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MMWEC Participates in Public Power Discussion on Fuel Security Initiative

An initial MMWEC analysis of ISO New England's (ISO-NE) Energy Security Improvements (ESI) fuel security proposal reveals uncertainty and a major cost to load, or the consumers of energy.

MMWEC staff helped lead a meeting of the New England Power Pool's (NEPOOL) Public Power Sector on February 14. Public power representatives met to discuss ESI, which represents a fundamental redesign of the energy and reserve markets. If approved by the Federal Energy Regulatory

Commission (FERC), the ISO-NE proposal could result in a net cost to consumers of \$155 million, with uncertain improvements to the region's fuel security issues.

MMWEC's initial scrubbing of ISO-NE's recently released analysis of ESI demonstrates that this plan doesn't create the incentives for certain fast-starting generating assets that are currently in the forward reserve market. The ISO has committed to developing a forward procurement, which has the potential to restore forward reserve revenues these units will lose under ESI, however details on how this program will work have not been released. MMWEC will continue to analyze and validate the expected impact the proposed market changes will have on these types of generating assets.

The proposal, which has been in the works for the past 18 months, represents a major reworking of the energy and reserve markets. No other region has taken this approach, leading to significant uncertainty as to its effectiveness and cost.

The NEPOOL Public Power Sector is broadly in agreement that the proposal will not prevent the retirement of large resources with stored fuel. This is at odds with the original reason that the ISO developed the proposal. In July of 2018,



FERC ordered the ISO to develop a market-based solution to prevent future fuel security "reliability must runs," or RMRs, caused by retiring resources, such as Mystic Units 8 and 9.

Without impacting retirement decisions, the ESI proposal will fail to deliver on its fundamental value to consumers.

The proposal makes changes to help improve market efficiency. But there are new costs in the form of what are called Forecast Energy Requirement (FER) prices, which are paid to all resources that clear the market day ahead, are

substantial. FER prices will drive some efficiency improvements, which will reduce costs, but not enough to fully recover the \$243 million price tag. MMWEC and other stakeholders have successfully pushed to reduce FER prices, but they remain higher than we would like.

There are segments of the ESI proposal that remain undeveloped as an April 15th deadline looms for ISO-NE to file the plan with FERC. For example, details on ISO's plans for mitigation measures and the aforementioned forward seasonal procurement have yet to be released. NEPOOL participants, however, must vote on the plan without knowing these details. The Markets Committee will vote on the plan at its March meeting, and the Participants Committee will vote at its April meeting.

MMWEC and the rest of the Public Power Sector continue to pursue improvements to the ESI proposal, including through stakeholder amendments. Even if these amendments pass through the stakeholder process, MMWEC and other sector members will likely be inclined to oppose ESI as it comes up for votes in the stakeholder process. ∞

Warm Winter Weather Complicates Peak Forecasting

Unseasonably warm weather this winter has complicated peak energy forecasting, causing MMWEC's Emerging Technologies team to think on their feet a little more than usual.

Since 2016, MMWEC has offered peak forecasting services to its Members to help identify when the monthly transmission and yearly capacity energy peaks will be, which results in significant savings for the member light departments and their customers. Typically, the team uses a formula centered around historical weather data to predict when those peaks will occur, but that strategy had to be adjusted this winter.

According to the National Oceanic and Atmospheric Administration, January 2020 was the Earth's warmest January ever recorded, which means it did not align with weather trends

in prior years. December and February were also much warmer than past years, therefore, statistical models the team used in the past could not be applied to accurately predict this winter's energy peaks.

"We've had to adapt our processes for peak forecasting to a more 'hands on' approach," said Matthew Ide, executive director of Energy & Financial Markets.

Rather than utilizing historical weather data to look at trends for a whole month, the Emerging Technologies team monitored current day to day weather forecasts. Looking at just a few days at a time, the MMWEC analysts meticulously compared the weather predictions to identify temperature changes and used their best judgement to determine when the peaks would likely occur.

HELPS Program Rolls Out New ‘User-Friendly’ Energy Audits

Customers of MMWEC’s Home Energy Loss Prevention Services (HELPS) Program who take advantage of HELPS’ free home energy audits will receive more detailed, informed audit reports thanks to a new customer-focused audit software app. HELPS began transitioning to its new audit software, Snugg Pro, in February 2020.

Snugg Pro’s innovative software creates a 20+ page report for customers to read shortly after receiving an in-home energy audit. The report creates a detailed analysis of the home and what changes and improvements could be made to save the customer money. It is designed to be easy for the average homeowner to understand by not only outlining energy efficiency upgrades that could be made, but explaining what the recommended improvements are, why they are important, and how they will impact customers’ energy usage and rates. In some cases, photos of the house or stock images are used and a glossary of terms is included so customers can better comprehend the recommendations outlined in the report.

More data is collected through the new software, as compared to the previous HELPS audit software, which leads to more informed recommendations. Information is collected on many different aspects of the house such as the appliances and HVAC system, which helps create a more detailed report. The report identifies an overall improvement plan that analyzes the cost of all the recommended upgrades and compares it with the overall savings that would be made. However, it also breaks down the cost and energy savings potential of each individual upgrade for customers who want to make just a few home



improvements.

The reports are designed to be tailored to each customer. Each report contains a section that identifies the homeowner’s concerns, which are explored throughout the audit. Specific rebates a homeowner may be eligible for are also highlighted. The rebates offered and their respective amounts vary based on the MLP territory the customer lives in, which the audit report takes into account. Each report contains a page that outlines recommendations for customers to make that will earn them rebates from their light department based on each MLP’s specific offerings.

The reports also contain a “Massachusetts Home Scorecard” designed by the Massachusetts Department of Energy Resources. The scorecard compares data from the audit report against data of an average home in Massachusetts in different areas such as yearly energy costs, home energy use, and home carbon footprint, and assigns customers a numerical “score”. It outlines how the customer’s home performed in those categories at the time of the audit and identifies how much money, energy usage, and carbon emissions could be saved if the customer makes the recommended efficiency improvements. If customers implement those changes in their homes, their score will decrease, which means they are reducing their home’s carbon emissions.

“As audit software technology progresses, the HELPS Program strives to improve along with it,” said MMWEC Energy Efficiency Program Manager Joseph Coles. “The new software creates an enhanced experience for the MLP customers.” ∞

MLP Solar Incentive Program Off to a Successful Start

The state’s new MLP Solar Incentive Program, offering solar incentives to customers of municipal utilities, is proving to be successful.

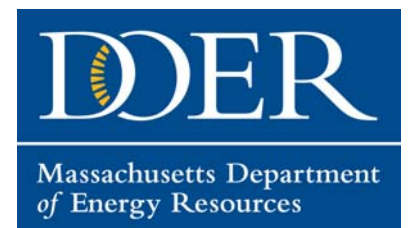
Under the program, launched in May 2019, MMWEC has teamed up with the state Department of Energy Resources (DOER) to make the installation of rooftop solar more affordable to residents in participating MLP communities. MMWEC was awarded \$772,200 by DOER on behalf of its 17 participating members to administer the program. To date, more than \$600,000 in rebate requests have been submitted by customers. MMWEC has applied for additional funding on behalf of its Members.

The incentive program includes a solar rebate of up to \$1.20/watt, capped at 50% of total costs. Municipal light plants contribute 60 cents per watt, or 50%, and DOER contributes 60 cents per watt, or 50%. Eligible solar installations must be 25 kilowatts or less, however, individual participating MLPs may have stricter eligibility criteria. MMWEC retires all renewable energy credits associated with the projects’ output on behalf of municipal utilities participating in the program.

“Through this solar incentive program, MLPs are able to respond to increasing customer requests to ‘go green,’ while also helping the state meet its carbon emissions objectives,” said MMWEC CEO Ronald C. DeCurzio. “MMWEC was pleased to work with MEAM (Municipal Electric Association of Massachusetts) to develop the program.”

The program succeeds the state’s now closed SREC II solar incentive program.

Participating MMWEC Members include utilities in Ashburnham, Boylston, Chicopee, Groton, Holden, Ipswich, Mansfield, Marblehead, Paxton, Peabody, Princeton, Shrewsbury, South Hadley, Sterling, Templeton, Wakefield and West Boylston. ∞



Wakefield Residents Can Charge Up in Town

Electric vehicle and plug-in electric vehicle owners in and around the town of Wakefield now have more options to charge their cars. The town now has three electric vehicle (EV) charging stations which were donated by the Wakefield Municipal Gas and Light Department (WMGLD).

The stations were first proposed by WGMLD at a Town Council meeting in August of 2019, at which Council members requested more information and research on EV charging stations. The Town Council voted to formally approve the charging stations at a meeting in December 2019.

The charging stations were installed throughout the town in February. There are two Level 2 charging stations in the Veterans Field parking lot on North Avenue and the parking area on the Armory Street side of the Americal Civic Center; there is one Level 3 charging station in the municipal parking lot on Lincoln Street. The Level 2 stations can charge two vehicles at a time and, depending on the model, will typically take between four and six hours to fully charge a depleted battery. The Level 3 station can charge one vehicle at a time and can provide an 80% charge in 30 minutes. Vehicle owners must follow normal parking limits in each location.

Charging rates are based on the amount of kilowatts per hour consumed while the electric vehicle is charging. The rates are \$0.20/kWh for the Level 2 chargers and \$0.25/kWh for the Level 3 charger. Car owners are able to use an app to determine if the charging stations are available or in use, and can monitor their vehicle's charging status remotely from the app. Users would pay through a swipe pass that is connected

to a credit card. During the first year of operation, WGMLD will facilitate the operation of the charging station. Throughout the year, WGMLD will collect usage data to determine how the EV usage is trending.

WGMLD has always been forward-thinking when it comes to electric vehicles. The department has an Electric Vehicle Smart Charging program which offers electric vehicle and plug-in hybrid electric vehicle owners a free or discounted Level 2 charger in exchange for allowing WGMLD to decrease the charging speed during periods of peak energy usage to help control the load on the town's distribution system.

The department also has its own electric vehicle, a 2019 Nissan LEAF, which replaced their previous 2017 LEAF. The LEAF is used by the Engineering Department when traveling out in the field. Additionally, WGMLD brings its electric vehicle to the local farmer's market to promote the Electric Vehicle Smart Charging program, which currently has 19 participants.

"WMGLD is excited to help move public charging forward," said WMGLD General Manager Peter Dion. "The locations that were chosen will benefit both the town and the public." ∞



Veterans Field charging station

Mitsubishi Heat Pump Rebate Program Expanded

MMWEC and Mitsubishi Electric have wrapped up a successful pilot Muni Heat Pump Rebate Program, and are announcing plans to extend the program to customers of additional participating MMWEC Members.

The pilot program, which began in September 2019 and ran through the end of the year, allowed customers to receive an instant manufacturer's discount off the cost of a qualifying Mitsubishi ductless mini-split heat pump system as well as a matching rebate from their light department upon completion of installation. The pilot was part of an effort to encourage cleaner and more cost-effective solutions to home heating and cooling. The heat pump program supports beneficial electrification and their important role in helping to meet current and future carbon reduction goals in the state.

Municipal light departments in the communities of Boylston, Groton, Holden, Paxton, Princeton, Shrewsbury, Sterling, Templeton and West Boylston participated in the pilot. The program has now been expanded to include customers of the municipal light departments in Ashburnham, Chicopee, Holyoke, Hull, Ipswich, Marblehead, Peabody, Russell, South Hadley and Wakefield.

Ductless mini-split heat pumps allow homeowners to section their homes into multiple zones with separate thermostat controls for each interior unit. This allows customers to more efficiently regulate their heating and cooling needs through their home, while saving money.

Heat pumps work by moving existing heat instead of generating new heat, which can cut down energy use by ducted systems, such as furnaces, by as much as 50 percent.

"We are pleased to be able to offer the Muni Heat Pump Rebate Program with Mitsubishi to more MLP customers," said MMWEC Energy Efficiency Program Manager Joe Coles. "Heat pumps can save customers money, while reducing carbon emissions."

Customers participating in the program are permitted to purchase one or two single-zone heat pumps with a manufacturer's discount of up to \$300 each, or one multi-zone heat pump with a discount of \$500. Additional information can be found on the MMWEC Home Energy Loss Prevention Services (HELPS) website, www.munihelps.org. Restrictions apply. The program is expected to run through December 31, 2020, or until all funds are exhausted. ∞

Marblehead Electrifies with New EV, Chargers

Marblehead residents are seeing a new electric vehicle (EV) traveling throughout town. The Marblehead Municipal Light Department (MMLD) has purchased a 2019 Chevrolet Bolt for the town's Building Department.

The Chevrolet Bolt, which was purchased in December 2019, will primarily be operated by Rich Baldacci, Marblehead Building Commissioner, who estimated that the car will be driven an

average of 40 miles each week. Baldacci said it will likely be driven by other town inspectors as well.

MMLD has supported EV usage by participating in National Drive Electric

Week events and through its Scheduled Charging Program, which offers free and discounted EV chargers for its EV-owning residents. The town's building located at 80 Commercial Street includes a public EV charger that was installed as part of the building's recent renovations to increase its energy efficiency. The decision to purchase an EV for the town was the result of a brainstorming session at an MMLD board meeting in January 2019.

"MMLD discussed what tangible things we could do to demonstrate our commitment to a more renewable future," said MMLD General Manager Joseph Kowalik.

As a result of that discussion, MMLD, along with Marblehead's town manager and town planner, researched different renewable avenues and discovered there were grants available through the Massachusetts Department of Environmental Protection (DEP). MMLD applied for grants to help support the purchase of both the new EV and seven Level 2 EV chargers to be installed in town. The town approved funding for its portion of the projects in late 2019.

Kowalik said he looked to Kevin Sullivan, general manager of Ashburnham Municipal Light Plant (AMLP), for EV advice and

insight since AMLP purchased a Chevrolet Bolt for its department last year.

"Kevin Sullivan's enthusiasm about EVs helped cement our decision to move forward," Kowalik said.

The Bolt is eight times more efficient than the gas vehicle it replaced.

"The Bolt is a mobile billboard for EV use by town departments," Kowalik said. "We hope it inspires more people to drive electric."

The Chargepoint Level 2 EV chargers are expected to be installed in Marblehead in the spring. Kowalik said MMLD hopes to leverage additional grants through both state and federal agencies to bring additional EVs into the town's fleet. ∞



Marblehead staff with the town's new Chevy Bolt

Warm Winter... continued from page 1

Despite having to revamp their forecasting process, the Emerging Technologies team successfully identified the peaks in December, January, and February. While it's too early to say if March will follow the same suit or revert back to historical weather trends, the team is prepared to make those forecasts. ∞



Left to right: NEPPA Executive Director Bonnie Biocchi, MMWEC Director of Communications & External Affairs Kate Roy, Middleton Electric Light Department General Manager Michael Cloutier, and MMWEC CEO Ron DeCurzio attend a meeting with Congressman Seth Moulton's office as part of the APPA Legislative Rally in Washington, DC in February.



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