

To: NECPUC
From: Carolyn O'Connor
Date: January 31, 2012
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 issues and activities that may be of interest to you. For your convenience, when appropriate, I have identified dates when key discussions and votes are scheduled to occur at stakeholder meetings, as well as planned filings.

There are also sections highlighting upcoming ISO speaking engagements and meetings that may be of interest.

Issues and Updates

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ISO Speaking Engagements and NEPOOL and Other Meetings of Interest

FERC Issues Order on ISO's Order 745 Compliance Filing

Background - Order 745, Demand Response Compensation in Energy Market

On March 15, 2011, the Federal Energy Regulatory Commission (FERC) issued [Order 745](#) requiring that the ISO pay a demand response resource the market price for energy (i.e., the locational marginal price (LMP)) when it is capable of balancing supply and demand as an alternative to a generation resource. This practice must be deemed cost-effective as determined by a net benefits test.

On August 19, 2011, ISO submitted a [compliance filing](#) pursuant to Order 745 which included a two-stage implementation process – a transition period beginning in June 2012, evolving into full integration in future years.

Integrating demand resources into the energy market is complex and requires the implementation of new market and system operation functions that will treat demand reduction offers from demand resources the same as a supply offer from a generator. The complexity of this issue is part of the reason why the ISO proposed a transition period prior to full integration.

The ISO's proposal is structured so that when demand resources are capable of contributing to the balance of supply and demand, they will be eligible for energy market compensation at the full locational marginal price. When this occurs, both generation and demand resources will be dispatched to identify the optimal resources that minimize costs.

Transition Period Rule¹

The transition period rules include a requirement that demand reduction offers pass a net-benefit test. The transition rules also include a baseline methodology upon which reductions will be determined and cost allocation will be on a system-wide basis.

Fully-Integrated Rules²

As part of the fully integrated rules, demand response providers can submit demand reduction offers and operating parameters for both the day-ahead and real-time markets. Performance will be measured at the retail delivery point – the point at which the ISO observes the resource's contribution to balancing supply and demand. Costs associated with demand response compensation will be allocated proportionately to all entities with a real-time load obligation on a system-wide basis.

Order on ISO's Compliance Filing

On January 19, 2012, FERC issued an [Order](#) on the ISO's August compliance filing. In general, FERC approved the ISO's compliance filing on the transition and fully-integrated rules for implementing demand response participation and compensation in the energy market. Specifically, FERC approved the proposed net-benefit test and the measurement and verification rules. FERC also supported ISO's proposal for energy market payments to measure demand response from a customer's retail delivery point for those utilizing behind the meter generation.

The ISO proposal included a floor for demand response bidding in the energy market, however the Order requests that the ISO submit a filing to FEC by April 17 which justifies this part of the proposal or abandons the bid floor.

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¹ Transition period rules proposed effective date is June 1, 2012.

² Fully-Integrated rules initially had a proposed effective date of June 1, 2015 which was subsequently modified to a June 1, 2016 effective date.

FCA-6 Informational Filing

On January 3, 2012, the ISO filed its [informational filing](#) for the sixth Forward Capacity Auction (FCA-6) with FERC. The filing details the amount of megawatts (MW) that is needed to be procured as well as a list of resources that have qualified to participate in the auction. The auction must procure 33,456 MW to meet the Installed Capacity Requirement.³

Existing Capacity

36,257 MW of existing capacity qualified to participate in FCA-6. This includes 32,204 MW of generating capacity resources, 315 MW of import capacity, and 3,738 MW of demand resources.

New Capacity

154 new projects for a total of 2,474 MW qualified for FCA-6. These include 16 generating capacity resources (134 MW), 19 import capacity resources (1,820 MW), and 119 demand resources (521 MW).⁴

Rejected Resources

37 new resources seeking to participate in FCA-6 were not accepted, representing approximately 1,100 MW. The ISO performs a detailed analysis of each project to ascertain whether or not it meets all the necessary qualification criteria for FCA-6. This analysis includes, for example, a review of the interconnection of the resource and associated transmission upgrades necessary to achieve commercial operation by the relevant year for a generating resource. The project descriptions and measurement and verification plans for demand resources are also reviewed carefully. Rejected resources are detailed in the filing.

Capacity Zones

Similar to past auctions, the ISO will model two capacity zones in FCA-6: Maine and Rest-of-Pool. Neither Connecticut nor NEMA/Boston will be modeled as separate capacity zones because existing resources in these zones exceeded the Local Sourcing Requirements.

FCA-6 will commence April 2, 2012 to procure the resources needed for June 1, 2015 – May 31, 2016.

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FCM Re-Design for Seventh Auction Gains Industry Support

On December 9, 2011, the NEPOOL Participants Committee approved a motion to defer action on ISO New England's proposed Forward Capacity Market (FCM) Re-Design reforms for the seventh Forward Capacity Auction. The reforms the ISO proposed were a direct result of an April 13, 2011 FERC [Order](#) and included the elimination of the auction floor price, elimination of the use of CONE (Cost of New Entry), and the implementation of a new market power mitigation process.

NEPOOL and the states met frequently over the last two months and reached a consensus position on an alternative to the ISO's proposal. At the January 20 [Participants Committee meeting](#), over 90% of NEPOOL supported a motion to continue the rules in place for the sixth auction through the seventh auction with a modified Capacity Clearing Price Floor of \$3.15/kW-month and enhanced capacity zone modeling (such that Connecticut, NEMA/Boston, Maine and Rest of Pool will be modeled).

At the January 20 meeting, ISO stated that it can support this reform for a brief period so that discussions can be held to develop a long-term structure that has the support of regional stakeholders. Among other things, as part of these long-term capacity market reforms, NEPOOL is discussing pricing and mitigation

³ The *Installed Capacity Requirement* is the amount of resources (level of capacity) a balancing authority area needs to meet its resource adequacy planning criterion and when it needs these resources, according to the Northeast Power Coordinating Council resource adequacy criterion, A-2, *Basic Criteria for Design and Operation of Interconnected Power Systems*. This criterion states that the probability of disconnecting any firm load due to resource deficiencies must be, on average, less than once in 10 years.

⁴ Sum of individual amounts may not add up to the totals due to rounding.

principles and requiring the ISO to procure differentiated capacity products based on predefined attributes. (See [NEPOOL FCM Redesign Long-Term Framework Document](#)).

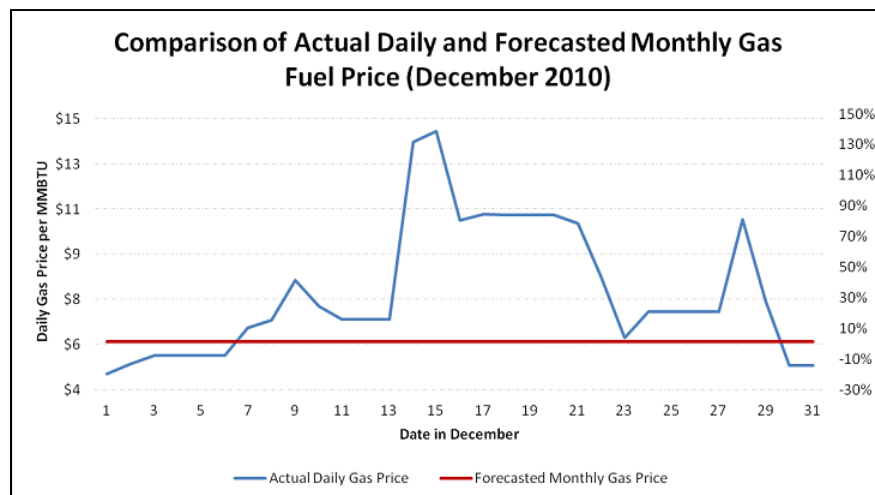
A joint NEPOOL and ISO filing to continue the capacity market rules in place for the sixth auction through the seventh auction with a \$3.15/kW-month floor and enhanced capacity zone modeling will go to FERC in late January/early February.

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FRM Threshold Price Modification Proposal Being Considered

In the [Forward Reserve Market](#) (FRM), in order for resources to provide reserves instead of being committed for energy, the resources must submit energy offers above a Forward Reserve Threshold Price. The Forward Reserve Threshold Price is calculated on a monthly basis, by multiplying the Forward Reserve Heat Rate for that Forward Reserve Procurement Period by the Monthly Forward Reserve Fuel Index.

The ISO believes that calculating the threshold price once a month does not capture intra-month fuel price volatility. Accordingly, the ISO is proposing that the Forward Reserve Threshold Price be calculated on a daily basis to better represent the volatility of the fuel prices. An illustration why a fuel index does not adequately represent price volatility is provided below.



Initial discussions relative to the ISO's FRM threshold price modifications were held during January's [Markets Committee](#). The committee will continue to have discussions at future monthly meetings.

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Semi-Annual Status Report on ISO's Load Response Programs

On December 30, 2011, the ISO filed its [18th Semi-Annual Status Report on Load Response Programs of ISO New England Inc](#) with FERC. The report covers the six-month period from April 2011 through September 2011. Among other things, this report summarizes load reductions and payments and details the estimated effects of the load response programs on wholesale prices.⁵

Load reductions and payments

From April 1, 2011 through September 30, 2011, there was more than 35,000 MWh of load response interruptions. The average payment for a MW of interruption across all zones in the region was just over

⁵ It is important to note that numbers in this report are subject to modification and resettlement.

\$90/MWh. Over \$3 million was paid for interruptions throughout the region over the six month period. Of all the MWh interrupted, almost half were in Maine.

Estimated effects of load response on wholesale prices

During the first three months of the reporting period, the load response program reduced real-time LMPs by approximately \$3.75/MWh across the entire wholesale market in New England.

During the latter three months, the program reduced real-time LMPs by approximately \$4.32/MWh across the entire market.

The Semi-Annual Report includes an estimate that during these 6 months, load response programs reduced LMPs totaling \$39 million in savings to load-serving entities in the region.

Interruptions and Payments for All Load Response Programs by Zone April 2011 through September 2011					
Zone	MWh Interrupted	% of MWh Interrupted throughout the Region	Payments	% of Total Payments Made for Interruptions throughout the Region	\$/MWh
ME	17,228	47%	\$1,626,774	49%	\$94
NH	1,603	4%	\$156,334	5%	\$98
VT	1,452	4%	\$126,902	4%	\$87
CT	2,943	8%	\$250,840	7%	\$85
RI	2,716	7%	\$230,861	7%	\$85
SEMA	2,148	6%	\$187,231	6%	\$87
WCMA	5,401	15%	\$484,652	14%	\$90
NEMA	3,234	9%	\$281,425	8%	\$87
Regional Total	36,724	100%	\$3,345,019	100%	\$91

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Planning Advisory Committee

The Planning Advisory Committee (PAC) is scheduled to meet February 15 at the Doubletree Hotel in Westborough, MA; March 14 at the Doubletree Hotel in *Milford*, MA; and March 15 at the *Sheraton* in *Framingham*, MA. (Please note the change of locations.) Meetings will begin at 9 a.m. Preliminary agendas follow.

Feb. 15 (Doubletree Hotel, Westborough, MA)

Preliminary Agenda

- Load Forecast
- Customer Service Survey Results
- Stakeholder process for submitting 2012 economic study requests
- Economic Study update

March 14 (Doubletree Hotel, *Milford*, MA)

Preliminary Agenda

- Strategic Transmission Analysis
- Regional System Plan Transmission Project List
- Final Greater Boston Solution
- Southwest Connecticut (SWCT) Minimum Load Needs and Preferred Solution

March 15 (*Sheraton*, *Framingham*, MA)

Preliminary Agenda

- State load forecast
- Energy Efficiency Forecast Update
- Maine Power Reliability Program (MPRP) Transfer Limits
- VT/NH needs and preferred solution

Save these dates:

- April 18
- May 16
- June 19
- July 18
- Aug. 9: draft RSP page-turn (Westborough)
- Sept. 13: RSP public meeting (Boston)

Meeting [materials](#) will be posted in advance of PAC meetings. Advanced registration is required. Please [register](#) online through the Calendar link on the ISO website: www.iso-ne.com. ISO has a new, more user-friendly online registration process for PAC meeting registration. Using the Calendar, simply click “Register for this meeting” on the date of the PAC meeting you plan to attend. (You no longer need to register through the ISO Training and Events Network, “ISO-TEN.”)

Please watch the *Agenda and Administrative Items* presentation posted for each meeting for updates on reports, correspondence, and other materials posted for the PAC. For a quick recap of the topics for past PAC meetings, please see the [PAC Agenda Summary](#) posted with the PAC meeting minutes.

ISO Reports and Studies

ISO’s External Affairs Department periodically updates a table of the major ISO studies underway in the areas of strategic planning and regional system planning. The latest update is available in the appendix to the December monthly issues [memo](#).

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Consumer Liaison Group

The first quarterly Consumer Liaison Group meeting of the year will be March 8 at the Doubletree Hotel in Milford, Massachusetts. The meeting will begin with lunch at noon.

The role of natural gas in New England’s electricity marketplace and other associated issues will be the topic of the meeting. Thomas M. Kiley, President of the Northeast Gas Association, will be the keynote speaker and former Massachusetts Department of Public Utilities Commissioner, Robert Keating, will serve as panel moderator. The ISO will also present on the [study](#) it commissioned ICF International to conduct on the availability of the region’s natural gas fleet to support generation resource needs through 2020.

To register for this meeting, please [click here](#).

Save these future CLG meeting dates (locations TBD):

- June 6
- September 24
- December 6

For more information on the Consumer Liaison Group, please click [here](#).

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Energy Efficiency Forecast Update

ISO New England created a methodology to generate a long-term energy efficiency (EE) forecast for the region based on state-sponsored EE programs. The goal is to equip transmission planners with longer-term information about the impacts of regional EE investments.

Data collection for the initial EE forecast is underway. On January 9, 2012, ISO hosted a webinar for

utility program administrators to explain the EE data gathering tool. The tool is designed to provide the ISO with information on specific EE programs administered by utility program administrators, especially the production cost of these programs – that is the cost per MWh savings.

ISO will hold the first meeting of the EE Forecast Working Group (EEFWG) on February 24, 2012. The EEFWG will be made up primarily of representatives of utility program administrators and state EE agencies. The meeting will provide the ISO with guidance on ratepayer funded EE programs, technology trends and associated changes in production costs, funding sources, and trends in prioritization of program implementation.

This meeting will be held at the ISO in Holyoke, MA. The EEFWG will be chaired by a representative of ISO New England, and will not be a formal NEPOOL committee or subcommittee. Meeting agendas and materials will be posted on the ISO website and advance notice will be provided to all interested parties.

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Wholesale Electricity Costs December 2011

The average Day-Ahead and Real-Time Hub prices in December 2011 were approximately \$36 and \$34/MWh respectively. These monthly average prices are lower than November 2011 and almost half of December 2010 levels when the average Day-Ahead and Real-Time LMP were in the mid-\$60

	December 2011	December 2011 Compared to November 2011	December 2011 Compared to December 2010
Average Day-Ahead LMP (hub)	\$35.85/MWh	-3%	-45%
Average Real-Time LMP (hub)	\$33.89/MWh	-12%	-46%
Average Natural Gas Price	\$4.14 MMBtu	5%	-49%
Peak Real-Time Load	19,341 MWh	9%	-6%
Average Real-Time Load	14,662 MW	9%	-6%

range. Similarly, the monthly average natural gas price for December 2011 was slightly above \$4/MMBtu which is almost half the \$8.06/MMBtu monthly average for December 2010.

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2012 Market Training Schedule

Each year, the ISO provides various training opportunities to familiarize stakeholders and market participants with New England's Wholesale Electric and Forward Capacity Markets. The instructor-led trainings are held at the Hotel Northampton in Northampton, MA and are taught by ISO New England Subject Matter Experts. Courses announced for 2012 are detailed below.

WEM 101, April 23 –27 and November 5-9

WEM 101, an Introduction to Wholesale Electricity Markets, is suggested for individuals who are new to the electricity industry and/or need a refresher course. The course provides an overview of the electric industry, ISO New England and its functions, features and components of the wholesale electricity markets, demand response, and settlements.

WEM 201, May 15-17

WEM 201 is considered an intermediate course and completion of WEM 101 is recommended before taking this upper level course. It covers topics such as Locational Marginal Pricing, Unit Commitment and Dispatch, Net Commitment Compensation Period, and Energy Reserve Co-optimization.

FCM 101, October 15-19 and December 3-7

This course provides a comprehensive understanding of the concepts and mechanics of the FCM and the Forward Capacity Auction.

Individuals associated with a state agency are eligible for a 50% discount on all ISO training courses. Advanced registration for courses is mandatory. To register for a course, please visit the [ISO's Training & Events Network](#) (ISO-TEN). ISO's External Affairs will inform the states and policymakers as more targeted training opportunities become available.

For a listing of all training opportunities, please [click here](#) (note: additional courses may be announced). [Course materials](#) are also available.

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U.S. Environmental Protection Agency Update

As discussed at the January 18 [PAC](#) meeting, the ISO has recently revised the amount of capacity estimated to be at risk due to U.S. EPA rules. In late 2011, ISO estimated that approximately 3.6 GW was at risk, in part due to the Mercury Air Toxics Standards (MATS). After a review of the final rule language, which includes some greater compliance flexibility and exempts limited use oil-fired units from compliance, the ISO is now estimating units at risk of retirement of less than 1GW by 2015.

In an effort to address reliability concerns that may accompany the MATS rule, the EPA's Office of Enforcement and Compliance Assurance issued a policy document outlining the process by which an Electric Generating Unit (EGU) may obtain additional time to comply with the MATS rule deadline. This enforcement policy may provide the possibility of another year on top of the 4-year timeframe established in the Clean Air Act to comply with MATS by means of an agreement that EPA may not enforce violations during this period. It is not anticipated that this mechanism, referred to as an Administrative Order (AO), will be utilized frequently, especially in New England. The AO would be available only to EGUs that are "required to run for reliability purposes that (A) would otherwise be deactivated; or (B) due to factors beyond the control of the owner/operator, have a delay in installation of controls or need to operate because another unit has had such a delay." If an EGU wishes to apply to the EPA for an AO, it must include a "written analysis of the reliability risk if the unit were not in operation, which demonstrates that operation of the unit after the MATS Compliance Date is critical to maintaining electric reliability..." and that the ISO should provide a "written concurrence with this analysis or a separate and equivalent analysis...."

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Smart Grid Update

ISO and the region's transmission owners are making progress implementing the Smart Grid Investment Grant from the U.S. Department of Energy. The goal of this project is the installation of about 40 phasor measurement units (PMUs or synchrophasors) as well as communications infrastructure across the transmission system. These PMUs will help the ISO better understand power flows. To date, 12 PMUs have been installed and are currently streaming test data to the ISO. This project is on schedule to be fully implemented by June, 2013.

The ISO, working closely with the transmission owners, recently submitted to the DOE a revised budget for this project. The revised budget has a total project cost of about \$15 million. This represents a reduction of approximately \$3 million from the original budget estimate of approximately \$18 million. The revised budget was submitted to reflect lower actual costs of PMUs than was originally estimated. There are no changes to the original scope of the PMU project.

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Federal Affairs Update

Energy Discussion in the State of the Union Address

On January 24, President Barack Obama delivered his 2012 [State of the Union](#) address, reiterating a number of priorities he has supported during his term in office. In remarks designed to appeal to a wide range of energy interests, the President called for an “all-out, all-of-the-above strategy” in the development of energy resources.

President Obama dedicated a significant portion of his energy discussion to the tremendous increase in domestic natural gas production, noting the U.S. has a potential natural gas supply estimated to last for nearly a century. Also on the topic of conventional fuels, President Obama noted the significant increase in domestic crude oil production during his term and pledged that his Administration will open offshore areas to oil and gas production to facilitate ongoing domestic production.

Calling on Congress to renew clean energy tax credits (the popular Production Tax Credit and Investment Tax Credit for renewable energy are set to expire at year’s end), the President voiced his continued support for emerging technologies in the renewable energy industry.

President Obama did acknowledge that a broad cap-and-trade climate change bill will not move through Congress in the coming year, but he again called for Congress to pass a Clean Energy Standard. In order to facilitate additional clean energy projects, he is directing his Administration to “allow the development of clean energy on enough public land to power three million homes.”

Future of Federal Renewable Energy Incentives

On January 1, the U.S. Treasury Department’s Section 1603 grant program (created through the 2009 American Recovery and Reinvestment Act) expired. Two key industry incentives, the Production Tax Credit (which provides a tax credit for renewable energy production on a kilowatt-hour basis) and the Investment Tax Credit, are set to expire at the end of 2012 and will be hotly debated by Congress this year.

An opportunity for supporters to extend the incentives will come in February when Congress debates extending the payroll tax cut, as that larger bill could be a vehicle for other tax priorities. Advocates will continue to highlight the successful growth in renewable energy resources, as well as their importance to environmental protection and energy independence. However, the aura surrounding previously unsuccessful federal renewable energy loans will be used by opponents as a reason to eliminate incentives for a number of energy initiatives during a time of budgetary shortfalls.

Depts. of Energy, Homeland Security Announce Cybersecurity Initiative

On January 5, the U.S. Departments of Energy and Homeland Security announced a new [cybersecurity initiative](#) with a goal of developing, deploying, and analyzing a cybersecurity risk management maturity model for the electricity sector. The agencies will work with appropriate members of the electricity industry (both subject matter experts and companies willing to pilot the project) in hopes of creating a “common tool that can be used to evaluate the cybersecurity posture of the electric sector.” The first phase of the project has already begun – development of a model that is designed by (and incorporates input from) key stakeholders. In April the pilot will be deployed and results analyzed to assess the success and shortcomings of the program. The model will then be changed to incorporate lessons learned, and accessible along with relevant program data.

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Court Decision on Vermont Yankee

On April 18, 2011, Entergy, the owner of the Vermont Yankee (VY) nuclear power station in Vernon, VT filed a law suit against the state of Vermont in federal district court challenging the validity of several

provisions of the state's statutes concerning the ability of the plant to run after its original operating license expires in March, 2012.⁶

In a [decision](#) issued on January 19, 2012, the court held in favor of Entergy. The judge ruled that provisions of Vermont state law that required approval of the legislature for issuance of a certificate of public good (CPG) and permission to store spent nuclear fuel were preempted by the federal Atomic Energy Act. In these rulings, the court permanently enjoined the state from taking actions to shut down VY after March, 2012 pursuant to these invalid state laws.

The court also held that Vermont cannot condition the issuance of a CPG on a requirement that Entergy enter into power purchase agreement (PPA) at below-wholesale market rates with Vermont utilities.

Next Steps

Entergy's existing CPG for VY expires on March 21, 2012. Entergy began the formal process to renew its CPG in 2009. The court did not preclude the Vermont Public Service Board from acting on Entergy's petition for a renewal of its CPG.

Governor Shumlin issued a brief statement saying that he would consult with Vermont's Attorney General to determine they will appeal this decision. The Department of Public Service asked the Public Service Board to renew their proceeding on the CPG after February 24, 2012.

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⁶ On March 10, 2011, the NRC approved VY's application for relicensing for 20 years (until 2032).

ISO Speaking Engagements and NEPOOL and Other Meetings of Interest

February 6-8, 2012

National Association of Regulatory Utility Commissioners Winter Meeting, Renaissance Hotel, Washington, DC. [Conference website](#).

February 8-9, 2012

National Electricity Forum, Renaissance Hotel, Washington, DC. (Panelists include ISO New England President & CEO Gordon van Welie.) [Forum website](#)

February 16, 2012

Northeast Energy & Commerce Association, Renewable Energy Conference, Westin Copley Place, Boston. [Conference website](#).

February 17, 2012

Restructuring Roundtable, Foley Hoag, Boston, MA. [Meeting information](#).

March 14, 2012

Connecticut Power & Energy Society Environmental Energy Conference, Cromwell, CT (Keynote speaker: ISO New England President & CEO Gordon van Welie). [Conference website](#).

March 16-17, 2012

MIT Energy Conference, Boston, MA. (Henry Yoshimura, Director, Demand Resource Strategy, ISO-NE, will be a panelist). [Conference website](#).

	Participants Committee	Markets Committee	Reliability Committee	Planning Advisory Committee	Transmission Committee	NECPUC Conference Call
Feb.	10	7, 8	14	15	28	13
Mar.	9	6, 7	13	14, 15	20	12

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