Planning Advisory Committee
Doubletree Hotel – Westborough, MA
May 21, 2019

Bruce Anderson	NEPGA
Bob Andrew	Eversource Energy
Katie Bellezza	Novatus Energy
Andrew Bachert	GE Energy Consultant
Peter Bernard	ISO New England Inc.
Jon Black	ISO New England Inc.
Cal Bowie	Eversource Energy
Margo Caley	ISO New England Inc.
Erin Camp	Synapse Economics
Dorothy Capra	NESCOE
Dave Cavanaugh	Energy New England
Digaunto Chatterjee	Eversource Energy
Ray Coxe	Mosaic Energy Insights for Brookfield
Fabio Dallorto	ISO New England Inc.
Ben D'Antonio	NESCOE
Liz Delaney	Environmental Defense Fund
Jeff Fenn	Emera Maine
Brian Forshaw	CMEEC
Bill Fowler	Exelon
Steve Garwood	New Hampshire Transmission
Julia Grasse	NGV
Eric Jacobi	FERC
Steve Judd	ISO New England Inc.
Tom Kaslow	FirstLight Power
Steve Kirk	Exelon
Rich Kowalski	ISO New England Inc.
Abby Krich	Boreas Renewables
Michael Kuser	RTO Insider
Marc Lyons	ISO New England Inc.
Tim Martin	New England Power
Brent Oberlin	ISO New England Inc.
Marianne Perben	ISO New England Inc.
Paul Peterson	Synapse Economics
Dan Pierpont	CPV Towantic
Michael Purdie	Dominion Energy
Joe Rossignoli	New England Power
Alex Rost	ISO New England
Jose Rotger	Cross Sound Cable Company
Melissa Scott	New England Power
Carissa Sedlacek	ISO New England Inc.
Bob Stein	HQUS/PSEG/NRG/Footprint
Brian Thomson	Massachusetts Wholesale Electric Company

Pradip Vijayan	ISO New England Inc.
Peter Wong	ISO New England Inc.
Jinlin Zhang	ISO New England Inc.

Item 1.0 – Chairs Remarks

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

In addition, Mr. Bernard commented that on Friday, May 17th, the ISO intended to post the draft Boston 2028 Needs Assessment report with accompanying notification and updates to the Boston 2028 Needs Assessment PAC presentation presented on April 25th. Unfortunately, the draft Boston 2028 Needs Assessment report was omitted from the posted materials last Friday and was posted to the PAC section of the ISO external website yesterday. Due to this delay, the deadline for the ISO to receive stakeholder comments for the draft Boston 2028 Needs Assessment report has been extended from June 2nd to June 5th.

In regards to the PAC notification that was posted on Friday, May 17th.

1. Stability analysis will not be included the Boston 2028 Needs Assessment addendum (Boston NA Addendum) or subsequent update in the fall.

2. Once the operational study is completed to evaluate the impact of the retirement of Mystic 8 and 9 on system restoration plans, any needs will be communicated in the Boston NA Addendum. Due to the confidentiality of the system restoration plan under the ISO-NE Information Policy, the ISO will only be able to report the size and location of the needed reactive device. Any needs identified through the Boston NA Addendum will be considered non-time-sensitive needs since the retirement date of Mystic 8 and 9 is beyond the three-year time-sensitive period. It is anticipated the Boston NA Addendum will be posted in Q2 or Q3 this year.

3. Since non-time-sensitive needs have been identified and it is anticipated that the Competitive Solution Process will commence in late 2019, all QTPSs interested in participating in the Boston request for proposal (RFP) for competitively developed transmission solutions, should begin to develop solutions to address the needs. Any effort devoted now to the creation of solutions will greatly assist in meeting future RFP submission deadlines.

As a reminder, the next PAC meeting entitled "Grid Transformation" will take place on Thursday, May 23rd at the Doubletree Hotel in Westborough.

Item 2.0 – 2019 Economic Study Draft Scope of Work and High Level Assumptions

Ms. Marianne Perben (ISO-NE) reviewed the 2019 Economic Study Draft Scope of Work and High Level Assumptions.

Q – Did the Anbaric study request have a specific time duration in regards to battery storage resources?
A – That is still under discussion but initial thoughts are a 4-hour baseline but that is still to be determined.
Comment – Anbaric has a sensitivity case and NESCOE also wants to add some sensitivities as well.
Q – On the Anbaric request, the retirements that are being shown are on the coastline. Is that too much of an easy observation to integrate the wind scenarios?
A – There is a tremendous amount of potential interconnection space in New England and Anbaric does not believe that will be an issue.
Comment - The more likely resource retirements would be in MA versus CT or ME.
Q - Will the model take into account potential congestion if all the wind is running at the same time?
A – ISO will review all potential transfer capability issues.
Q - If the wind resources show up earlier than 2030, it will suppress prices and may lead to additional retirements. Is there a way to take that into account as part of the analysis?
A – The net load is flat. ISO is factoring in several thousand of MWs of retirements in the analysis.
Q - On slide 5, you do not show MWs by location. Will you be adding that?
A - It will be part of next steps.
Q - Will the MWs injected at multiple points or a single point?
A – For the lower amounts of MWs, it will be a single location. For larger amounts of MWs, ISO plans to model at multiple locations.
Q - Will we see the capacity factors for the individual units?
A - We will show by resource type.
Q - Will the base case have Vineyard Wind and Revolution Wind included?
A - There is some amount of Revolution Wind included in the base case.
Q - Will ISO include any competitive solicitations for Boston?
A – ISO will take that back for discussion to see if the study timing lines up.
Comment – You should take into account the emissions pricing in the study.
Q - What are the assumptions for New Brunswick (NB)?
A – We will model NB with historical transfers on the ties.

Q - In regards to HVDC transfers out of Maine. At what point do the transfers become unreasonable?
A – ISO is not reviewing what transmission upgrades are reasonable. We are looking at production costs.
Q – Will ISO be including all existing generators and those with approved PPAs and will there be a limit on the dispatch of gas only resources due to fuel security issues?
A – ISO will model existing generators and those with approved PPAs at their SCC, reduced for forced outages.
Q - Do the studies include the Maine Cluster study?
A - They do not. The Maine Cluster resources are currently in the queue with no approved PPAs.
Q - In regards to the fuel prices, will ISO you take into account monthly variations?
A – The study will account for monthly variation in fuel pricing.
Q - Does the production cost model account for operating reserve constraints?
A – ISO will include operating reserves in the model.
Comment – The operating reserves should factor in the new Chapter 3 model.
Q - Why is the New York imports set at 0?
A – ISO will take that back for discussion.
Comment – ISO should consult with some of the wind manufacturers do help with the wind profile development.
Comment – There are studies that show vehicle charging during peak hours (roughly 20 – 30%). I'm not sure that only factoring in 100% charging at night is fully accurate.
Comment - Why doesn't ISO price renewables at $0 because they would still run at $0 due to REC credits.
Q - How will ISO curtail the on-shore and off-shore wind? ProRata?
A – ISO will take that back for additional review and discussion.
Q - Will negative pricing be accounted for when there is oversupply?
A - This study is about production costs, not bidding behavior.
Q - Will the operating reserve values change as you increase the MW penetration?
A - ISO will take that back for discussion.

Item 3.0 – New Hampshire 2029 Needs Assessment Details

Ms. Jinlin Zhang (ISO-NE) provided an overview of the New Hampshire 2029 Needs Assessment Details.

Q - What is the purpose of the sensitivities?
A – To provide additional information but the sensitives do not drive needs.
Q – Will the NECEC contract increase the North/South transfers?
A – ISO has included the contract as part of the Needs Assessment study and found it will not increase the North/South transfers.

Item 4.0 – Representative ICR and Projected New England Operable Capacity Analysis

Mr. Peter Wong (ISO-NE) provided an overview of the Representative ICR and Projected New England Operable Capacity Analysis.

Q - What is the difference between the actual and representative net ICR requirements?
A - The use of the 2018 versus 2019 load forecast.
Q - How did you develop the representative net ICR?
A - ISO used the 2019 CELT forecast as the base values as used the cleared resources in FCA 13 as well as the updated load values.
Q - Is the 1.2 first contingency loss value in the tariff?
A – No the 1.2 values comes from OP 8.
Q – IS New England moving from a summer peaking system to a winter peaking system?
A – The ISO is looking into the areas of demand side resources and we will be reviewing the results. ISO also plans to review the impact of heat pumps, electric vehicles, solar and wind resources and the shifting of the load shape.

Planning Advisory Committee meeting adjourned at 2:55 PM

Respectively submitted

Marc Lyons
Secretary, Planning Advisory Committee