

**Planning Advisory Committee  
 Doubletree Hotel, Westborough, MA  
 March 28, 2016**

Farhad Aminpour	Massachusetts DOER
Lauren Austin	Patriot Renewables
Dwayne Basler	United Illuminating Company
Harry Benson	Eversource Wind Holdings
Brad Bentley	Eversource Energy
Denis Bergeron	Maine Public Utilities Commission
Joe Staszowski	Eversource Energy
Brad Swalwell	Tangent Energy
Curt Beveridge	Central Maine Power Company
Cal Bowie	Eversource Energy
John Brodbeck	EDP Renewables
David Burnham	Eversource Energy
Dorothy Capra	NESCOE
Rick Conant	RLC Engineering
Stephen Conant	Anabarcic
Dave Conroy	Central Maine Power Company
Wayne Coste	ISO New England Inc.
Ray Coxe	Mosaic Energy Insights
Ben D'Antonio	NESCOE
Chris Dall	Calpine
Stacy Dimou	Emera Maine
Stan Doe	ISO New England Inc.
Paul Dumais	Central Maine Power Company
Jeff Fenn	Emera Maine
Lisa Fink	Maine Public Utilities Commission
Dan Fitzgerald	APEX Clean Energy
Kevin Fougere	Quanta Technologies
Bill Fowler	Exelon
Marc Gagne	ISO New England Inc.
Michelle Gardner	NextEra
Steve Garwood	New Hampshire Transmission
Don Gates	ISO New England Inc.
Mike Giaimo	ISO New England Inc.
Monica Gonzalez	ISO New England Inc.
Brian Hayduk	New England Power Company
Mike Henderson	ISO New England Inc.
Jim Hyland	Massachusetts Wholesale Electric Company
Alex Jarvis	Calpine
Seth Kaplin	EDP Renewables
Tom Kaslow	GDF Suez
Bruce Kay	ISO New England Inc.
John Keene	Sun Edison
Bill Killgoar	LIPA
Rich Kowalski	ISO New England Inc.
Abby Krich	Boreas Renewables
Jessica Lau	ISO New England Inc.
Marc Lyons	ISO New England Inc.
Tim Martin	New England Power Company
Al McBride	ISO New England Inc.
Bruce McKinnon	CMEEC
Ed McNamara	Vermont Public Utilities Commission
Mary Menino	Massachusetts Department of Public Utilities
John Moskal	US EPA
Susan Muller	Boreas Renewables

John Novello	Wagner Forrest
Brent Oberlin	ISO New England Inc.
Sloboday Pajic	GE Energy Consulting
Marianne Perben	ISO New England Inc.
Parker Powell	GE Renewable Energy
Hantz Presume	Vermont Electric Power Company
Francis Pullaro	Renew Northeast
Jose Rotger	Cross Sound Cable Company
Cheryl Ruell	ISO New England Inc.
Eric Runge	Day Pitney
Carissa Sedlacek	ISO New England Inc.
Phil Smith	Energy New England
Bob Stein	NRG/PSEG/HQUS/Footprint
Joe Staszowski	Eversource Energy
Brad Swalwell	Tangent Energy
Veronica Szczerkowski	Connecticut Department of Public Utilities
Phil Tatro	EIG for Maine Green Line
Alan Trotta	United Illuminating Company
Randy Voges	GE Renewable Energy
Helen Wang	ISO New England Inc.
Paul Williamson	APEX Clean Energy
Wayne Whittier	RLC Engineering
Peter Wong	ISO New England Inc.

**Item 1 – Chair’s Remarks**

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

**Item 2 – New Generation Interconnection Backlog in Maine – Phase II**

**Survey of Clustering Approaches**

Mr. Bruce Kay (ISO) provided an overview regarding Survey of Clustering Approaches.

*Q – Should those who have experience with these process, should we speak up immediately or wait until the end of the presentation?*

A – Please speak up if you have feedback that can assist in clarification of the presentation and processes.

*Q – Do the groups within the cluster have a choice of being studied or not?*

A – It is the interconnection project sponsor decision on when to withdraw from the study but they do not have a choice to be included or not when the study begins.

*Q – What is an “attachment facility?”*

A – Generation lead connecting the resource to the transmission grid.

*Q - What is the criteria to enter the “class year” on slide 12?*

A - Meeting the entry requirements and approval by an operating committee. It is basically a permitting milestone process.

*Q - Do you get rights for transmission (other than capacity) as part of the final clustering study results?*

A – We did not focus on that aspect within this presentation.

*Q - Do you know how much of the dollars that have exceeded the cost cap in CAISO have been allocated to rate payers? Does this happen often?*

*A - I am not sure but we can take that back for additional investigation.*

*Q - What percentage of IR's proceed through a cluster/group study in the other ISO's?*

*A - I can't recall.*

*Q - Does our tariff today allow for cluster studies?*

*A - It does have one provision that gives us the ability to do the studies. What it does not state is how to do it nor how the costs should be allocated. It will require a modification of the OATT to define those steps.*

*Q - For the next meeting on this topic, could we focus on best practices from the other ISO that perhaps we could have as a starting point for our possible implementation?*

*A - We are looking for the stakeholders to provide feedback from what is working and what is not based on your experiences in other control areas regarding clustering.*

*Q - Can you give us sense for how long the cluster studies are taking in other areas?*

*A - I can follow up with that question in May but I recall that the cluster studies in NY and/or PJM have taken up to 5 to 7 years based on the several restudies that have needed to be performed when one or more of the clustering project sponsors drop out of the study.*

### **Strategic Transmission Analysis – Infrastructure in Maine**

Mr. Al McBride (ISO) provided an overview of Strategic Transmission Analysis – Infrastructure in Maine.

*Q - We are finding a constraint with the Maine Voltage sag is based on BPS testing or extreme contingency testing and reducing the BPS standards for other substations and equipment south of Maine?*

*A - That is correct.*

*Comment - On slide 7, the resource total should reflect 8100 MWs instead of the 7700 MWs as stated on the slide.*

*Comment - If we allow ETUs outside of the queue to come to fruitions, perhaps many of these Maine issues would resolve themselves.*

*Q - Have you looked at the cost and feasibility study comparison between an AC transmission solution and a DC transmission solution?*

*A - We have not at this time. We are looking at a ways to resolve the overall resource integration issues in Maine and the best and quickest way to ease the queue back log.*

*Comment - ISO is performing a minimum interconnection study within the load zone and not expand the transmission solution to get to the load pockets? This seems short sighted as you will not reach the full deliverability of the resources in question.*

*A - We will take that back for additional discussion.*

*Q - How are you going to treat ETUs as part of this study review?*

A – We are just beginning the scope of work for this project. Once it is completed, we will have a better idea of what could resolve the problems, to include a review of some of the existing ETUs in the system.

*Comment – Add 600 MWs of generation into Orrington coming from down east queue resources would be helpful to the study.*

*Q – Where does this study fall in the tariff? How do we implement any of the study solutions as the most likely outcome would be ETU's?*

A – This type of study is covered under Attachment K in regards to performance issues. The solutions will be part of interconnection upgrades.

### **Item 3 – 2015 Economic Studies**

#### **Off-Shore Wind**

Ms. Helen Wang (ISO) provided an overview of the 2015 Economic Study regarding Off Shore Wind.

*Q – What power curve did you used to determine the capacity factor?*

A – The NREL data set.

*Q – Have you taken into account the production costs of the wind resources when you factored in the cost savings?*

A – The production costs of wind units is \$0.00. We did not take into account LSE expenses.

*Q – How much is New England willing to put on the line to assist these resources from coming into the New England markets?*

A – That is a question for the states per their policies and stakeholders.

*Q – Will there be any further analysis of this report?*

A – There is much more detailed information in the report appendices.

#### **On-Shore Wind**

Ms. Jessica Lau (ISO) provided an overview of the 2015 Economic Study regarding On Shore Wind.

*Q – Today it shows no congestion north of Orrington. Why can't existing wind resources in that area get capacity credits?*

A – The minimum interconnection standards and overlapping impacts test differ from the economic production cost outcome.

#### **Keene Road**

Mr. Wayne Coste (ISO) provided an overview of the 2015 Economic Study regarding Keene Road.

*Q - What else is behind the Keene Road export interface besides wind?*

A - It's stated on slide 5.

Q – *Will the final report have the comparisons with the first study run to this one?*

A – No we were not prepared make that comparison.

Planning Advisory Committee meeting adjourned at 4:10 PM

Respectively submitted

Marc Lyons  
Secretary, Planning Advisory Committee