ISO new england

memo

To: NECPUC

From: Carolyn O'Connor

Date: September 30, 2011

Subject: Update on Recent and Upcoming Regional Activities

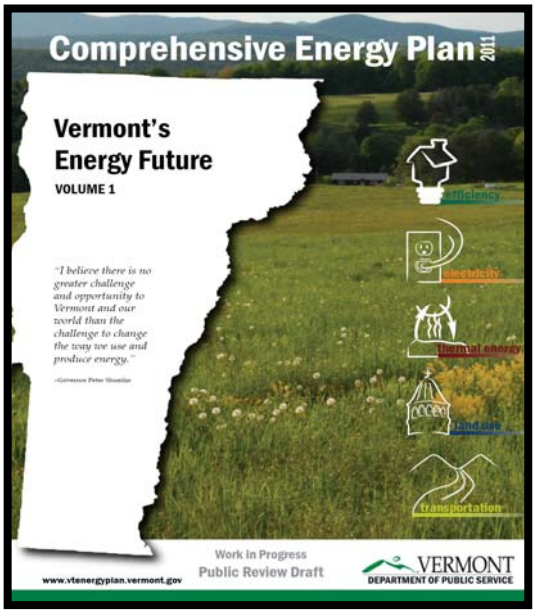
This memo is prepared by ISO's External Affairs Department to provide an update on several regional issues and activities that may be of interest to you. For your convenience, when appropriate, I have identified dates when key discussions and votes are scheduled to occur at stakeholder meetings, as well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

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

Issues and Updates

ISO New England Inc.
One Sullivan Road, Holyoke, MA 01040-2841
www.ISO New England.com T 413 535 4129 F 413 535 4379

Summary of Vermont's Draft Comprehensive Energy Plan 2011[1]



On September 13 and 14, the Vermont Department of Public Service (DPS) released its draft two-volume Comprehensive Energy Plan (CEP). The CEP focuses on all energy use including electricity, heating, transportation and land use.

Volume 1

The first volume contains a broad vision for Vermont's energy future and includes overarching strategies to achieve this vision, namely a goal of attaining 90% of its total energy needs from renewable sources by 2050. Efficiency and conservation are the foundations of the strategies laid out in Volume 1.

Strategies for the electricity sector include recommendations to:

- Adopt an aggressive renewable portfolio standard
- Expand the existing standard offer (feed-in tariff) program to include an additional 50 MW of small-scale "clean" distributed generation
- Enhance the regulatory system:
    - Create a position of renewable energy project development manager at the DPS
    - Require mandatory mediation for opposition to project development during siting
    - Simplify the permitting process for small & medium-scale projects
    - Review state agency overview of energy projects.

Strategies for transmission and the regional wholesale market include recommendations to:

- Continue focus on efficiency and peak load reduction to reduce Vermont's share of regional transmission projects
- Place "far greater focus" on participation and advocacy at ISO and FERC
- Revisit the mandate of the existing Vermont State Planning Committee
- Focus on reducing "inefficiencies" in neighboring regions and seek improvements in NY to PV20
- Pursue non-transmission alternatives wherever feasible.

Volume 2

The second volume of the CEP contains analysis and specific recommendations designed to meet the vision laid out in Volume 1. The report includes analysis of the electricity supply and demand in Vermont, including historical usage and a forecast of future demand, as well as scenario analysis for the 2012-2031 timeframe.

The three scenarios analyzed include:

[1] This summary is intended to provide a very high-level overview of some of the most relevant portions of the CEP, and does not contain a comprehensive review of the entire 368 page document and all of its recommendations.

1. No new demand-side management (DSM)
2. New incremental DSM in state throughout the plan period following the current DPS proposed budget
3. High renewables and hydro case: Includes all DSM in #2 above, and includes new renewable energy resources to reach the goal of meeting 75% of Vermont's energy use with renewables and hydropower.

An additional section describes potential resources to meet future demand. The focus is on increasing energy efficiency (EE) including a projection of future state spending on EE programs through the year 2031.

Included in the report as potential resources for Vermont are smart grid technologies and a variety of other renewable and non-renewable generating resources.

With regard to transmission, the CEP recommends that Vermont continue to focus on ensuring that existing regional transmission facilities and interconnections at Highgate, Derby Line, and elsewhere are as robust and reliable as possible.

A series of public hearings will be held on the CEP, and public comments may be submitted to DPS until October 10, 2011. The final plan is expected in November. Since several of the CEP's recommendations require legislative action, the timeframe for implementing the recommendations is unclear.

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Regional Greenhouse Gas Initiative (RGGI) Update

RGGI is a collaborative effort of ten states in the Northeast and mid-Atlantic regions to reduce overall CO_2 emissions. RGGI began full operation on January 1, 2009, becoming the first mandatory cap-and-trade program to limit CO_2emissions in the United States. Electric generators with more than 25 MW of capacity must acquire CO_2 allowances to cover their CO_2 emissions by the end of each control period. Under this agreement, power sector CO_2 emissions are capped at 188 million short tons per year through 2014.

During the 13th RGGI auction held on September 7, 2011:

- 7,487,000, or 17%, of the 42,189,685 current control period (2009-2011) CO_2 allowances were sold
- Auction clearing price was $1.89 per allowance, the minimum reserve price for the auction
- Electric generators and their corporate affiliates purchased 94 percent of the current control period allowances.

On September 19, RGGI held a stakeholder meeting to prepare for the 2012 program review. At this meeting, panelists discussed CO_2 allowance budgets and emissions forecasts; assumptions for future generation and emissions modeling; and methods to increase program flexibility.

A particular focus of the discussion was the disposition of unsold allowances and other potential ways to reduce the system-wide surplus of emission allowances.

There are currently unsold allowances for about 117 million tons of CO2 emissions. Participants also briefly discussed RGGI's method of forecasting load growth, which begins with load forecasts from ISO, NYISO and PJM, then assumes reductions resulting from state energy efficiency goals to lower those forecasts.

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Massachusetts Attorney General Coakley Addresses Consumer Liaison Group

On September 28, Massachusetts Attorney General Martha Coakley attended the Consumer Liaison Group (CLG) to discuss the importance of ratepayer advocacy and the challenge lawmakers and regulators are facing in developing renewable energy without a significant increase in electricity prices.

The Attorney General began her remarks noting that the work done by members and companies that comprise the CLG is vital for the region, even if the work does not make for catchy sound bites or grab headlines.

A consistent theme throughout Ms. Coakley's address was the need for a sensible energy policy that aims to be environmentally responsible while being cost-effective and mindful of the burden it may place on ratepayers. This may lead to disagreements among stakeholders, but an ongoing dialogue between sectors is crucial in order to achieve the most effective implementation of various policies (including the Green Communities Act in Massachusetts).

Specifically on ratepayer advocacy, the Attorney General noted that often consumers feel that energy-related problems are too complex or too large for them to understand (making ongoing transparency and outreach critical) and that the AG's office will be fair but aggressive in fighting for ratepayers. While an advocate for state renewable energy goals, as well as reasonable smart grid pilot projects, Ms. Coakley stated decision-makers need to do their homework and get people engaged in the debate. As an example, she mentioned the American Recovery and Reinvestment Act (the 2009 economic stimulus bill), which contained significant federal resources for weatherization programs. The Attorney General noted that there was little oversight on the disbursement of the weatherization dollars and it was important for the state to execute the program properly and effectively.

The Attorney General was asked a question about how to define "cost-effective" projects. She responded the answer will vary from state-to-state and project-to-project, but that short- and long-term benefits should be weighed and that information should be as transparent as possible. When discussing the possible disenfranchisement of consumers in the ratemaking process, Ms. Coakley noted that the administrative process is an important balance of achieving a fair result in a timely manner, and that the decision-making channels need to be clear, orderly, and move at a reasonable pace. The Attorney General also touched on the ongoing situation with the Vermont Yankee nuclear power plant, noting that the Massachusetts AG's office did not intervene in the case to close Vermont Yankee, rather to ensure the Nuclear Regulatory Commission was doing its job to ensure the safe operation of the plant.

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Creation of Connecticut's Integrated Resource Plan

The new Connecticut Department of Energy and Environmental Protection (DEEP) is developing its first integrated resource plan (IRP) as part of a reorganization of state agencies responsible for energy policy and planning. DEEP is expected to issue a draft plan in January for public comment before it delivers a final report to the legislature in March. In 2011, the legislature transferred responsibility for developing the plan to DEEP from the state's electric distribution companies (EDCs), Connecticut Light & Power and United Illuminating. The EDCs continue to support the process and the Brattle Group is performing economic modeling as it has done for prior IRPs.

The law requires DEEP to identify the state's energy and capacity needs in the three-, five- and ten-year time horizons and develop an integrated resource plan to procure resources to meet those needs. Resources could include conventional and renewable generating facilities, energy efficiency, load management, demand response, combined heat and power facilities, distributed generation and other emerging energy technologies. The IRP is intended to procure resources in a way that "minimizes the cost of such resources to customers over time and maximizes consumer benefits consistent with the state's environmental goals and standards." The 2011 energy legislation added a requirement that the IRP also "seek to lower the cost of electricity."

Several issues under consideration in the regional strategic planning initiative are being considered in the IRP, such as evaluating retirement and repowering of older fossil-fired generators, and renewable resource expansion scenarios.

DEEP held a week-long session of stakeholder meetings in September that focused on demand-side management, natural gas, transmission, environmental and renewable issues. DEEP invited ISO to brief the IRP team on several ISO studies and initiatives, including the scope of the pending natural-gas study, the pilot study of market resource alternative solutions (a.k.a. non-transmission solutions), and the 2010 New England Wind Integration Study.

Materials will be available on the 2012 IRP website.

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Regional System Plan 2011 Public Meeting

On September 8, ISO New England hosted its annual Regional System Plan public meeting, welcoming Federal Energy Regulatory Commissioner Cheryl LaFleur as the keynote speaker. Commissioner LaFleur's address was her first speech on Order 1000, a FERC directive aimed at guiding regional efforts to plan, build, and pay for transmission.

Commissioner LaFleur acknowledged that the question of where facilities are located will continue to be one of the thorniest issues in the development of transmission. She commended New England for its success in building transmission and its inclusive and transparent planning process. Commissioner LaFleur identified the Order 1000 requirement that ISO/RTOs consider public policy requirements in their transmission planning process as the directive most likely to impact New England, emphasizing that the goal is to have processes and practices that will effectively prioritize and build public policy projects.

Following Commissioner LeFleur, a number of influential regulators and stakeholders participated in two panel discussions on the impact of greater wind resources on the bulk electric system as well as how pending regulations from the U.S. Environmental Protection Agency (EPA) will impact New England's generation fleet.

A full list of panelists as well as the draft RSP (and summary presentation) can be found here.

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Federal Affairs Update

Congress Urges FERC to Examine Reliability Impact of EPA Regulations
On September 14, all five FERC Commissioners testified before a House Energy and Commerce Committee panel to discuss the potential impact of various EPA regulations on electric grid reliability. An

internal FERC analysis of generator retirements (concluding 81 GW of generation could be at risk for retirement) served as a primary topic of questioning throughout the hearing.

FERC Chairman John Wellinghoff pointed out that the study was conducted before many details of the actual EPA proposals were revealed, and it served as a starting point for discussions. He indicated that it is an incomplete study as it pertains to planning because national studies do not include detailed regional analysis. Chairman Wellinghoff explained that with the proper time, the electric industry can meet its reliability responsibilities without delaying the implementation of EPA regulations.

Commissioner Philip Moeller expressed concern with the upcoming regulations, noting in his testimony that he remains "concerned that the timeline for electric utility planning and implementation is not compatible with the EPA timelines for its new regulations." He also spoke at length about the likelihood of rising prices when a base-load fuel source is displaced.

Committee members also expressed the need for FERC to continue to consult with the EPA on grid reliability, electric system prices, and the potential for job loss as the regulations are implemented.

On September 19, the Ranking Member of the Senate Energy and Natural Resources Committee, Senator Lisa Murkowski (R-AK), responded to Chairman Wellinghoff's testimony in a letter directing FERC to initiate a formal analysis of future grid reliability, saying "unless and until such a process comes to an orderly conclusions, I will remain deeply concerned that reliability may be at risk."

Senator Murkowski expressed her concern with the lack of a structured analysis by the Commission and noted that "it is regrettable that, given [FERC staff's] preliminary analysis of a year ago, a formal process to assess the reliability impact of EPA's action has not been long since underway." In the letter, Senator Murkowski requested a response by September 30 to nine detailed questions, including information on how FERC plans to assess the impact of the EPA regulations on reliability.

Proposed DOE-FERC Transfer of Authority Draws Scrutiny
Recently, the U.S. Department of Energy (DOE) proposed transferring to FERC two of its responsibilities pertaining to periodic studies of electric grid congestion and identifying broad geographic corridors in need of transmission infrastructure. In the Energy Policy Act of 2005, Congress directed DOE to conduct congestion studies every three years (the last was completed in 2009) and identify areas suffering from significant congestion as National Interest Electric Transmission Corridors.

While recognizing DOE has the legal right to transfer these responsibilities in question, both the Chairman of the Senate Energy and Natural Resources Committee, Senator Jeff Bingaman (D-NM), and the National Association of Regulatory Utility Commissioners (NARUC) came out against the proposal.

In a letter to U.S. Secretary of Energy Steven Chu, Chairman Bingaman noted "the simple fact is that the States, rather than the [FERC], have always had exclusive, plenary jurisdiction over electric transmission siting, and Congress has been reluctant to transfer that authority to [FERC]." The Chairman noted Congress may still modify the 2005 energy bill to address siting, but it is the decision of Congress, and not the DOE, that should initiate the change.

In its letter to the Secretary, NARUC noted that "to the extent that this proposal is motivated by a desire to reduce barriers to transmission, it fails," and that it is the responsibility of states to site transmission infrastructure. Pointing out that the federal government already has several on-going initiatives to address siting concerns and alleviate congestion (including Order 1000 and the Eastern Interconnection Planning Collaborative), NARUC asks DOE to provide a "specific articulation of the problem the delegation intends to solve and how the delegation will solve the problem identified."

The New England States Committee on Electricity (NESCOE) also weighed in with its concerns.

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FCM Reform Schedule Update

On May 13, 2011, ISO New England submitted a compliance filing with a schedule for filing market rules in accordance with the April 13, 2011 Forward Capacity Market Paper Hearing Order. The ISO's May filing included a schedule with a plan to have revised capacity market rules approved and effective for the eighth capacity auction; however, the filing noted that the ISO would continue to analyze whether earlier implementation – in time for the seventh FCA – could be possible. Accordingly on August 22, the ISO provided a new schedule.

New Schedule
All of the revisions required by the April 13 Order will be implemented for the seventh FCA, except for modeling all eight energy zones in the capacity market. Only four zones will be modeled initially. The ISO will work with the appropriate NEPOOL technical committees to review the existing eight energy zones and identify the appropriate zones for capacity purposes. Implementation of the appropriate zonal configuration will follow after the completion of this process.

FCA-7 revisions include elimination of the auction floor price and the implementation of the new market power mitigation process.

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Ten-Minute Operating Reserve – Reserve Constraint Penalty Factor Discussions

ISO New England utilizes a joint co-optimization algorithm to serve the Real-Time Energy Market and to meet the real-time Operating Reserve requirement based on least-cost security constrained economic dispatch. Whenever a resource is dispatched out of merit in order to provide reserves, that resource usually incurs an opportunity cost (i.e., lost revenue) for not providing energy in the Real-Time Energy Market. The Real-Time Reserve Clearing Price is intended to reflect that opportunity cost.

The Reserve Constraint Penalty Factor (RCPF) serves as a price cap for each real-time reserve product. When the RCPF is set too low, the Real-Time Reserve Clearing Price can frequently reach the ceiling. This results in resources not receiving full compensation for their opportunity cost of providing reserves instead of energy. In those instances, the ISO has observed economic and operational inefficiencies.

The economic inefficiencies for having an RCPF set too low are demonstrated by having the Real-Time Reserve Clearing Prices not reflect the true higher cost for providing reserves, which in turn does not send the adequate price signal to the marketplace. By being undercompensated for providing reserves, resources have an economic incentive to not follow dispatch and provide reserves, but instead to provide energy in order to fully realize their opportunity cost.

This issue will be discussed at the upcoming Market Committee meeting in October.

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Planning Advisory Committee Update

October Meeting Cancelled

Please note that the originally scheduled October 27 Planning Advisory Committee (PAC) meeting has been cancelled.

November PAC Meetings
The next Planning Advisory Committee (PAC) is scheduled to meet November 16 in Westborough, Massachusetts, and November 17 in Marlborough, Massachusetts. Both November PAC meetings will begin at 9 a.m. The PAC is also scheduled to meet December 14 in Westborough, MA.

Preliminary November PAC Agendas:

November 16 (Westborough, MA)	November 17 (Marlborough, MA)
• **Regional System Plan Transmission Project List** • **Vermont/New Hampshire Preferred Solution** • **Energy Efficiency Update**	• Southwest Connecticut Preferred Solution • Auburn (MA) Needs and Alternatives • Auburn Cost Estimation and Controls • National Grid Transmission Facility Refurbishments • Transmission Owner Local System Plans o Bangor Hydro Electric o Central Maine Power o VELCO o NSTAR o Northeast Utilities

Advanced registration for all PAC meetings is required and is available on the ISO Calendar.

September 21 PAC Meeting Review
On September 21, the PAC met to hear from ISO New England on the scope of work and assumptions for the Strategic Transmission Analysis and receive an update on the ongoing 2011 Economic Studies.

The ISO also briefed stakeholders on upcoming changes to the neData Portal on the ISO's website. The portal is being redesigned to provide a customizable one-stop-shop for graphical views of real-time market and power system data. Stakeholders will be able to preview the new portal in November before it goes live in December.

The Strategic Transmission Analysis is a component of the broader regional Strategic Planning Initiative readying New England both for the retirement of older, fossil-fired generation resources and the integration of variable renewable energy located a greater distance from load centers. The study will examine the location and quantity of possible generator retirements and work to identify any resulting reliability concerns and challenges associated with bringing large-scale wind resources online. The study will use the 2010 economic study assumptions as a starting point for the analysis and will refine the conceptual transmission overlays developed for the 2009 study for the New England Governors' Renewable Energy Blueprint. The study will identify broad transmission system requirements to integrate large-scale wind resources and is not intended to provide a full interconnection analysis for each potential wind resource. The scope of work and assumptions are posted on the PAC website.

The 2011 Economic Study will evaluate a hypothetical system around the year 2016 that assumes the full build-out of wind projects in the June 2011 ISO generator interconnection queue, which are assumed to

be in service by 2016, and the full build-out of transmission projects in the Regional System Plan through 2016. Stakeholders requested using the 2016 timeframe to gain analysis of nearer-term system conditions (up to five years in the future) rather than the longer-term horizon of earlier economic studies (e.g., 2020 and 2030). The analysis will identify the levels at which transmission becomes binding on wind resources. The study also will illustrate the economic impact of the constraints and show the changes to those impacts if the constraints are eased. The ISO will initially focus on the Wyman-Bigelow area in western Maine because wind developers have identified transmission export limitations as an impediment to wind development in an area that otherwise has strong wind potential.

The scope of work and assumptions are posted on the PAC website.

Changes to CEII Process
Beginning October 17, the ISO will use a digital certificate system to provide stakeholders access to Critical Energy Infrastructure Information (CEII) on the Planning Advisory Committee and Reliability Committee websites. At that time, the ISO will disable all existing usernames and passwords used to access CEII.

Stakeholders who already are approved for CEII will have received an email advising them of the CEII digital certificate process. No further actions are required for those individuals.

Stakeholders who are **not already approved** for CEII need to contact ISO Customer Service for instructions for filling out necessary PAC CEII forms in order to access CEII materials. For questions, please contact ISO Customer Service by phone: (413) 540-4220, or email: custserv@ISO New England.com.

Please check the Agenda and Administrative Items file posted each month with PAC meeting materials. This file includes timely updates on ISO reports and studies and follow-up on stakeholder questions and comments submitted through the PAC.

The ISO plans to post the final 2011 Regional System Plan (RSP11) by November. A separate notice will be sent when the report is posted.

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Wholesale Electricity Costs August 2011[2]

The average Day-Ahead and Real-Time Hub prices in August 2011 were between $44 and $47/MWh – approximately 20% below July's monthly average. Similarly, August's average natural gas and oil prices were also down over July's monthly average.

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	August 2011	August 2011 Compared to July 2011	August 2011 Compared to August 2010
Average Day-Ahead LMP (hub)	$44.62/MWh	-19%	-19%
Average Real-Time LMP (hub)	$46.38/MWh	-20%	-18%
Average Natural Gas Price	$4.42/MMBtu	-15%	-9%
#6 Oil Price ($/MMBtu)	$17.79/MMBtu	-9	45%
Peak Real-Time Load	23,342 MWh	-16%	-4%
Average Real-Time Load	16,479 MW	-5%	0%

[2] Please note that information contained in this section is through August 25.

ISO Speaking Engagements and NEPOOL and Other Meetings of Interest

November 1, 2011

New York ISO/ISO New England Joint Symposium, Hilton New York City, New York, NY. (Panelists include ISO New England President & CEO Gordon van Welie). Register for Symposium here.

Details continue to emerge for the joint New York ISO/ISO New England energy symposium in New York City on Oct. 31-Nov. 1. In addition to keynote speaker Paul Browning, President and CEO of Thermal Products for GE Energy, speakers for the two afternoon panels on November 1 have been announced.

The first panel will explore competition in power markets and will include CEOs from ISO New England (Gordon van Welie), New York ISO (Stephen Whitley), Midwest ISO (John Bear), and IESO (Paul Murphy), as well as Anastasia Song, CEO of The Haugland Group, and Andy Ott, Senior VP, Markets, PJM Interconnection.

The second panel will focus on electric system innovation and empowering consumers, and will be moderated by Kevin Burke, CEO for ConEd. Joining Mr. Burke will be Gabriel Alonso, CEO, EDP Renewables North America; Bill Capp, CEO Beacon Power Corporation; Dan Delurey, Executive Director, Demand Response and Smart Grid Coalition; and John Kelly, Executive Director, Galvin Electricity Initiative. For full biographies of every speaker, and to register, please visit the conference's website.

November 3, 2011

NECA Annual Power Markets Conference, Doubletree Hotel, Westborough, MA (keynote speaker: ISO President & CEO Gordon van Welie)

November 3-4, 2011

New England-Canada Business Council Annual Energy Trade and Technology Conference, Seaport Hotel, Boston, MA (Panelist: John Norden, ISO New England Director of Operations)

May 20-22, 2012

Save the date: 2012 NECPUC Symposium, The Samoset, Rockport, ME

	Participants Committee	Markets Committee	Reliability Committee	Planning Advisory Committee	Transmission Committee	NECPUC Conference Call	Consumer Advocate Conference Call
Oct.	14	12, 13	19	-	17	11	17
Nov.	18	9, 10	15	16-17	12/1	4	21

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