Planning Advisory Committee Doubletree Hotel, Westborough, MA May 19, 2016

New England Power Company
New England Power Generators Association
Maine Public Utilities Commission
Central Maine Power Company
Eversource Energy
NESCOE
NRG Power Marketing
Mosaic Energy Insights for Brookfield
Conservation Law Foundation
NESCOE
Dominion Energy Marketing
Eversource Energy
ISO New England Inc.
Dartmouth
Emera Maine
Maine Public Utilities Commission
Quanta Technologies
Exelon
ISO New England Inc.
PSEG
New England Power Company
ISO New England Inc.
Massachusetts Municipal Wholesale Electric Company
Customized Energy Solutions
Synapse Energy Economics
ISO New England Inc.
GDF Suez
LIPA
ISO New England Inc.
ISO New England Inc.
Boreas Renewables
ISO New England Inc.
CMEEC
Vermont Public Utilities Commission
Massachusetts Department of Public Utilities
Central Maine Power Company
ISO New England Inc.
ISO New England Inc.
ISO New England Inc.
Synapse Energy Economics
Massachusetts Attorney General Office
Vermont Electric Power Company
ISO New England Inc.
Emera Energy
Day Pitney
Energy New England
HQUS/PSEG/NRG/Footprint
Massachusetts Wholesale Electric Company
Massachusetts Wholesale Electric Company ISO New England Inc. ISO New England Inc.

Item 1 – Chair's Remarks

Mr. Don Gates welcomed the committee and reviewed the day's agenda.

<u>Item 2 – Methodology for Base Case Assumptions – Follow Up</u>

Mr. Marianne Perben (ISO) provided an overview of the Methodology for Base Case Assumptions – Follow Up.

- Q On slide 10, is this gross load or net load?
- A Gross load
- *Q Are the curves developed through a Monte Carlo program?*
- A No it is not, it is a probability curve.
- Q How do you look at the expectation of generation outages as part of the curve?
- A We base it on the historic outage rate of the generation in the area.
- *Q Have you factored imports on the ties into Connecticut?*
- A Not at this time but we will consider imports later.
- Q Are you basing the load probability from the CELT report? How do you factor in a peak day load?
- A We are using the values from the CELT and peak loads are accounted for within the probability curve.

Comment – We should represent actual peak load versus CELT peak loads. Also, think about a potential shift in the times of peak loads and shortage events.

Comment – The forced outage rates could be revised when Pay for Performance goes into effect. That could cause a change in the calculation methodology.

Comment – You should look at the shoulder month's maintenance outage periods and you factor a risk assessment.

Comment – I do not believe that ISO has made the case for the use of the 5.4 E-05 value.

Q - How does this discussion pertain to interconnection studies?

A – We don't conduct needs assessments in the same way as we develop interconnection studies. But it's something we can look at going forward.

Several stakeholders expressed appreciation for ISO's efforts on this topic.

There were several clarification questions on the meaning of the various probability curves as well as how those curves were derived, that were responded to by Ms. Perben and Mr. Rich Kowalski (ISO).

<u>Item 3 – 2016 Economic Study Scope of Work</u>

Mr. Mike Henderson (ISO) provided an overview of the 2016 Economic Study Scope of Work – Scenario Analysis.

Q – What additional sensitivities will occur in Phase II of the study?

A – Inter-hour ramping and simulated FCM clearing prices to name a few examples.

Comment – I don't see the need for exclusive use of natural gas combined cycle resources as the base unit for generator replacement of retiring resources or to meet projected ICR as part of scenario 1.

Q - Should we consider additional storage as part of scenario 3?

A – There is a lot of storage assumed in scenario 3 but what if there is more generation than storage. That is why we need to consider prioritizing the order of generation cuts such as the imports, solar, wind, etc...

Q – *Does GridView do negative pricing?*

A-I do not believe so. We assume bids are incremental threshold price and we will start cutting resources when pricing falls below \$5.

Comment – I believe we will need to use nameplate MWs for Maine wind in order to understand the size of the transmission build out in the area.

Q – Why aren't you using the ISO existing wind data versus computer simulated wind data?

A – We are using a 2006 load shape as a base line and the recent existing wind data does not go back that far and we need to use the computer simulated wind data form 2006 to match our 2006 load shape.

Q – Are there any assumptions on the amount of MWs associated with the PEVs being studied?

A - I can find that out and present it at the next PAC meeting.

Planning Advisory Committee meeting adjourned at 2:30 PM

Respectively submitted

Marc Lyons Secretary, Planning Advisory Committee