

**Planning Advisory Committee  
 Doubletree Hotel, Westborough, MA  
 May 16, 2012**

Syed Ahmed	National Grid
Ben Axelman	Citizens Energy Corp.
Mark Babula	ISO New England Inc.
Jeff Bentz	NESCOE
Curt Beveridge	Central Maine Power Company
Chris Bernard	Northeast Utilities System Company
Christian Bilcheck	United Illuminating Company, The
Jon Black	ISO New England Inc.
Marcia Bloomberg	ISO New England Inc.
Roger Borghesani	The Energy Consortium
Cal Bowie	Northeast Utilities Service Company
Dorothy Capra	NESCOE
Gary Cole	NESCOE
Wayne Coste	ISO New England Inc.
Ray Coxe	Mosaic Energy Insights
Greg Cunningham	Conservation Law foundation
Fernando DaSilva	NextEra Energy
Jack Elder	Levitan & Associates
Frank Ettori	Vermont Electric Company
Jeff Fenn	Bangor Hydro Electric Company
Kevin Flynn	ISO New England Inc.
Thomas Foley	ISO New England Inc.
Bill Fowler	Exelon
Don Gates	ISO New England Inc.
Mike Henderson	ISO New England Inc.
Mike Henry	Environmental Northeast
Jim Hyland	Massachusetts Municipal Wholesale Electric Company
Sarah Jackson	Synapse
Jeff Jones	Bangor Hydro
Robert Keen	Robert Keen
Pat Kelly	Massachusetts AG
Bill Killgoar	Long Island Power Authority
Steven Kirk	Constellation Energy Commodities
Bill Lamkin	Massachusetts DEP
Jessica Lau	ISO New England Inc.
Paul Lopes	Massachusetts DOER
Marc Lyons	ISO New England Inc.
Bruce McKinnon	Connecticut Municipal Electric Energy Cooperative
Hans Mertens	Vermont DPS
Tim Morrissey	Dominion Power
John Moskal	United States Environmental Protection Agency
Beth Nagusky	Environmental Northeast
Rose Ann Pelletier	Massachusetts Department of Public Utilities
Michael Perrone	Connecticut Siting Council
Paul Peterson	New Hampshire Office of Consumer Advocate
Chris Plecs	Northeast Utilities Service Company
Francis Pullaro	Renew
Caryn Rexrode	Customized Energy Solutions
Jose Rotger	ESAI Power, LLC for Cross-Sound Cable Company, LLC
Jim Ryan	New England Power Company

Lou Sahlu	Massachusetts DOER
Bill Short	Freedom Energy
Patricio Silva	ISO New England Inc.
John Simonelli	ISO New England
Allison Smith	NESCOE
Philip Smith	GenOn
Joe Staszowski	Northeast Utilities System Companies
Bob Stein	HQUS
Veronica Szczerkowski	Connecticut DEEP
Gene Taddeo	Northeast Utilities System Companies
Jeff Turcotte	ISO New England Inc.
Nick Ucci	Rhode Island Public Utilities Commission
Carol Wendel	ISO New England Inc.
Mariah Winkler	ISO New England Inc.

### **Administrative**

Mr. Mike Henderson welcomed the committee to today's meeting and reviewed the agenda for May 16 and 17 in addition to the upcoming PAC meeting schedule for the remainder of 2012. Mr. Henderson reviewed the 2011 Economic Study schedule and the 2012 Economic Study Requests. The committee was advised of various postings that are available for review to include the 2012 CELT Report and the 2012 RSP Load Forecast. The committee was briefed regarding the PAC and Strategic Planning Initiative. Mr. Henderson announced that the 2012 EAG teleconferences are scheduled for June 8, October 19, and November 30, 2012. The next IPSAC meetings are scheduled for June 29 and July 16. An EIPC update was provided. Phase 2 of the project is underway and on schedule for completion by mid 2012. The next Transmission Operations Task Force meeting is scheduled for May 15-16.

### **Questions/Comments (PAC in Italics, presenter in Roman)**

#### **Item 2 – Draft Scope of Work for 2012 Economic Studies**

Mr. Wayne Coste (ISO) reviewed the Draft Scope of Work for the 2012 Economic Studies and discussed project background and objectives. Mr. Coste reviewed the Synapse request for low carbon electricity futures that included retirement of coal and oil resources, integration of renewable resources and energy efficiency state goals. He also reviewed the End User Alliance request on how the grid will be impacted if one or more of the fleet nuclear resources are retired regarding pricing, congestion, tie line usage, fuel diversity and emissions issues. A draft scope of work was presented that included both incremental/decremental curves and specific scenarios.

*Q – Can all coal and oil be replaced with renewables and energy efficiency? There are no gas resources in the mix?*

A – We will look on how we can meet our capacity requirements and gas resources could be part of that mix. This will be investigated as part of the economic study.

*Q – What year will be used for the End User Alliance study?*

A – 2021 will be the base year, but information can be obtained for other years using the incremental/decremental curves.

*Comment – It may be more beneficial to do the study either three or seven years out. It should be looked at a near term, intermediate term and long term basis.*

*Q – Slide 11, these studies will be based on the 2012 CELT?*

*A – Yes*

*Q – Does low carbon include natural gas?*

*A – We are not ruling the gas resources out but we will be looking at a lot of carbon free resources.*

*Comment – I believe you should consider using the capacity factor of the generating resources versus the name plate rating of the resource.*

*Q – Is there a case to be made for uniform loading instead of point loading on the external interfaces?*

*A – We are looking at load changes and resource additions and deletions using RSP areas and interfaces. We are evaluating the impact on interface loadings. External interfaces would be modeled consistently with 2011 Economic Study models.*

*Comment – Beginning in June, DR will be able to offer into the DA market. This should be considered instead of just evaluating DR on the peak load days in the summer. An assumption should be made for DR use across all months instead of summer peak months.*

*A – That would be difficult to accomplish for the purposes of this study because the pilot project will not commence until June 1, 2012 and meaningful inferences for the future may not be possible. However, we can look into this further and perhaps model it as a “dummy” generator that models production with price.*

*Comment – On Slide 27, Smart Grid should be characterized as price responsive demand as the term “Smart Grid” is hard to define as a single term.*

*A – We will work with stakeholders to represent the effect that “Smart Grid” and CHP has on loads.*

*Comment - The EISPC assumptions should be used in the studies versus the RPS assumptions.*

*Q – What is the timeline for completion of the Economic Studies?*

*A – We hope to have it completed by the end of the year.*

### **Item 3 – Fuel Diversity in New England**

Mr. Mark Babula (ISO) provided an overview of the fuel diversity issues in New England. Mr. Babula reviewed system capacity and energy production, provided a 2011/2012 operational review in addition to a fuel supply and infrastructure update and various fuel diversity issues and studies.

*Q – Are there still issues with the gas lines not being able to supply all the generators this summer?*

*A – There are some issues with the Tennessee pipeline in NY and the Algonquin line. There is roughly a 2% to 4 % reduction in gas availability for summer.*

*Comment – There are a lot of solar resources that are not being accounted for as they are behind the meter. Somehow this should be factored into the fuel diversity values.*

*Comment – CHP resources should be added into the above observation.*

*A – We will take this back and investigate where the values are derived from that are used in the CELT.*

*Q - Could you discuss the impact of the upcoming Canaport LNG outage and its effect on the recent LNG issues in the NEMA/Boston area?*

*A – We will take that back for review and determine if we can expand on some of the potential impacts at a later date.*

*Q – Why aren't imports used as part of the fuel diversity mix? In particular, the hydro imports from Canada.*

A – We are focused on the generation within our own foot print but we can take that back for additional consideration.

*Comment - The issue of fuel switching should be addressed.*

A – This is addressed within the upcoming gas study.

#### **Item 4 – Environmental Regulations and Issues**

Mr. Patricio Silva (ISO) reviewed the latest environmental regulations and issues and their impacts to the New England power grid.

*Q – Are there any impacts from the EPA rules on natural gas generation?*

A – There is some impact in the CT area based on the ozone standards.

Additional clarifying questions were asked and responded to by Mr. Silva.

#### **Item 5 – 2010 ISO-NE Electric Generator Air Emissions Report & Marginal Emissions Analysis Pilot Program**

Ms. Jessica Lau (ISO) provided a review of the 2010 ISO-NE Electric Generator Air Emissions Report & Marginal Emissions Analysis Pilot Program. Ms. Lau provided a topic background and summary of the 2010 Emissions Report.

Various clarifying questions were asked and responded to by Ms. Lau.

#### **Item 6 – New Renewable Resources in the Queue and RPS Outlook**

Mr. Jon Black (ISO) provided an overview of the new renewable resources in the ISO-NE queue and an RSP outlook.

Various clarifying questions were asked and responded to by Mr. Black and Mr. Henderson

#### **Item 7 – Solar Energy Update**

Mr. Jon Black (ISO) provided an update regarding the status and trends of solar energy growth in New England and summarized the potential for increased solar penetration in the region and discussed ways that increased solar PV could impact ISO planning and operations.

*Q – How will the ISO use behind the meter PV in Planning. Will it reduce load in the long term.*

A – The potential future amounts of PV discussed in this presentation are ISO's attempt to preliminarily characterize the potential growth of PV in the region over the planning horizon, and are based on a survey of currently existing state goals and funding that could spur this growth. While ISO will continue to track the growth of this resource and its potential impacts on planning and operations, ISO currently has no specific plans on how/whether the potential growth of PV will be used for long-term planning purposes.

*Q – Will ISO be evaluating the emissions benefits of solar as penetration increases?*

A – This will be looked at further.

*Q – What is the capacity factor for solar?*

A – Roughly a 13% annual capacity factor in New England.

*Comment – On slide 9, you determined that 15% of the PV resources are in the market. Is the NEPOOL GIS system a potential resource to determine which resources are getting Renewable Energy Certificates (RECs) that are not in the queue. Is there a baseline for PV not in the queue?*

A – The NEPOOLGIS system does track resources not in our queue. We will investigate that further.

**Item 8 – Wind Power Update**

Mr. Jon Black (ISO) provided an update regarding the status and trends of wind energy growth in New England and ISO’s wind integration activities, particularly the centralized wind power forecasting system that is currently being developed.

No questions were asked by the committee on this topic.

**Item 9 – Overview of New England Smart Grid Initiatives – Mike Henderson**

Mr. Mike Henderson (ISO) briefed the committee regarding the New England Smart Grid initiatives. Mr. Henderson reviewed the Federal policy drives behind smart grid, smart grid progress within New England, and how smart grid could impact New England in the future.

No questions were asked by the committee on this topic.

**The PAC meeting adjourned at 4:35 p.m.**