



ISO New England Outlook

A wholesale electricity
industry update

January 2009

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What's Your Outlook?

ISO-NE Manager Defines Complexities and Opportunities for Integrating Demand and Renewable Resources into System and Market Operations

John Norden is the Manager of Renewable Resource Integration for ISO New England. He began working in this newly created position at the beginning of 2008. Norden's focus to date has been on integrating demand resources into power system and market operations, as well as integrating renewable resources, primarily wind. This year, Norden continues working on demand-resource integration issues and will spearhead a major wind integration study.



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Changes in Federal Administration and Congress May Mean Energy Advancements for New England

New England has put considerable time, effort, and resources into implementing cutting-edge energy policies and initiatives. The region's experience and progress in the energy sector, such as the development of renewable energy portfolio standards and the Regional Greenhouse Gas Initiative, should put the six states in a favorable position in Washington, D.C., given the major political changes that have occurred and help position the states to shape national policies on these matters.

New England in Sync with Washington

President Obama and the 111th Congress will spend the first quarter of 2009 working on a stimulus package intended to boost the nation's economy.

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NEPOOL Ushers in New Participants Committee Officers for 2009

Meet the Chairman and Six Sector Chairs

With a new year comes a new slate of officers for the New England Power Pool's (NEPOOL) Participants Committee (NPC).

The NPC provides advisory input to ISO New England on regional market rules and issues, including last year's newly launched capacity market. This group operates under the NEPOOL Agreement and the Participants Agreement, which provide the governance structure for NEPOOL and establish the processes for stakeholder participation and feedback.

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Charting the Grid of the Future

From President and CEO Gordon van Welle ●●●

The complexities surrounding development of the “smart grid” are daunting but in New England, as elsewhere, we are already charting a path to the grid of the future. The states, utilities, and market participants are adopting policies and

launching pilot projects that will

lead to build-out of a power system that is complete with the equipment and software that can communicate and react to what’s happening on the grid anywhere, in real time.

In the electricity industry, we’ve long discussed the smart grid and what can be accomplished with advanced metering and other technology. Now we’re seeing a widespread understanding of the need to wring out all the efficiencies the grid can offer and a changing political landscape that may begin to produce the incentives needed to transform the aging infrastructure we rely upon. If we fully realize the vision of the smart grid, it will be an achievement of technology, policy, and engineering.

The benefits are clear—reducing U.S. energy consumption, improving system reliability and efficiency, dramatically reducing carbon dioxide emissions, and controlling costs.

Chief among the current challenges is the need for universal standards for the devices that will sense and communicate the health of the power system, help operators better assess and visualize power system conditions, and measure, monitor and control the grid. Developing grid interoperability—the ability of all these smart devices to communicate with each other throughout each power system and between power systems—is key to developing the grid of the future.

Nearly a dozen advanced technology projects are underway at ISO New England that will help move the region toward the smart grid. They include replacement of the Remote Intelligent Gateway equipment with industry-standard equipment for substation automation and installing phasor measurement equipment that provides instantaneous data from across the grid, allowing system operators to understand the status of the grid in real time.

We have implemented the Alternative Technologies Regulation Pilot Program, which will demonstrate the capabilities of clean technologies such as flywheels to help provide regulation on the grid (see related article in the [October 2008](#) issue of *ISO New England Outlook*), and we have taken significant steps toward

developing the Advanced Grid Simulator, which will model the grid of the future.

One important factor on the path to the smart grid is our expanding demand-resources (DR) program. The 2,900 megawatts (MW) of DR that cleared in the second Forward Capacity Auction—representing almost 10 percent of the capacity that will be needed in 2011-2012—are bringing us closer simply through the measures we’re taking to make this high concentration of DR work effectively. The communications infrastructure needed to send signals from the ISO to DR aggregators and on to their DR assets can be the foundation for the grid of the future. ISO New England is continuing our project to develop a new communications infrastructure and more completely integrate DR into operations and markets (read [What’s Your Outlook](#) on p. 1).

To help guide the smart grid discussion in New England, the ISO will soon be issuing, “Overview of the Smart Grid: Policies, Initiatives, and Needs,” a paper that surveys and distills the sizeable amount of information out there on this topic. In the paper you will find a review of state, federal, and industry initiatives aiming to “squeeze more efficiency out of the existing grid infrastructure through the use of intelligent, automated supply-side and demand-side devices and legislate business practices that provide incentives for the efficient production, transport, and consumption of electricity across the entire electricity supply chain.”

Traditional generating resources will remain at the core of the power system for the foreseeable future, but I believe New England with the rest of the country will move inevitably to a future where 10, 20, or even 30 percent of our capacity comes from wind and other renewables, DR, new technologies such as flywheels, and even plug-in electric vehicles, which can charge at night and feed the grid during the day at times of peak demand. Our industry is on the cusp of a new period of great innovation, and ISO New England will continue to explore these opportunities while providing a reliable supply of electricity and competitive wholesale electricity markets to the people of New England. ●●●

Second Forward Capacity Auction Continues to Advance Demand-Side Resource Development and Lower Out-of-Market Costs

New England's second Forward Capacity Market auction (FCA-2), which concluded on December 10, 2008, successfully procured the resources needed to maintain the long-term reliability of the region's power system.

Bidding among the 42,777 MW of eligible resources began at \$12.00 per kilowatt-month (kW-month) and systematically decreased throughout eight consecutive auction rounds. The final round's price fell to \$3.60 per kW-month, the floor price established for this auction. The auction secured the 32,528 MW needed for reliability in 2011 to 2012 at that floor price, along with an excess of 4,755 MW.

Notable in the second auction's results is the continued growth of demand-side resources within the region. More than 2,900 MW of DR cleared in FCA-2, up from the 2,500 MW of this resource type secured in the first auction. Supply-side resources selected in FCA-2 totaled 33,988 MW, of which 1,157 MW are new generation.

In addition to attracting new power system investment and maintaining existing power resources, the FCA reduces the number of reliability agreements, or contracts established outside the competitive market with power plants needed for reliability. In this latest auction, no existing power plants sought to 'delist' or withdraw from the auction. As a result, no resource will receive out-of-market reliability compensation. This compares to the 330 MW that can receive reliability payments from the first auction for the 2010 to 2011 timeframe.

The Forward Capacity Market was developed by ISO New England, the six New England states, and industry stakeholders to promote investment in power system resources. Power system resources secured include both supply-side resources such as power plants and demand-side resources such as energy efficiency, load management, and distributed generation. Under the Forward Capacity Market (FCM), ISO New England projects the needs of the power system three years in advance and then holds an annual auction to purchase the power system resources that will satisfy the future regional requirements.●●●

Key FCM Dates for 2009

Here are some of the key dates and deadlines in the year ahead for the third Forward Capacity Market's auction (FCA-3—2012/2013 Capacity Commitment Period).

- **February 3:** Existing capacity qualification deadline
- **February 17:** New capacity qualification deadline
- **May 29:** ISO to distribute new capacity determination letters
- **July 7:** ISO to file qualification results with FERC
- **October 5:** FCA-3 begins

Note that the original date for the February 17 deadline was March 3. The ISO and NEPOOL revised the date in a filing made with the Federal Energy Regulatory Commission (FERC) on December 1, 2008 (FERC Docket No. ER09-356-000). FERC may not issue a determination on this filing until shortly before February 17, so auction participants should plan accordingly.

A revised calendar reflecting additional 2009 deadlines for FCA-3 as well as a full calendar for FCA-4 will be available on ISO New England's Web site after February 17, 2009. Contact ISO New England Customer Service at (413) 540-4220 or custserv@iso-ne.com with questions.●●●

New Brochure Offers Quick Market Rundown

The ISO has just published a brochure that provides a brief introduction to the history and development of New England's markets, plus descriptions of market products and services. The *Wholesale Electricity Markets* brochure completes a set of three brochures: *Reliable Electricity*, which describes the ISO role, and the *Control Room Tour*, which illustrates how we operate the bulk power system.

For copies, contact the Corporate Communications Department at info@iso-ne.com.●●●

Wholesale Electricity Markets

ISO new england



ISO-NE Engineers Gain Enrichment through IEEE Involvement

Organization Offers Abundant Professional, Educational, and Networking Opportunities

A visit to any monthly meeting of the IEEE Springfield section would reveal a large contingent of ISO New England engineers at the helm. IEEE, the world's largest technical professional association, has a section in Western Massachusetts, which until January 9 was chaired by Quan Chen, principal engineer in Resource Adequacy at ISO New England (pictured at left, below).

Quan has left the board, but three ISO New England engineers are serving on the board now: Yan Ou, lead engineer in Day-Ahead and Related Markets Application Support (pictured at right), is now vice chair; Mariah Winkler, associate engineer in FCM and Tariff

Administration (pictured center), is now treasurer; and Yujie Hu, senior engineer in Real-Time Market Support, has joined the board as secretary (not pictured). Ou had previously chaired the Springfield section's Joint Affinity Chapter of Graduates of the Last Decade (GOLD) and Women in Engineering (WIE), and Winkler was student activities chair.



The Springfield section of IEEE has about 460 active members, with about 30 from the grid operator. The section serves IEEE members living in Hampden, Hampshire, and Franklin counties of Massachusetts. The Springfield section also sponsors two student chapters, at the University of Massachusetts and Western New England College, with more than 70 students participating. The GOLD and WIE chapters were established recently under Quan's leadership.

Quan, who served as chairman of the Springfield section from June of 2007 to January 2009, said the organization offers "a connection with professional people, a lot of brilliant people, nice people." Membership in IEEE also helps engineers like himself stay in touch with developments in his field.

Parent IEEE

IEEE originally stood for the "Institute of Electrical and Electronics Engineers," but the group has grown to encompass related fields from aerospace to vehicular technology so that it is

now called IEEE or I-triple-E. The parent organization, with its roots in technical societies led by the likes of Thomas Edison and Alexander Graham Bell, will celebrate its 125th anniversary in 2009. The Springfield section formed in 1922, and it will celebrate its 87th anniversary next year.

Overall, the association has some 376,000 members in 160 countries. Members can choose from 38 societies and seven technical councils based on their specific interests, from nanotechnology to ultrasonics. IEEE organizes its membership into 10 geographic regions worldwide, with 324 sections that

include chapters organized around special interests, such as the 452 student branch chapters at colleges and universities. IEEE has nearly 80,000 student members around the world.

IEEE also offers continuing education for its members; develops international standards—900 to date, with more than 400 in development—and provides philanthropic support to advance technological innovation.

Quan has been a member of the non-profit organization since 1985, when he joined as a PhD student at Texas A&M University. Many IEEE members join as students because of the professional, educational, and networking opportunities the association offers. According to Quan, who has had five papers published in peer-reviewed IEEE journals, getting a paper published in one of IEEE's professional journals is considered essential for grad students in electrical engineering.

Several other ISO New England employees have made contributions to the technical literature in recent years, including Fei Zeng, Tongxing Zheng, Xiaochuan Luo and Eugene Litvinov. Zeng is a principal engineer in Resource Adequacy. Zheng and Luo are principal analysts and Litvinov is senior director, all in Business Architecture & Technology. Xiaochuan Luo also achieved the distinction of receiving a Region 1 Professional Award last year, for contributions to power system visualization and enhancement of power system analysis in a real time environment. Region 1 covers New England, New York, New Jersey, and Pennsylvania.

Learn more about IEEE at www.ieee.org.

Stakeholders to Consider Demand Response, Energy Efficiency, and Governance Issues this Year

Throughout 2009, ISO New England will be working with the states and NEPOOL to consider FERC-mandated and state energy policies, such as energy efficiency and demand response.

Price-Responsive Demand

When FERC approved rule changes to the Day-Ahead Load Response Program in 2008, it asked the ISO to initiate a stakeholder process to determine the future of all price-based demand-response programs (read related article in the [May 2008](#) issue of *ISO New England Outlook*). The ISO must determine whether to terminate or modify the programs before they expire in June 2010, the beginning of the first Forward Capacity Auction commitment period.

Price responsive demand plays an important role in the markets because it puts downward pressure on wholesale prices and can reduce the need for additional power system infrastructure. One of the primary issues under consideration is the best way to capture greater levels of price-responsive demand in the marketplace, taking into consideration the broad complexities of achieving this and the potential impact on the industry. Throughout the year, the NEPOOL Markets Committee (MC) will consider the various approaches to this issue.

FERC Order 719

In addition this year, the MC will review other demand-response issues per [FERC Order 719](#), which requires all RTOs to examine the existence of barriers to the involvement of demand response in the wholesale markets. Order 719 also requires consideration of market monitoring issues and long-term contracting opportunities.

Another set of issues for consideration in Order 719 relates to RTO responsiveness. ISO New England has established the [RTO Responsiveness and Governance Working Group](#) to consider specific responsiveness requirements set by FERC, as well as other broad governance-related issues. The effort is being led by a steering committee made up of representatives from the New England Conference of Public Utilities Commissioners, state Attorneys General and Consumer Advocates, NEPOOL, and the ISO.

EE Program Impact

The ISO has established a stakeholder process to examine and compile detailed information about state energy-efficiency programs to better understand the magnitude, expected implementation, and potential impact these programs could have on the New England bulk power system, wholesale electricity markets, and grid planning. Beginning in March, state and utility representatives and other stakeholders will provide information on

existing and future energy-efficiency programs, as well as the expected timing, sequence, and energy savings of these programs. The goal of this process is to develop the most complete data set possible to serve as a resource for future analysis, and to summarize the data in the *2009 Regional System Plan*.

FCM Steering Group

With the experiences of two auctions and preparations for the third, a number of FCM changes have been proposed or discussed among state regulators, market participants, consumer advocates, and the ISO. This month, a steering group has been created to help establish and administer the process for considering improvements to FCM. The group includes six individuals with broad perspectives and a detailed understanding of FCM to help guide the various FCM issues through the stakeholder process. ●●●

Results of Surveys to Help ISO-NE Improve Settlement-Related Materials on Web

ISO New England launched two Internet-based surveys during November 2008 to learn more about how it can make customer-focused improvements to settlement (billing)-related aids and reference materials on its Web site (read article in the [October 2008](#) issue of *ISO New England Outlook*). Results of the survey clearly showed how market participants use the ISO Web site to obtain settlement-related information and for verification of invoice line items. Approximately 50 percent of the market participants who visited the surveys responded.

ISO New England will use these survey results to enhance settlement-related materials on the Web site and ensure these items are easily located and usable. Over the next few months, the ISO will [post to its site](#) detailed survey results as well as planned updates for Web improvements. The ISO may contact survey respondents who indicated their willingness to participate further in this effort for follow-up questions and information. ISO New England appreciates market participants' interest in this endeavor and is happy to receive any additional suggestions for future improvements. Please contact the Web Content Manager at wcm@iso-ne.com with any comments or questions. ●●●

What's Your Outlook?...Continued from page 1

Why are you a good fit for this job?

I have 25 years of operations experience in New England. I began my career with Fitchburg Gas and Electric in 1983 as an Energy Production Supervisor and then joined New England Power Service Company (now National Grid) in 1987 as a satellite control center system operator. In 1994, I joined NEPOOL and then ISO New England, where I have held several positions in operations, including Control Room Supervisor and Manager of Operations Training, Business Process and Compliance. I'm also a North American Electric Reliability Corporation -certified operator. Most recently, I worked as the Manager of Market Administration where my responsibilities included the operation of the energy and ancillary service markets within New England. These years of practical experience can help us find the best ways to integrate these non-conventional resources.

Why is there so much emphasis on integrating demand resources?

DR, which includes energy efficiency, load management, and distributed generation, has become a key component of system reliability and market efficiency

ISO New England is the independent, not-for-profit corporation responsible for reliably operating New England's 32,000 megawatt bulk electric power generation and transmission system, by overseeing and ensuring the fair administration of the region's \$10 billion wholesale electricity markets, and by managing comprehensive regional electric power planning.



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in New England. With the advent of the Forward Capacity Market, DR is competing directly with supply-side resources. The first and second Forward Capacity Auctions brought several thousand megawatts of DR into the mix (see related article on page 3), comprising almost 10 percent of the capacity we project will be needed in 2011-2012. Remember, we started with about 500 MW of DR in 2006.

The initial set of rules for FCM did not foresee the tremendous growth in DR in the first two auctions. Working with our stakeholders, we reviewed the rules and developed improvements to more fully integrate DR into operations at these higher levels. After going through an extensive stakeholder process, the proposed rules received uncontested FERC approval of all changes on October 28, 2008.

What are the special challenges involving integration of DR?

I would say that there are three major challenges. First, in order to avoid overusing demand resources—which can result in “DR fatigue”—you need to make sure that you only use the resources when you need them, where you need them, and in the amount that you need them. The revised rules established dispatch zones that allow operators to pinpoint locations where DR can be called upon when needed, rather than calling all DR across New England.

The second challenge is making sure that the DR providers understand how often they may be called upon so that they can ensure that they can meet those requirements. We accomplished this by providing our stakeholders with an analysis estimating the number of hours a resource might have to operate in future years. This allowed stakeholders to determine how much DR they wanted to keep in the FCM auction.

Third, the ISO is developing operational practices and user interfaces so that operators and planners can study the impacts of interruptions and then

dispatch DR more effectively to maintain system reliability. In addition, we are working with stakeholders to replace the current DR communications infrastructure with a redundant, more economic and secure network to effectively communicate with demand providers by June, 2010.



Why is integrating energy from wind such a challenge?

Primarily because it's difficult to forecast the wind at the precise location of a wind turbine or farm. If you can't accurately forecast a wind farm's output on a day-ahead basis, it's difficult to ensure that the commitment of generators for the next day will turn out to be secure and economic. System operators need to fully understand where megawatts will be flowing on the system at any point in real time or in near real time in order to plan and operate reliably. The wind integration study we're doing this year will help us determine the best methods of forecasting the wind and associated megawatt output.

Describe the wind integration study.

We are going to conduct a comprehensive study of what is needed to integrate wind resources in New England. The main part of the study will focus on developing a mesoscale and wind plant model for the New England area, including onshore and offshore capability. Using those models, the study will look at several wind development scenarios to determine their impact on unit

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Federal Election Results...Continued from page 1

The Obama Administration shares the philosophy of the New England states that energy and environmental initiatives can also serve as an economic development opportunity. This is of particular interest to federal policymakers because it is the clean energy sector that shows the greatest promise for creating jobs quickly. Therefore, the stimulus package, if approved in its present form, will likely provide grants, loans, and tax credits to stimulate investment in clean energy programs such as energy efficiency for government buildings and vehicles, renewable power development and research, and modernization of the electric grid.

Being among the first in the nation to limit carbon emissions and set renewable power requirements, New England should be well-positioned to receive funding for existing programs and benefit from the emphasis the new administration is putting on renewable energy. Over the past few years, many of New England's colleges, businesses, and states have increased focus on energy and green-collar education and jobs, which may also help the region obtain federal incentives.

Fed, States Converge on Energy Policies

After the immediate priority of the economy, President Obama will likely look to advance his energy policy, which calls for implementing greenhouse gas emission reductions across business sectors, stimulating renewable power generation, promoting smart grid technologies, and getting a million plug-in hybrid cars on the

road by 2015. Similarly, the Democrat-controlled Congress is expected to pursue national renewable portfolio standards and climate legislation this year. In doing so, they likely will seek to legislate measures viewed as necessary to helping these initiatives succeed, such as creating some form of enhanced siting authority for developing transmission lines that can access remote renewable resources and broad planning for large-scale wind projects.

With the makeup of its congressional delegation and its progressive approach to solving energy and environmental challenges, New England will have a strong voice in national energy and environmental policy discussions. New England's success in developing wholesale electricity markets that are rapidly attracting renewable and demand-side resources and in advancing needed transmission upgrades has received national attention and will likely be considered as legislative proposals are written.

The states already have passed laws to stimulate advances in clean energy and energy efficiency and all six New England governors are adopting meaningful goals for deployment of renewable power and DR. It is expected that this aggressive approach to clean energy development will continue and be supplemented by efforts to stimulate the development of innovative energy technologies that can improve the overall efficiency and use of the grid. As an example the state of Massachusetts last year created an "alternative energy portfolio standard" that includes flywheel energy storage and combined heat and power technologies (see article in the [October 2008](#) issue of *ISO New England Outlook*).●●●

What's Your Outlook?...Continued from previous page

commitment scheduling, automatic generation control, reserves, and other key elements of the system.

Another important component of the study will be to review previous operational studies from around the world and research the most effective tools and processes already in place elsewhere. The study will recommend best practices for forecasting wind, technical requirements for operation and interconnection of wind, and establishing a capacity factor for wind at various locations.

We only have a little over 100 MW of wind on the ISO New England system. Why embark on this huge study now?

It's prudent to get ahead of the curve and prepare for large-scale integration of wind rather than wait until you have a real problem to deal with. When 2008 began, we only had about 20

MW of wind on the system. Another 80 MW was developed by the end of the year. We expect another 200 to 300 MW of wind will come online in the next year or so. In addition, we have 4,300 MW of wind that have entered the interconnection queue, so we need to be prepared to fully integrate this wind into system and market operations.

Do DR and wind have much in common when it comes to integrating them into operations?

There's actually a synergy between wind and DR in that DR can help compensate for the drop in power when the wind stops blowing or when wind turbines cut out during high wind events. The two resources have the ability to complement each other in that respect, while meeting reliability needs and increasing the efficiency of the system.●●●

NEPOOL 2009 Committee Officers...Continued from page 1

The responsibilities of the NPC are numerous, including development and approval of NEPOOL budgets and participating in the nomination and selection of members of the ISO New England Board of Directors. What's more, members of the Participants Committee are tasked with evaluating and providing perspective on all Market Rule and Open Access Transmission Tariff changes prior to the filing of those changes with the FERC.

"The input and insights of New England's stakeholders are key to continually enhancing our regional wholesale power markets and the reliability of the New England power system," said Charles Ide, ISO New England's Manager of Market Rules Integration and Chair of the NEPOOL Markets Committee. "New England has a unique collaborative structure among NEPOOL, the ISO, and the states that has proven effective."

In carrying out its responsibilities, the NPC is categorized into six sectors—generation, end user, publicly owned entity, alternative resources, transmission, and supplier. Upon becoming a member of NEPOOL, a market participant must determine its organization's sector membership. At its annual meeting each year, the NPC elects officers for each of the six NEPOOL sectors, as well as a chairperson for NEPOOL generally. Those elected for 2009 were chosen by market participants at the December 12, 2008, meeting.

"The vice-chairs for 2009 are committed to a productive year ahead considering developments for New England's energy markets. I look forward to collaborating with them as we work together with the ISO and other stakeholders to that end," said Robert Stein, Principal and Co-Founder of Signal Hill Consulting Group and the NEPOOL Participants Committee Chairman.

Each of those serving as NPC vice-chairs has extensive experience in the energy industry. A brief biography for each of the individuals elected to serve in 2009 as an officer for the NEPOOL Participants Committee is included below.

PC Chairman & Supplier Sector Vice-Chair: Robert Stein, Principal & Co-Founder, Signal Hill Consulting Group

Robert Stein has over 35 years of experience in the utility business, both as a senior executive at an investor-owned utility and as a consultant to developers of market-based generation projects. Mr. Stein is a principal and co-founder of Signal Hill Consulting Group LLC, a firm developed to help utility and electric consumer clients capture the value resulting from the developing competitive power market. He currently represents Hydro Québec US in the stakeholder process.

He began his career at NEPOOL in 1971 and has represented MMWEC, United Illuminating, and Central Vermont Public Service Corporation in NEPOOL as well as holding positions in transmission and resource planning, finance, and wholesale power marketing.

Alternative Resource Sector Vice-Chair: Cynthia A. Arcate, Director of Business Development, Comverge, Inc.

Cynthia Arcate is the Director of Business Development in New York and New England for Comverge, Inc., a leading provider of clean energy through demand response and energy efficiency.

Prior to joining Comverge, Ms. Arcate was Deputy Commissioner for Programs at the Massachusetts Division of Energy Resources (DOER). She had overall responsibility for most programs of the agency, including the agency's oversight and coordination of the state's electric and gas energy efficiency programs, administration of the renewable energy portfolio standard, and energy policy development.

Prior to coming to DOER, Ms. Arcate held a variety of legal and senior management positions at National Grid, USA. She has extensive experience in rate matters, including cost of service, rate design and retail competition issues. Prior to joining National Grid, Ms. Arcate was a staff attorney at the FERC.

Transmission Sector Vice-Chair: Calvin A. Bowie, Manager, NEPOOL and ISO Relations, Northeast Utilities

Calvin Bowie has extensive experience with NEPOOL dating back to 1984. Mr. Bowie has a utility industry background in distribution engineering, system planning, commercial and industrial account management, and wholesale marketing.

Prior to the formation of ISO-NE, he participated in the restructuring of NEPOOL and the development of the markets. He was active in NEPOOL governance and membership, chairing the Membership Subcommittee for a number of years.

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NEPOOL 2009 Committee Officers... *Continued from previous page***Publicly Owned Entity Sector**

Vice-Chair: Brian E. Forshaw,
 Director of Energy Markets,
 Connecticut Municipal Electric
 Energy Cooperative (CMEEC)

For more than 25 years, Brian Forshaw has been employed at CMEEC, a joint-action power supply agency organized pursuant to the Connecticut General Statutes to secure reliable and low-cost power supplies for municipal electric utilities. He is responsible for representing CMEEC and other publicly-owned utilities at NEPOOL. In addition, he also oversees long-term resource planning, strategic planning, and contract negotiations with CMEEC.

Mr. Forshaw was formerly employed as Vice President, Energy Operations, for Energy New England, LLC, a provider of power trading, resource management and energy services to municipal electric utilities throughout New England. Mr. Forshaw also previously served as an Assistant Trader for Thomte & Co, a commodity futures trading advisor specializing in commodity futures markets in New York and Chicago.

Generation Sector Vice-Chair:

Peter D. Fuller, Director, Regulatory & Market Affairs, NRG Energy, Inc.

Peter Fuller has 25 years of electric utility industry experience in New England. As Director of Regulatory & Market Affairs for NRG, Mr. Fuller is responsible for the company's state and federal regulatory and policy activities in New England, including NRG's active participation in the New England stakeholder process.

Mr. Fuller was chairman of the NEPOOL Participants Committee in 2006-2007, and also served as the Co-Chair of the Installed Capacity Requirements Working Group and is NRG's representative on the Markets Committee, among others. Mr. Fuller is also Chairman of the New England Power Generators Association, the largest trade association representing competitive electric generation companies in New England.

Prior to joining NRG in 2008, Mr. Fuller was employed by Mirant Energy Trading for eight years, and before that held a number of positions in power supply planning and engineering with Eastern Utilities Associates.

End User Sector Vice-Chair:

Donald J. Sipe, Partner, Preti, Flaherty, Beliveau, Pachios & Haley

Donald J. Sipe practices with Preti, Flaherty, Beliveau, Pachios & Haley's Energy and Telecommunications Group in Augusta, applying his expertise to help energy and utilities clients make the transition from regulation to competition.

In his role with NEPOOL, Mr. Sipe represents end-user participants, including the Industrial Energy Consumer Group, which was the first participant of this type in NEPOOL.

Before joining Preti, Flaherty in 1997, he worked for eight years as a staff attorney with the Maine Public Utilities Commission. His primary responsibilities at the Commission included natural gas issues, electric utility regulation, special rate-contract litigation, rate design, and antitrust matters relevant to electric rate restructuring. He also served as an advocate and advisor in water utility regulation. ●●●

ISO-NE Publishes AMR/RSP Booklet

The executive summaries of the *2008 Regional System Plan* and *2007 Annual Markets Report* are now available in a new booklet published by ISO New England.

Each year, the ISO issues these two major technical reports to examine the performance of New England's wholesale electricity markets and bulk power system and present plans to address current and future needs. Analyzing past events and planning for the future help ensure the region's wholesale electricity markets are increasingly competitive and efficient, that adequate investment in the power system infrastructure is taking place, and that New England's residents and businesses have a constant supply of clean and competitively-priced electricity.

Both AMR07 and RSP08 illustrate that the regional planning process, combined with the incentives created by the competitive wholesale markets, are doing just that and have led to significant progress toward meeting system needs identified over the past decade—providing more supply options and improved transmission, encouraging new entry and innovation, spurring development of new technologies, promoting demand response and energy efficiency, and improving operating performance of market participants.

For copies, contact the Corporate Communications Department at info@iso-ne.com. ●●●

