Planning Advisory Committee
Doubletree Hotel, Westborough, MA
September 6, 2017

Bob Andrew	Eversource Energy
Denis Bergeron	Maine Public Utilities Commission
Peter Bernard	ISO New England Inc.
Cal Bowie	Eversource Energy
Jon Breard	ISO New England Inc.
John Brodbeck	Marble River
David Burnham	Eversource Energy
Dorothy Capra	NESCOE
Nicholas Cicale	Next Era Energy Marketing
Ray Coxe	Mosaic Energy Insights for Brookfield
Fabio Dallorto	ISO new England
Liz Delaney	Environmental Defense Fund
Paul Dumas	Avangrid
Jeff Fenn	Emera Maine
Brian Forshaw	CMEEC
Bill Fowler	Exelon/Dynegy/Calpine
Nicholas Gangi	Eversource Energy
Steve Garwood	New Hampshire Transmission
Monica Gonzalez	ISO New England Inc.
Mike Henderson	ISO New England Inc.
Jeff Iafrati	Customized Energy Solutions
Steve Judd	ISO New England Inc.
Shelia Keane	Massachusetts Department of Public Utilities
Abby Krich	Boreas Renewables
Marc Lyons	ISO New England Inc.
Al McBride	ISO New England Inc.
Bruce McKinnon	South Hadley Municipal & Norwood
Chris Morin	Avangrid
Brent Oberlin	ISO New England Inc.
Theodore Paradise	ISO New England Inc.
Marianne Perben	ISO New England Inc.
Abhinav Rawat	New England Power Company
Alex Rost	ISO New England Inc.
Matthew Robinson	RLC Engineering
Jose Rotger	Cross Sound Cable Company
Eric Runge	Day Pitney
Bob Russo	Eversource Energy
Michael Smalec	Connecticut DEEP
Bob Stein	HQ US/NRG/PSEG/Footprint
Brian Thomson	MMWEC
Pradip Vijayan	ISO New England Inc.
Wayne Whittier	RLC Engineering
Paul Williamson	Apex Clean Energy

Item 1.0 – Chair's Remarks

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

Mr. Mike Henderson (ISO) provided an update regarding the 2017 ISO-NE System Operational Analysis and Renewable Energy Integration Study (SOARES). This is a technical review of 2016 Economic Study on Ramping, Regulation and Reserves.

Comment – It was requested that a formal review of the study before the committee.
A - We will have a formal discussion on the topic at a future PAC meeting.

Item 2 – Eversource Autotransformer Replacement Plan

Mr. Bob Andrew (Eversource) provided an overview of the Eversource Autotransformer Replacement Plan due to age (30 to 45 years old) and equipment conditions.

Q - If the transformers are similar in specifications, could you take an autotransformer out and replace another autotransformer in worse condition?
A - That is not a feasible solution due to the size of the autotransformers, locations of the other failing autotransformers, and the configurations are not similar in nature (345/115kV and different MVA).
Q - Are other TO's are experiencing similar issues with their autotransformers?
A - No TO's in the room could recall if their autotransformers were having similar issues.

Item 3 – Maine Resource Integration Study

Mr. Al McBride (ISO) provided an overview of the Maine Resource Integration Study regarding additional scenarios and clustering formations.

Q - If a smaller cluster was built and then another cluster was built later, could we stage the transmission lines where one line is only needed for the first cluster and the second line to Pittsfield would be constructed when the second cluster is built.
A - That would be acceptable.
Q – Will the substation cost allocation be on a MW basis?
A - It would have to be on a MW basis.
Q - Would ISO consider delaying the clustering System Impact Study to coincide with the Massachusetts RFP?
A - ISO would not consider that as a potential delay would be harmful to those projects currently in the cluster queue.

Other clarifying questions were asked and responded to by Mr. McBride.

Item 4 – Transmission Planning Technical Guide – Guide Reorganization Template and Style Guide Updates Probabilistic Methods Addition
Mr. Steve Judd (ISO) provided an update regarding the Transmission Planning Technical Guide – Guide Reorganization Template and Style Guide Updates Probabilistic Methods Addition.

There were no questions from the committee on this topic.

Item 5 – Transmission Assumptions – Probabilistic Methodology Implementation for Base Case Creation
Mr. Steve Judd (ISO) provided an update regarding the Transmission Assumptions – Probabilistic Methodology Implementation for Base Case Creation.

Comment – A stakeholder expressed concern using a five day week instead of a full seven days as we have experienced more issues on the weekends versus weekdays.
Q - Regarding the statement "transmission security risk of each study area is independent". How does that account for interfaces?
A - The complexity of calculating the risk factors for multiple study areas is significant but not statistically relevant for the risk study of each independent study area.
Q – Has ISO compared their probabilistic outage assumption results with historical outages?
A - We have reviewed the probabilistic study results versus historical outages. Based on discussions with ISO Operations, the probabilistic outage results closely align with the historical values.

Item 6 - Creation of Needs Assessment Dispatches – Inclusion of Probabilistic Methods
Mr. Pradip Vijayan (ISO) provided an overview of the Creation of Needs Assessment Dispatches – Inclusion of Probabilistic Methods.

Q - How is ISO defining "renewable generation"?
A - It includes all generators whose fuel source could be considered renewable such as wind, PV, hydro, pumped storage, etc….
Q - How are exports into Long Island from Connecticut over the Cross Sound Cable handled?
A - Historically we have not seen sustained exports on that tie other than a 100 MW contract which has since expired. As such, we are not modeling that specific export in the studies.
Q - Could ISO research how PV is categorized as part of the forecast. I believe the PV forecast only accounts for behind the meter PV. You are stating that it includes all PV (PV with a CSO, PV with no CSO, and behind the meter PV).
A - We will take that back for review and we will update the PAC when we have the answer.
Q – Are the fast start generators on or off in the base cases.
A - The units are modeled as on using probabilistic outage rate unless they are being held for reserves.
Q - How is Lake Road modeled? Is it in or out of Connecticut?
A - Lake Road is modeled in Connecticut since the commissioning of NEEWS Interstate.

Planning Advisory Committee meeting was adjourned at 2:30 PM

Respectively submitted

Marc Lyons
Secretary, Planning Advisory Committee