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MMWEC Conference explores critical issues for municipal utilities

State and federal energy officials joined with MMWEC members and staff in analyzing some of the critical issues facing municipal utilities at MMWEC's Annual Conference, May 9 and 10 in Tyngsboro, MA.

Richard K. Sullivan, Jr., secretary of the Massachusetts Executive Office of Energy and Environmental Affairs, said municipal

utilities play an important role in achieving the state's energy efficiency and renewable energy objectives.

In his keynote address to conference attendees, Sullivan said the state is working to encourage greater involvement by municipal utilities in state energy programs, and new opportunities will materialize as these programs become more flexible.

During a panel discussion about energy efficiency, a state Department of Energy Resources (DOER) official recognized the value of MMWEC's Green Opportunity (GO) Program for commercial and industrial energy efficiency. Ian Finlayson, DOER's manager of Buildings and Climate Programs, said the GO Program includes components required for state funding of municipal utility efficiency initiatives.

Electric/Gas Issues

Jason Stanek, a Federal Energy Regulatory Commission (FERC) policy advisor, opened the second day of the conference with a presentation about the challenges facing New England due to the region's growing dependence on natural gas for electric generation at a time when the region's natural gas pipeline capacity is limited.

Stanek is a 7-year policy advisor to FERC Commissioner Philip Moeller, who has led the FERC in seeking resolution to



Jason Stanek, Federal Energy Regulatory Commission policy advisor, discussed the electric/natural gas issues facing New England.

the nation's electric/natural gas issues. These issues are most acute in New England, where natural gas constraints resulted in price spikes and threats to electric system reliability earlier this year.

Recognizing the gravity of these issues, the FERC has established a separate docket to examine the need for gas-electric coordination and conducted a series of technical conferences to explore and advance potential solutions.

Stanek praised MMWEC's participation in this process, including meetings with

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State Energy and Environmental Affairs Secretary Richard K. Sullivan, Jr., above, spoke of opportunities for municipal utilities to participate in state energy programs.

Annual report covers 'Cyber Realities' of electric utility business

An increasing portion of electric utility business is conducted in cyberspace, and MMWEC's 2012 annual report highlights the "Cyber Realities" facing Massachusetts municipal utilities.

Among those realities are:

- ◆ The need to manage both information and technology on an enterprise-wide basis to support MMWEC's core business functions;
- ◆ Cyber interaction with ISO New England (ISO-NE) is the lifeline for participation in wholesale power markets, where compatible systems are required to ensure timely and accurate data transfers;
- ◆ The need for electronic capability is complicated by the need for cyber security, particularly in the electricity sector; and

- ◆ There is growing competition in cyberspace from companies using technology to bring energy efficiency and other services directly to customers.

The core business functions of MMWEC - power supply, engineering, financing and accounting - rely heavily on information technology to ensure reliable business operations as well as the availability and security of business data.

As a result, MMWEC is implementing a Strategic Information Technology Plan (SITP), starting with a redesign of its financial and accounting systems, which was completed early in 2013.



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FERC commissioner and involvement in various regional activities.

Stanek also joined Wakefield Municipal Gas & Light Department General Manager Peter Dion and MMWEC's Director of Engineering & Generation Assets Ed Kaczewski in a panel discussion.

Dion explained how greater demands on natural gas for electric generation are causing pipeline constraints for Wakefield's natural gas heating customers, a new reality for gas distribution utilities. At the same time, he said, generally lower natural gas prices are creating record demand for new gas service connections.

Kaczewski said natural gas issues are affecting operation of MMWEC's gas- and oil-fired Stony Brook power plant, a valuable asset to the region due to its dual-fuel capability and large oil storage capacity.

He said Stony Brook is well positioned to participate and earn additional revenues via a temporary initiative proposed by ISO New England (ISO-NE) to enhance reliability next winter. Under this initiative, MMWEC would purchase additional oil for Stony Brook and hold it in reserve for use by ISO-NE next winter if system reliability is threatened by constraints on the supply of natural gas into the region.

Compensation levels and other details of the program remain under discussion in ISO-NE committees, with plans to file a proposal with the FERC in July. As an electric generation owner, MMWEC and its Project Participants also are benefiting from other ISO-NE reliability initiatives,

including an increase in the quantity and price of electricity reserves.

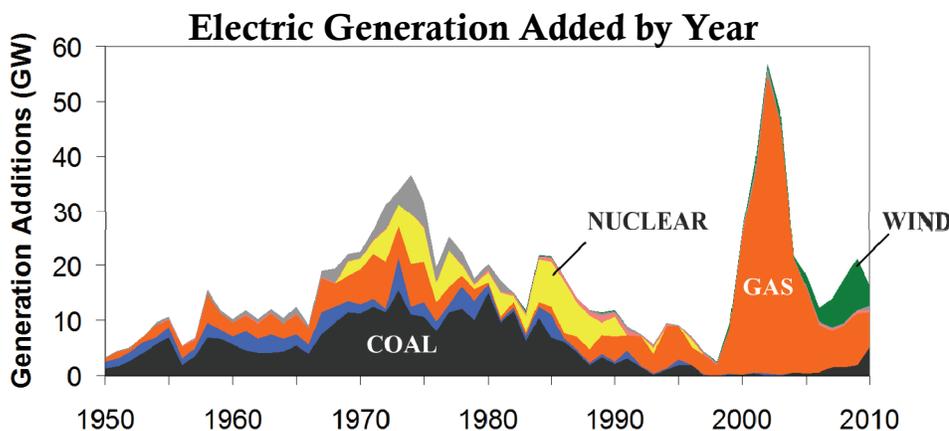
Price/Reliability Impacts

Early this year, ISO-NE flirted with brownouts and blackouts due to limited fuel availability for electric generation. At the time, New England's peak power prices quadrupled, spiking up to \$135 per megawatt hour.

Such impacts underscore the need for solutions, which panelists agreed include new gas pipeline capacity to relieve constraints in New England. While there are other solutions being developed, such as better communications between pipelines and ISO-NE, power market rule changes and better alignment of gas and electric trading days, the need for new pipeline capacity is inescapable.

The rather solemn bottom line of the panel discussion was that New England's exposure to price spikes and reliability problems related to natural gas constraints will persist for at least several more years, given the time required to implement some of the longer-term solutions being discussed, including new pipeline construction.

"New England consumers are missing out on the full benefits of the nation's inexpensive and abundant supplies of natural gas," Kaczewski said. "We are paying a premium for natural gas due to limited pipeline capacity and losing the economic development opportunities that come with cheaper energy," he said.



This graph, presented by FERC Policy Advisor Jason Stanek at MMWEC's annual conference, shows natural gas and wind dominating new electric generation in the United States over the last decade. New England now relies on natural gas to produce more than 50% of its electric energy.

GO Program testimonials



As part of her annual conference

presentation on MMWEC's Green Opportunity (GO) Program, Energy Efficiency Program Manager Sandra Annis included audio and video testimonials from current GO Program beneficiaries.

The GO Program delivers customized energy efficiency solutions for commercial and industrial customers of Massachusetts municipal utilities. Several municipal utilities already are participating in the program. Below is what some of the GO Program participants had to say.

Westfield Mayor Daniel Knapik:

"We wanted to do more in terms of energy efficiency for our businesses. It's a wildly popular program and we have been able to work significantly toward the goal of energy conservation.

"The other part is, in our retail establishments, there is the feeling that this 100-year-old Westfield Gas & Electric is truly a community partner with them."

Bryan Hedge, Pioneer Cold refrigerated warehouse, Chicopee, MA:

"Here at Pioneer we participated in the incentive rebate program with Chicopee Electric and they've been a good partner with us. The rebate incentive of 30% ... allowed us to not only meet the ROI projection but actually exceed it ..."

Tim Morris, Morris Heating & Air Conditioning, Ipswich, MA:

"Tim Henry (manager of the Ipswich municipal utility) and the Ipswich business community working together ... makes the program work. If it weren't for the partnership with the Ipswich (utility) the program wouldn't work, and it definitely works. It works 100%."

Carol Appleton, Amelia Park (Ice) Arena, Westfield, MA:

"We're thrilled to be part of the program. We were never able to take on such a project as our heat exchanger, (but) the rebate program and partnership with the Westfield G&E made it all possible ... and extremely cost-effective."

MMWEC elects directors & officers in 44th year of service to municipal utilities

The MMWEC members and Board of Directors on May 9 elected the directors and officers of the organization, which is entering its 44th year in service to the consumer-owned municipal utilities of Massachusetts.

MMWEC was created in 1969 and became a non-profit, public corporation and political subdivision of the Commonwealth in 1976, empowered to issue tax-exempt bonds to finance energy facilities for the benefit of municipal utilities and their customers.

Paul Robbins, a gubernatorial appointee to the MMWEC Board of Directors, was re-elected by the board to a one-year term as chairman. Peter D. Dion, general manager of the Wakefield Municipal Gas & Light Department, was re-elected by the MMWEC membership to his fifth one-year term as president of MMWEC.

Representatives of MMWEC's 21 member municipal utilities also re-elected three directors to three-year terms on the board, including Mansfield Municipal Electric Department Director Gary R. Babin, Chicopee Electric Light Manager Jeffrey R. Cady and Sterling Municipal Light Department General Manager Sean Hamilton.

Additional MMWEC officers for the coming year, as elected by the board, are Ronald C. DeCurzio, chief executive officer and secretary; Stephen J. Smith, assistant treasurer; Alan R. Menard, assistant treasurer; Nancy A. Brown, assistant secretary; and Nicholas J. Scobbo, Jr., general counsel.

Other MMWEC directors, elected previously by the membership, are James M. Lavelle, Holyoke Gas & Electric Department manager; Kevin P. Kelly, Groton Electric Light Department manager; Philip W. Sweeney, Marblehead Municipal Light Department commissioner; and Jonathan V. Fitch, West Boylston Municipal Light Plant manager.

Michael J. Flynn of Wilbraham is a gubernatorial appointee to the MMWEC board and also represents the Town of Wilbraham. Luis Vitorino represents the Town of Ludlow, and Cornelius Flynn recently was appointed to represent the Town of Hampden on the board.

The MMWEC board consists of 12 director positions, with seven directors elected by the MMWEC membership, two appointed by the governor of Massachusetts, and three representing the towns of Ludlow, Wilbraham and Hampden.



Robbins



Dion



Hamilton



Babin



Cady

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MMWEC's Director of Information Technology Daniel Suppin discussed the SITP and related activities in a presentation at MMWEC's annual conference.

The SITP is a comprehensive strategy to transform MMWEC's information systems and business processes into a sustainable, competitive advantage for municipal utilities. Over time, the plan will replace isolated islands of data and dated technology with a flexible and efficient information systems platform that enables cross-functional collaboration.

The financial and accounting systems redesign has replaced outdated general ledger, accounting, purchasing and financial reporting systems. MMWEC's financial services technology infrastructure has changed fundamentally with this project, which has provided a strategically-designed applications platform to build upon.

Going forward, the SITP calls for ex-

tending the efficiencies, security and other strategic benefits of transformed information systems to all of MMWEC's critical business functions. At the highest level, those benefits are greater quality and value in the services that MMWEC provides.

In addition to its internal business functions, MMWEC manages its members' interactions with ISO-NE, where increasingly complex wholesale power markets bring new information technology requirements and costs.

Large amounts of data are exchanged daily with ISO-NE to bring the resources of MMWEC and its members to market and to settle financial accounts.

New England's wholesale power markets grow in dimension and complexity almost daily, and compliance with an expanding realm of market rules and reliability regulations is required. As ISO-NE grows, so grow the costs and infrastructure require-

ments of participation in the wholesale power markets.

MMWEC's SITP is designed to integrate changing technologies to ensure that its information systems are compatible with those of ISO-NE.

Complicating the need for cyber capability are the growing number of attacks on computer systems and data. As a result, security of the power grid is a top concern among electric utilities, legislators, regulators and others.

As the debate in Washington and other venues continues, MMWEC is working to ensure that its electronic assets are protected and that the scope and cost of cyber security requirements do not place an undue burden on municipal utilities.

There are more details on these "Cyber Realities" in MMWEC's annual report, which is available on MMWEC's public website at www.mmwec.org.

MMWEC keeps pace with evolving NERC and cyber security requirements

Requirements to ensure electric power grid reliability are evolving, as the North American Electric Reliability Corporation (NERC) works with the Federal Energy Regulatory Commission (FERC) to more clearly define what needs to be protected and develop standards to ensure the protection of critical equipment.

National reliability standards are developed with electric industry input through NERC, and MMWEC represents the interests of its members by participating in various NERC activities.

According to David Gordon, MMWEC's NERC and Regulatory Services Compliance Officer, MMWEC is subject to many of the NERC standards due to its status as a generation owner, generation operator and transmission owner.

At the same time, local distribution facilities currently are not included in the definition of the bulk electric system and smaller utilities like many of MMWEC's members are not subject to NERC reliabil-

ity standards, Gordon said. However, even the smallest utilities are indirectly affected by NERC reliability standards, as the costs of compliance for larger entities such as ISO New England are passed through to consumers throughout the region, he said.

Gordon explained some of the intricacies of NERC compliance and cyber security in a presentation at MMWEC's annual conference. He said the requirements for cyber security, separate from the NERC operations and planning standards, are set out in a series of Critical Infrastructure Protection (CIP) standards intended to protect cyber assets that are critical to the bulk power grid.

There currently are three versions of CIP standards in play, Gordon said. CIP Version 3 is currently enforceable; CIP Version 4 is effective in April 2014; and CIP Version 5 is pending before the FERC.

It is entirely possible there will be a jump from Version 3 to Version 5, which reflects a major rewrite of all previous CIP standards. In Version 5, distribution providers and utilities with a peak load of less than 300 mega-

watts (which encompasses all MMWEC members) will be exempt from the standards unless they own Bulk Electric System facilities or a protection system subject to NERC reliability standards, Gordon said.

As the owner and operator of a black start generating unit at its Stony Brook Energy Center, MMWEC is subject to all of the CIP requirements and has developed the required cyber security program, which is scheduled for an audit by NERC later this year.

But regardless of whether the NERC CIP standards apply, all utilities should have policies in place to protect the cyber assets that are critical to their business and operations, Gordon said. The vulnerability of such assets to attack is evident in recent news about invasions of utility business and operating systems.

Gordon distinguished between being compliant and being secure and presented a business case for cyber security. He encouraged all municipal utilities to practice sound cyber security and provided a framework of practices and policies to protect cyber assets.

Visits to FERC, Congressional offices key on MMWEC, municipal utility issues

Representatives of MMWEC visited Washington, D.C., in March to discuss issues of importance to municipal utilities with the Federal Energy Regulatory Commission (FERC) and several Congressional offices.

At the FERC, MMWEC met with Chairman Jon Wellinghoff and Commissioners Cheryl LaFleur and Philip Moeller. At Wellinghoff's suggestion, MMWEC also met separately with approximately 16 FERC staff members to discuss the electric/natural gas issues facing New England.

MMWEC met with key staff members for the chairs and ranking members of the House Energy & Commerce Committee and the Senate Energy & Natural Resources Committee. Meetings also were held with Sen. Elizabeth Warren and Reps. Ed Markey and Jim McGovern, all of the Massachusetts Congressional delegation.

In addition to electric/natural gas issues, MMWEC discussed the need to preserve the tax exemption on municipal bond interest and assisted in securing sponsorship of a related House resolution by Massachusetts Rep. Richard Neal.

MMWEC also addressed inconsistencies with the public

power business model that are present in New England's Forward Capacity Market and in the FERC's order on transmission planning and cost allocation.



Meeting in Washington, D.C., are, from left, Marblehead Municipal Light Department Manager Jay Anderson, FERC Chairman Jon Wellinghoff, MMWEC CEO Ron DeCurzio and MMWEC legal counsel Scott Strauss.



Massachusetts Municipal Wholesale Electric Company

MMWEC

A non-profit, public corporation and political subdivision of the Commonwealth
Joint Action and economies of scale for Massachusetts municipal utilities

327 Moody Street, Ludlow, MA 01056

(413) 308-1392

mmwec@mmwec.org

www.mmwec.org