTF facilities where an issue is discovered, is there a potential for making the issues at the non-PTF facilities worse as a result of the needs assessment?

A - If the solution study did not address these issues, it would be captured and addressed as part of the PPA process.

Q-At the RC there was a PPA that identified an over-dutied breaker at Seabrook. Why is that not addressed in this presentation?

A – The Seabrook breaker is non-PTF and therefore not part of this review. It would be addressed as part of the PPA process.

Q – On non-transmission options, ISO should consider these as part of the area needs assessment solutions.

A - Under Attachment K we need to understand what we can count on. Without valid contracts or approved PPAs, we can't consider non-transmission options.

Item 4.0 – Derby Junction to Ansonia Corridor Transmission Upgrades

Mr. Edward Roedel (Avangrid) reviewed the Derby Junction to Ansonia Corridor Transmission Project Upgrades.

Q-Have you considered replacing the circuit with a single higher capacity line?

A - We didn't review that option but the loss of load would be too great. With that option it takes multiple contingencies to take the line down versus a single contingency.

Q - Does option 1 increase the line rating or would option 2 or 3 be better if they would increase ratings.

A - Option 1 is of equivalent rating to the existing rating.

Comment – If you change the conductor to ACSS you would gain significant line rating without a great amount of additional cost.

Item 5.0 – 1355 115 kV Line Rebuild and Asset Condition Project

Mr. John Case (Eversource) provided an overview of the 1355 115 kV Line Rebuild and Asset Conditions Project.

- Q What is the lifespan difference between steel towers versus wood poles?
- A Our expectation is a 60-year lifespan for steel versus a 40-year lifespan for wood poles.

Q-Is the proposed tower configuration on the right side of the right of way to allow another circuit to be added if necessary?

A – That is correct. This will allow a future circuit to be added along the right of way in the future if needs dictate.

Item 6.0 – RSP Transmission Project and Asset Conditions – October 2019 Update

Mr. Brent Oberlin (ISO-NE) reviewed the October 2019 Transmission Projects and Asset Conditions.

Comment – NESCOE expressed concern with the increased costs for Greater Boston and Seacoast New Hampshire. It was emphasized that the TO's need to provide better review of the costs estimates.

Q-Do the steel tariffs have an impact on the cost increases?

A – There is a cost impact but it is not significant.

Comment – *It was requested that ISO provide more specific details on the project cost increases.* A – Additional details on the cost increases will be reviewed during the TCA process.

Comment – It was requested that Eversource provide additional cost details at a future PAC meeting.

Planning Advisory Committee meeting adjourned at 11:45 AM.

At the conclusion of the PAC meeting, a TOPAC meeting was held to discuss the annual Transmission Owners Local System Plans (LSPs) for New Hampshire Transmission, VELCO, Emera Maine, Avangrid, NGrid, and Eversource Energy.

Respectively submitted

Marc Lyons Secretary, Planning Advisory Committee