

**Planning Advisory Committee  
Doubletree Hotel, Westborough, MA  
September 28, 2017**

Bob Andrew	Eversource Energy
Denis Bergeron	Maine Public Utilities Commission
Peter Bernard	ISO New England Inc.
Cal Bowie	Eversource Energy
Dave Bradt	Avangrid
Jon Breard	ISO New England Inc.
David Burnham	Eversource Energy
Dorothy Capra	NESCOE
John Case	Eversource Energy
Nicholas Cicale	Next Era Energy Marketing
Ray Coxe	Mosaic Energy Insights for Brookfield
Fabio Dallorto	ISO new England
Amro Farid	Dartmouth College
Jeff Fenn	Emera Maine
Brian Forshaw	CMEEC
Nicholas Gangi	Eversource Energy
Michelle Gardner	Next Era Energy
Steve Garwood	New Hampshire Transmission
Mike Henderson	ISO New England Inc.
Bruce Ho	Natural Resources Defense Council
Jeff Iafrazi	Customized Energy Solutions
Jeff Jones	Maine Power
Steve Judd	ISO New England Inc.
Tom Kaslow	First Light Power Resources
Rich Kowalski	ISO New England Inc.
Abby Krich	Boreas Renewables
Kaushal Kumar	ISO New England Inc.
Michael Kuser	RTO Insider
Marc Lyons	ISO New England Inc.
Lisa Martin	Emera Maine
Tim Martin	New England Power
Bruce McKinnon	South Hadley Municipal & Norwood
John Moskal	U.S. EPA
Susan Muller	Boreas Renewables
Brent Oberlin	ISO New England Inc.
Theodore Paradise	ISO New England Inc.
Paul Peterson	Synapse
Fred Plett	Massachusetts Attorney General Office
Michael Purdie	Dominion Energy
Abhinav Rawat	New England Power Company
Nithya Reddy Tada	ISO New England Inc.
Alex Rost	ISO New England Inc.
Eric Runge	Day Pitney
Bob Russo	Eversource Energy
Melissa Scott	New England Power Company
Bob Stein	HQ US/NRG/PSEG/Footprint
Brian Thomson	MMWEC
Pradip Vijayan	ISO New England Inc.

Greg Wade	ISO New England Inc.
Peter Wong	ISO New England Inc.
Jinlin Zhang	ISO New England Inc.

### **Item 1.0 – Chair’s Remarks**

Mr. Peter Bernard Welcomed the committee and reviewed the day’s agenda.

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Mr. Bernard reminded the committee that he October PAC meeting will be held at the Doubletree Hotel in Milford, MA. Mr. Bernard also reminded the committee that the TO’s will be presenting their Local System Plans (LSP’s) at the October PAC. Please submit your presentations to ISO for review by October 4<sup>th</sup>.

*Q – There are several agreed to processes missing from the Transmission Planning Technical Guide. Will those be included?*

A – The current revision of the Transmission Planning Technical Guide is for a reorganization of the document. Additional revisions are planned for Q4 of 2017 which will include those processes that were mentioned. ISO felt it was more efficient to reorganize the guide first and then add in the new processes in the next round of revisions.

### **Item 2 – 2016 Scenario Analysis – Phase I Report and Comments**

Mr. Mike Henderson (ISO) reviewed the 2016 Scenario Analysis Phase I report along with responses to stakeholder comments.

*Comment – CLF wanted more context described for Scenario 3 to take into account various state public policies on renewable and emission initiatives. (Comment 10)*

*Comment – RENEW wanted a language revision to state that it will be impossible versus challenging, to meet state emissions requirements and RGGI initiatives for all the scenarios with the exception of Scenario 3. (Comment 17)*

*Comment – It was suggested that we remove any descriptive language such as challenging versus impossible, regarding the results. Let the study results speak for themselves. Quantify where ever possible.*

*Comment - Please add a footnote that ISO is using the EIA numbers for on and off-shore wind and the costs may not be accurate on an order of magnitude. (Comment 56)*

### **Item 3 – Card-Montville-Tunnel Corridor Asset Conditions and OPGW Installation Project**

Mr. John Case (Eversource) provided an overview of the Card-Montville-Tunnel Corridor Asset Conditions and OPGW Installation Project.

*Q - Are there any other circuits on this right of way?*

A - There are no other 345 kV or 69 kV circuits on this right of way.

*Q - Does the OPGW serve all the distribution substations on this right of way?*

A - The installation will allow for future connection to substations not being immediately connected as part of this project.

*Q – You are replacing 146 structures. Will you be replacing the remaining structures at a future date?*

A - We found no significant deterioration of the remaining structures so to keep costs down, we decided not to replace all the structures as part of this project. We will continue to inspect the structures and will eventually replace them as needed.

#### **Item 4 – Lexington Station #320 Asset Conditions Upgrade Project and OPGW Installation**

Mr. Bob Andrew (Eversource) provided an overview of the Lexington Station #320 Asset Conditions Upgrade Project and OPGW Installation.

*Q - Is the main driver for this project the NPCC BPS criteria?*

A – It is for the control house portion of the project.

#### **Item 5 – 2027 Needs Assessment Scope of Work – Common Assumptions and Study Methodology**

Mr. Kaushal Kumar (ISO) provided a review of the 2027 Needs Assessment Scope of Work – Common Assumptions and Study Methodology.

*Q - Are the 90/10 and 50/50 MW values on slide 10 used in the base cases, gross numbers or net numbers?*

A – They are gross values.

*Q - Is the Active EE frozen after 2021?*

A – It is. But we will be adding in MWs for the passive EE after 2021.

*Q - Will the short circuit analysis include energy only resources and behind the meter resources?*

A – We will include energy only resources and whatever behind the meter generation that has been provided by the TO within the study area.

#### **Item 6 – SWCT 2027 Needs Assessment Scope of Work**

Mr. Pradip Vijayan (ISO) provided a review of the SWCT 2027 Needs Assessment Scope of Work.

*Q – Why is the Northport line from NY into SWCT set to 0 MWs?*

A – We base the imports for the studies on capacity values. We do not count on the Northport line for capacity and therefore, it is not included in the base case.

*Q – When was the last time a SWCT study was done and what was the year of the study?*

A – The final presentation was posted in Q1 2016 and the study year was 2025.

### **Item 7 – Eastern Connecticut 2027 Needs Assessment Scope of Work**

Mr. Jon Breard (ISO) provided a review of the Eastern Connecticut 2027 Needs Assessment Scope of Work.

*Q - Why don't you show the imports and exports to eastern Connecticut?*

A – There are no defined import and export interfaces with eastern Connecticut. That's why it's not shown unlike SWCT which does have defined interfaces.

### **Item 8 – New Hampshire 2027 Needs Assessment Scope of Work**

Ms. Jinlin Zhang (ISO) provided a review of the New Hampshire 2027 Needs Assessment Scope of Work.

*Q – In regards to Northern Pass, is including the DC line in the short circuit analysis based on the type of inverter in use for the project?*

A – No. Northern Pass was included in the short circuit analysis due to all the components of the project to include the AC portions.

### **Item 9 – 2017 ISO-NE System Operational Analysis and Renewable Energy Integration Study (SOARES)**

Dr. Amro Farid (Dartmouth College) provided an overview of the 2017 ISO-NE System Operational Analysis and Renewable Energy Integration Study (SOARES).

*Q - Do we have benchmark data for frequency information?*

A – We are not looking at transient stability analysis. This is more a steady state economic analysis.

Planning Advisory Committee meeting was adjourned at 3:45 PM

A TOPAC meeting convened at 3:45 PM to discuss the Transmission Owners Public Policy Requirements.

Respectively submitted

Marc Lyons  
Secretary, Planning Advisory Committee