

To: NECPUC

From: Carolyn O'Connor

Date: November 23, 2010

Subject: Update on Recent and Upcoming Regional Activities

This memo is prepared by ISO's External Affairs Department to provide an update on several regional activities that may be of interest to the States. For your convenience, when appropriate, I have identified dates when key discussions and votes are scheduled to occur at upcoming stakeholder meetings, as well as planned filings.

There is also a section highlighting upcoming ISO speaking engagements and meetings that may be of interest.

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Issues and Updates

Rhode Island Seeks Adoption of Ocean Management Plan

On October 19, the Rhode Island Coastal Resources Management Council (CRMC)¹ approved the Rhode Island Special Area Management Plan (SAMP) – a first-in-the-nation plan to map and zone state and federal coastal waters to determine the best locations for off-shore wind projects. The SAMP is unique from other ocean management plans (such as Massachusetts' [Ocean Management Plan](#)) in that it studies both state and federal waters.

Background and SAMP Details

In 2007, Rhode Island's Office of Energy Resources determined that investment in off-shore wind projects is necessary to achieve Governor Carcieri's goal of obtaining 15% of its electrical power from wind.

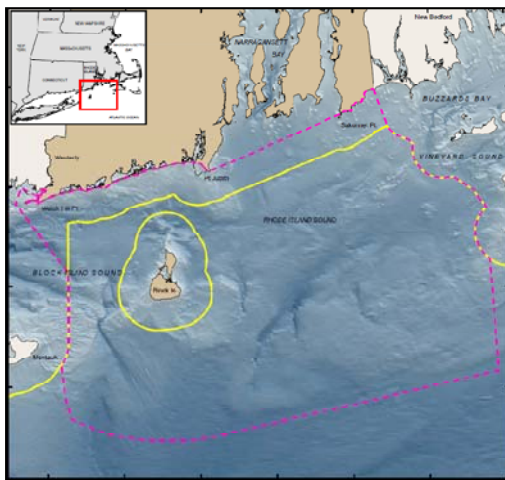


Figure 1 – Rhode Island Special Area Management Plan Area. Pink line denotes SAMP area; yellow line denotes state and federal waters separation.

The SAMP provides a “comprehensive understanding of the complex and rich ecosystem of the state’s off-shore resource” and includes “enforceable policies and recommendations to guide CRMC in promoting ... the development and protection of Rhode Island’s ocean resources.”² The plan covers topics including ecology, global climate change, cultural and historical resources, fisheries, recreation and tourism, marine transportation, navigation and infrastructure, renewable energy and other off-shore development.

The SAMP study area is 1,467 square miles and includes portions of Block Island Sound, Rhode Island Sound and the Atlantic Ocean. The study area begins 500 feet from the coastline in state waters, from the mouth of

Narragansett Bay, and includes all federal waters within the boundary. The study area abuts the state waters of Massachusetts, Connecticut and New York.

The plan established new regulations for state coastal waters and identified an area off Block Island as an ideal spot for a renewable energy project. This recommendation is expected to help steer approval of a project proposed by Deepwater Wind to construct eight turbines off Block Island. The SAMP also suggests a site in federal waters suitable for a larger project.³ Federal agencies (including the

¹ The Coastal Resources Management Council is responsible for the planning and management of the resources of the state's coastal region. The Council is charged with identifying the state's coastal resources and formulating plans and programs for the management of each resource, identifying permitted uses, locations, and protection measures. Rhode Island has delegated authority to the CRMC to administer land and water use regulations to fulfill its responsibilities under the Federal Coastal Zone Management Act. For more information on the CRMC, please go to <http://www.crmc.ri.gov/index.html>.

² “Governor Carcieri Recognizes Completion of First-in-the-Nation Ocean Special Area Management Plan.” October 22, 2010. <http://www.ri.gov/press/view/12444>.

³ In 2008, Rhode Island selected Deepwater Wind to be the preferred developer to build a commercial wind project consisting of 100 turbines in federal waters. The smaller project of eight turbines in state waters is already in progress as the developer recently signed a power purchase agreement with National Grid to purchase the project's energy output. The projects have applied to the [ISO's Generation Interconnection Queue](#) and are actively under study.

Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE) which has permitting authority for all renewable energy projects in federal waters) have raised issues about sections of the plan that pertain to their jurisdiction. Regardless of these concerns, state and federal officials have commented that the SAMP can be a model for other coastal states.

The SAMP will be submitted to the Rhode Island Secretary of State for state waters adoption and to the National Oceanic and Atmospheric Administration. The CRMC will also file the plan with the Federal Energy Regulatory Commission and the BOEMRE.

Shared Interest

Recognizing mutual economic and environmental benefits, the governors of Massachusetts and Rhode Island signed a 10-year [Memorandum of Understanding](#) (MOU) to explore the potential development of off-shore wind energy in an area of federal waters adjacent to the two states. This area includes 400 square miles of federal waters beginning 12 miles southwest of Martha's Vineyard and extending 20 miles westward into Rhode Island Sound – and is referred to as an “area of mutual interest” (AMI). The MOU calls for the SAMP to be the governing, planning and assessment document for the AMI.

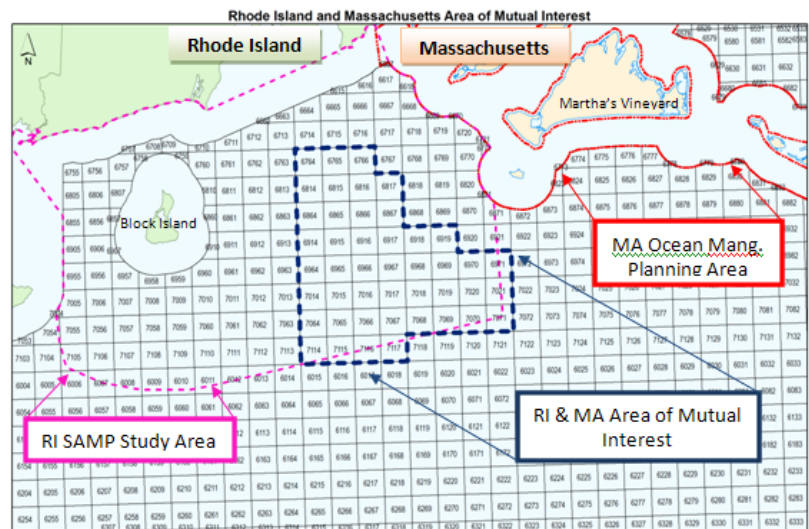


Figure 2 - RI & MA Area of Mutual Interest – area subject of MOU

The states have agreed to coordinate and collaborate in the permitting and development of off-shore wind energy projects in the AMI. This collaboration will include planning, environmental review, permitting, leasing and assessing operational impacts of projects in the AMI, as well as working together to expedite the federal permitting process for such projects.

Additionally, the states will collaborate on an economic development study that identifies the costs and benefits of off-shore wind development in the AMI.

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MA DPU Approves National Grid and Cape Wind Contract

On Monday, November 22, the Massachusetts Department of Public Utilities [approved](#) a 15-year Power Purchase Agreement (PPA) between National Grid and Cape Wind. The PPA calls for National Grid to purchase half of Cape Wind's output starting at 18.7¢/kWh in 2013 and rising

The Rhode Island Public Utilities Commission approved the PPA for the smaller project in August. The Attorney General, the Conservation Law Foundation and two Rhode Island manufacturers filed appeals with the Supreme Court to have the contract overturned. The Supreme Court is expected to consider the appeals in 2011.

3.5 percent annually through 2028. National Grid also has the right to a one-time extension of the contract for an additional 10 years.

The order concluded that the PPA met the DPU's standard for long-term contracts under Section 83 of the [Green Communities Act](#), as well as the Department's "public interest" standard.

The DPU also determined that the costs of the contract are outweighed by the benefits, namely "assisting National Grid and the Commonwealth to comply with the state's renewable energy and greenhouse gas emissions reduction requirements; providing National Grid the option to extend the contract beyond 15 years at a price that covers the remaining costs of operating the facility plus a reasonable rate of return; enhancing electricity reliability in the state; moderating system peak load; and creating additional employment."⁴

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New England East–West Solution Interstate Reliability Project: Updated Needs Assessment

The following update provides background on the need for the transmission projects that make up the New England East–West Solution (NEEWS) and summarizes the updated needs assessment for the Interstate Reliability Project component of NEEWS. The updated needs assessment was recently presented to New England stakeholders at the Planning Advisory Committee (PAC).

Background

As early as 2004, the ISO identified reliability concerns in southern New England and in 2005 formed a working group with Northeast Utilities and National Grid to evaluate system needs in the 2009 timeframe and beyond. This became known as the Southern New England Transmission Reinforcement (SNETR) analysis. The ISO presented an initial problem statement to the PAC in 2005 and in 2006 identified detailed system needs, preliminary transmission alternatives, and the feasibility of generic generation alternatives.

Reliability Problems

SNETR analysis identified limited transfer capability to move power across the New England East–West Interface. For the problems in the east (Rhode Island and Southeast Massachusetts), the SNETR analysis identified overloads on the 115 kV system, concerns for loss of 345 kV lines serving Rhode Island, and the criticality of a substation in Massachusetts on the New England East–West Interface.

For the problems in the west (Connecticut and Western Massachusetts), the analysis identified potential resource deficiencies in Connecticut, restrictions on generation along the CT–RI border, transmission security violations in moving power into and within Connecticut, and overloads on the 115 kV system in the Greater Springfield area related to power flows between the Ludlow (MA) and North Bloomfield (CT) substations. The analysis showed that problems initially identified for the 2009 timeframe became worse in 2012 and 2016 with load growth. The analysis also revealed interdependencies of the various needs and potential solutions.

The goal of the SNETR analysis was to develop a long-term (10-year), coordinated, multi-state plan to satisfy reliability criteria established by the North American Electric Reliability Corporation (NERC),

⁴ See "[Department of Public Utilities Approves Contract for Offshore Wind Power](#)," November 22, 2010.

the Northeast Power Coordinating Council (NPCC), and ISO New England. The objectives of the plan were to increase inter-area (i.e., New England East–West, Connecticut import, and Connecticut East–West) transfer capabilities, address resource deficiencies, and eliminate thermal and voltage violations within the 10-year planning horizon.

Four NEEWS Projects

The New England East–West Solution emerged as an integrated set of four projects to solve the problems identified in the SNETR analysis:

1. Interstate Reliability Project
2. Greater Springfield Reliability Project (GSRP)
3. Rhode Island Reliability Project (RIRP), and
4. Central Connecticut Reliability Project (CCRP).

What's changed since the original study?

As part of the ongoing planning process, the ISO updates the need for transmission projects based on certain changes in system conditions. Changes in the load forecast and the entry of new resources through the Forward Capacity Market (FCM) led the ISO to reassess the need for the NEEWS projects. In 2009, the ISO confirmed that these two changes did not affect the need for the GSRP and RIRP and these two NEEWS projects subsequently received state siting approval.⁵ The CCRP remains under study by the ISO.

For the Interstate project reassessment, the ISO conducted an extensive review and analysis of load-serving capability, resource restrictions, and other issues spanning broad geographic areas encompassing eastern and western New England.

The ISO's 2010 load forecast is *lower* than projections for the initial 2005 study (primarily due to the economic recession), but it is still *higher* than the critical load level identified in the original NEEWS needs assessment. The load forecast is net of reductions from passive demand resources. New resources were obtained through FCM, notably in Connecticut, but did not eliminate the need for the Interstate project.

Power flows are limited across the region

This re-assessment shows that power flows are limited east to west and west to east in New England, in part, because there are only three 345 kV transmission lines that connect these two large areas.⁶ East–west and west–east flows are further restricted by transmission constraints in the CT–MA–RI (“Greater Rhode Island”) corridor. See Figure 3 (right). (The re-assessment points out that several resources proposed in this corridor failed to qualify

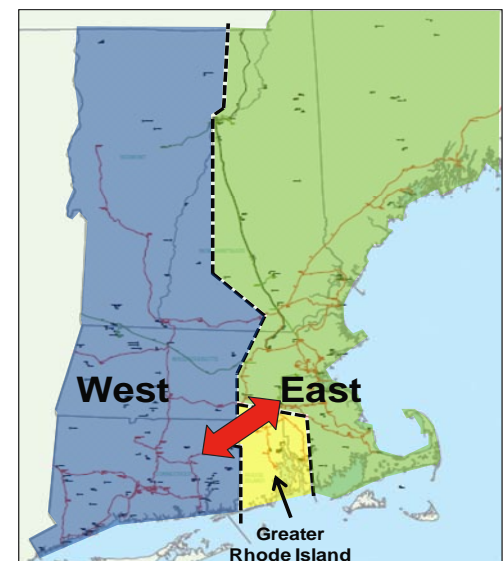


Figure 3 - East-West Interface & Greater RI Corridor

⁵ The Rhode Island Energy Facility Siting Board approved the RIRP in August. (In order to meet Rhode Island's continuing load-serving requirements, the ISO determined that a portion of the Interstate project must be built regardless of system changes that have occurred since the original NEEWS needs assessment. The ISO identified this need in the RI siting proceeding.) The Connecticut Siting Council and Massachusetts Energy Facilities Siting Board approved the Greater Springfield Reliability Project in March and September, respectively.

⁶ There are other limits on power flows in New England, which are not included in the scope of this study.

for the FCM due to transmission constraints).

Findings

The updated needs assessment shows widespread transmission line overloads in the 2015 and 2020 timeframes and that eastern and western New England are projected to have inadequate resources and transmission to reliably serve load within the 10-year planning horizon. An integrated regional transmission solution is needed to resolve transmission planning criteria violations and reliably serve load in eastern and western New England, Rhode Island and Connecticut.

Potential Solutions

Load-serving requirements could be met by adding (FCM) qualified resources in both eastern and western New England, or by developing a transmission solution that increases the transfer capability across eastern and western New England and maximizes the use of existing resources.

The ISO presented a detailed review of the updated needs assessment for the NEEWS Interstate Reliability Project at the August 12 PAC meeting and a high-level summary of the need at the November 16 PAC. The preferred solution will be presented by the transmission owners at the November 30 PAC.

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Tie Benefits Update

The NEPOOL Reliability Committee (RC) began discussion November 2 of ISO's proposed market rules to change the methodology for calculating tie benefits, and voted to continue to evaluate a potential alternative to the ISO proposal. The discussions are scheduled to continue on December 1 at the RC. The final proposal is expected to go to the Participants Committee for action before ISO files changes with the FERC by year end.

ISO proposes to calculate tie benefits assuming the system is "at criteria" (i.e., has just enough resources to meet reliability standards) for each primary Forward Capacity Auction (FCA) and annual reconfiguration auction (ARA).

An alternative approach that is supported by NEPOOL would assume the system is "at criteria" for the primary auction through the second ARA, and assume the system is "as is" (i.e., some external regions may have excess capacity beyond what they need to meet reliability standards) for the final ARA. The alternative proposal also would impose a cap on tie benefits, which seeks to address concerns raised by ISO that tie benefits identified in planning studies may not be fully available to support New England under actual operating conditions.

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Planning Advisory Committee Update

New England Wind Integration Study

ISO New England and GE Energy presented the final results of the New England Wind Integration Study (NEWIS) to the PAC on November 16. The posted [NEWIS materials](#) include an ISO summary of the report, an ISO presentation on the background, scope and scenarios evaluated in the study, and a GE Energy presentation on the study results. The ISO anticipates

posting the final GE Energy report in December and holding further discussions with the PAC thereafter.

Upcoming Meetings

The PAC is scheduled to meet on November 30 and December 16. These upcoming meetings will take place at the DoubleTree Hotel in Westborough, MA, from 9:30 a.m. to approximately 4:30 p.m.

The preliminary agenda for the November 30 meeting and topics for the December 16 meeting are listed below.

November 30

Preliminary Agenda

- 9:30 Administrative
- 10:00 Review NEEWS Interstate Reliability Project Needs – Q&A
- 11:00 Proposed NEEWS IRP Solution Alternative – Planning
- 12:00 Lunch
- 12:45 Proposed NEEWS IRP Solution Alternative – Physical
- 3:00 NH/VT N-1-1 Needs Assessment
- 4:30 Adjourn

Materials for this meeting will be posted [here](#).

December 16

Topics

- Energy Efficiency in planning
- Greater Boston Preferred Solution

Other PAC Related Information

- The final [2010 Regional System Plan](#) is now posted on the ISO Web site.
- The first PAC meeting of 2011 is scheduled for January 19.

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FERC NOPR on Integration of Variable Energy Resources

On November 18, FERC announced a Notice of Proposed Rulemaking (NOPR) relative to the [integration of variable energy resources](#) to the electric grid. FERC cited a growing number of proposals to interconnect variable energy resources, such as wind and solar, to the electric grid as justification for the NOPR.

In a [press release](#), FERC Chairman Jon Wellinghoff said the proposal will help to cost-effectively integrate variable energy resources into the grid.⁷ The NOPR would require transmission providers to offer an option to schedule transmission service on a more frequent basis (every 15 minutes instead of hourly), which FERC says will provide more accuracy in scheduling and mitigate the amount of ancillary services needed to accommodate these resources.

⁷ See also <http://www.ferc.gov/media/statements-speeches/wellinghoff/2010/11-18-10-wellinghoff-E-2.asp>.

The NOPR would require variable energy resources to provide meteorological and operational data to transmission providers, such as ISOs, and encourages transmission providers with variable energy resources on their systems to implement power production forecasting, which are two of the key recommendations in the New England Wind Integration Study.

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U.S. Department of Energy Meetings

Spectrum Policies & Smart Grid Technologies

The U.S. Department of Energy (DOE) will hold a public meeting on December 8, 2010, from 2 p.m. to 4:30 p.m.⁸ At this meeting, senior officials from the Federal Communications Commission and the Commerce Department's National Telecommunications and Information Administration will provide an overview designed for the utility sector of the current spectrum management process. They will also address some of the federal programs currently available to ensure priority restoration and priority calling for utilities during times of emergency.

This meeting is the result of a DOE report entitled – “*Communications Requirements of Smart Grid Technologies*.” One recommendation in the report is to provide more information to the utility sector on spectrum policy issues in light of the role wireless communications will play in the deployment of smart grid technologies. The complete text of the report, and of a second report addressing data access and privacy issues arising from the deployment of smart grid technologies can be found [here](#).

This meeting is open to the public, but DOE is requesting that those interested in attending should contact Katharine Dickerson at 202–586–5281 or by emailing Katharine.Dickerson@hq.doe.gov.

Briefing on Nuclear Power

Dr. Peter Lyons, Acting Assistant Secretary, Office of Nuclear Energy, U.S. Department of Energy, is tentatively scheduled to provide a briefing on nuclear power to the NEPOOL Reliability Committee on December 15, from 9:30 a.m. to 10:30 a.m. The DOE presentation will be posted in advance with the [meeting materials](#) for December 15. Dial-in capability will be listed on the RC [agenda](#) when it is posted prior to the meeting.

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CLG Update

The Consumer Liaison Group (CLG) will meet on December 9 at the Colonnade Hotel in Boston, Massachusetts. FERC Commissioner, [Marc Spitzer](#) will be the guest speaker. Additionally, there will be a presentation on the [2010 Regional System Plan](#) and representatives from the region's transmission companies will be discussing NERC compliance, transmission projects for renewable resource integration, and the TO's five-year forecast for Regional Network Service. To register for this meeting, please click [here](#).

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⁸ The public meeting will be held at the U.S. Department of Energy, Forrestal Building, Room GH-019, 1000 Independence Avenue, SW., Washington, DC 20585-0121.

Financial Assurance Policy

The ISO's Financial Assurance Policy (FAP) provides a credit review process to assess the ability of a market participant to pay for service transactions. This process also serves to protect participants from the risk of non-payment by other participants. This section provides a brief update on recent FAP developments.

On October 27, the FERC issued an [Order](#) accepting a compliance filing submitted by ISO and NEPOOL on September 24. This compliance filing was in response to an [Order](#) from the FERC dated July 15 in which some proposed changes to the FAP and the Billing Policy were accepted and some rejected. (See the [August](#) NECPUC memo for a summary of those earlier amendments).

The October Order approved the following modifications to the FAP:

- *Change Unsecured Credit Maximum Caps for Qualifying Customers*
 - Municipal Participants; Unrated Non-Municipal Participants; and Unrated Non-Market Participant Transmission customers:
 - \$25 million Market Credit Limit & \$25 million Transmission Credit Limit
 - Qualifying Rated Non-Municipal Participant; and Rated Non-Market Participant Transmission Customers:
 - \$50 million Market Credit Limit & \$75 million Transmission Credit Limit
 - Aggregate limit (Market plus Transmission) not to exceed \$75 million
- *Eliminate Use of Unsecured Credit to Cover Financial Transmission Rights Requirements*
 - In response to the October 27 Order, additional language was added to completely eliminate the use of unsecured credit for FTRs.

All of the changes to the FAP and Billing Policy are expected to become effective in January 2011.

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Massachusetts Proposes Biomass Rules

On September 27, the Massachusetts Department of Energy Resources (DOER) proposed [regulations](#) that will govern the amount of Renewable Energy Credits (RECs) that forest product biomass generating units are eligible to receive under the state's Class I Renewable Portfolio Standard. The value of these RECs is a key element in determining the economic viability of certain biomass plants.

The proposed regulation limits the types of fuel that will be eligible to receive RECs and establishes efficiency criteria for forest product biomass units. The regulations establish a strict limit of no more than 15% of all forest products harvested by weight can be considered eligible biomass fuel. In order to receive full REC benefits, DOER has proposed efficiency standard of 60% with a sliding scale for partial REC benefits for units operating at levels beginning with 40% efficiency. The proposed regulation requires for qualification that a unit demonstrate a reduction of life-cycle greenhouse gas emissions of at least 50% over 20 years compared to natural gas combined cycle electric generation.

DOER held two public meetings on these proposed regulations and accepted [comments](#) until October 21. The final rule is expected to be published by the end of 2010.

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Regional Network Load Cost Report Released

Last month, ISO New England released the *Regional Network Load Cost Report*. This comprehensive report (available [here](#)) was created at the request of various stakeholders and provides historical average costs for serving regional network load through the Open-Access Transmission Tariff in the New England wholesale markets for the past five years (2005-2009).

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Wholesale Electric Costs Fall in October 2010

The average Day-Ahead and Real-Time Hub prices in October were under \$36/MWh – significantly below September 2010 prices. Last month’s average Day-Ahead and Real Time Hub prices are also below October 2009 levels.

The low prices experienced in October 2010 were due in part to declines in natural gas prices.

	October 2010	October 2010 Compared to September 2010	October 2010 Compared to October 2009
Average Day-Ahead LMP (hub)	\$35.97/MWh	- 20%	- 8%
Average Real-Time LMP (hub)	\$35.18/MWh	- 26%	- 12%
Average Natural Gas Price	\$3.78 MMBtu	- 11%	- 14%
Peak Real-Time Load	18,274 MWh	- 29%	+5%
Average Real-Time Load	13,372 MW	- 10%	+ 1%

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ISO Speaking Engagements and Other Meetings of Interest

December 1, 2010

NPCC Annual Meeting of Members and 2010 General Meeting, Albany, NY

For more information and to register, please see the NPCC [web site](#).

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December 2, 2010

Massachusetts Smart Grid Innovators Collaborative: New England Smart Grid Conference, Marlborough, MA

For more information and to register, please see the MASGIC [web site](#).

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December 7, 2010

New Hampshire Business & Industry Association Annual Energy Conference, Concord, NH

ISO: Speaker: Robert Laurita, Manager, Market Design

For more information and to register, please see the BIA-NH [web site](#).

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December 9, 2010

Consumer Liaison Group Meeting, Boston, MA

For more information and to register, please see [ISO calendar](#).

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December 14, 2010

Consumer Liaison Group Outreach Meeting at CBIA, Hartford, CT

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December 17, 2010

Massachusetts Restructuring Roundtable, Boston, MA

ISO Speaker: Robert Ethier, Vice President, Market Development (Tentative)

For more information and to register, please see [web site](#).

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Upcoming NEPOOL and ISO Meetings of Interest

Dates for upcoming stakeholder meetings and other meetings of interest (dates are subject to change):

	Participants Committee	Markets Committee	Reliability Committee	Planning Advisory Committee	Transmission Committee	NECPUC Conference Call	Consumer Advocate Conference Call
November				30			
December	10	7, 8	1, 15	16	2	14	21

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