

ELECTRIC SUBCOMMITTEE
Meeting of Wednesday, January 13, 2021
Virtual/Zoom ELC Meeting
7:00PM

A meeting of the Electric Subcommittee was held on January 13, 2020 at 7:00 pm. It was a virtual/Zoom meeting format due to the current COVID-19 pandemic.

With a quorum in virtual attendance, Mr. Mootafian called the meeting to order at 7:00 p.m.

Subcommittee Members present: Nishan Mootafian, James Engel, William Craft, Whitney Hatch, Michael Schaaf, Jonathan Blair, Dylan Lewellyn, Ray Lezynski, Jeff Civitarese

Guest(s): Michael Johnson

Subcommittee Members not present: Edward Rauscher

Recording Secretary: Kathleen Reed

Abbreviations used: ELD, Electric Light Department; ELC, Electric Light Committee; IWI, Ipswich Wind Independence; KW, kilowatt; MW, megawatt

I. Citizens' Queries

There were no citizen queries presented to the ELC.

Mr. Craft raised several issues under this category. He referenced an article published in the *Boston Globe* on January 2, 2021 in which a "monster" wind turbine was described as upending the energy industry. Those present were vaguely familiar with the magnitude of those wind turbines; however, it was not clear what the technology prescribed for that use was at this point. The 2.3 MW unit that was discussed with GE required a more steady wind columns, etc. Mr. Craft referenced an article in the *New York Times* published on January 6, 2021 referring to the cost of the installing of solar that is reportedly becoming increasingly expensive. It was agreed that is difficult to predict the evolving issues associated with the solar industry. He referred to recent MIT research noting that carbon dioxide batteries have had some breakthroughs in size (smaller) and capacity (greater).

Action: Mr. Craft will forward his "cheat sheets" on the above-referenced subjects to Mr. Blair for informational purposes.

II. Approval of Minutes - December 2020

The draft December 9, 2020 minutes and the minutes of the special meeting held on December 3, 2020 had been distributed to the ELC for review prior to the meeting. Mr. Lewellyn stated that he was not present at the December 3, 2020 meeting and that his name should be removed from those in attendance. A motion to approve the minutes as presented was made by Mr. Engel and seconded by Mr. Schaaf. Upon motion duly made and seconded, it was

Voted: To approve the minutes of December 3, 2020 with the removal of Mr. Lewellyn's name in those listed as in attendance. The motion passed, and Mr. Mootafian abstained from the vote due to his absence at that meeting.

. Voted: To approve the minutes of December 9, 2020 as presented. The motion passed unanimously.

Action: Mr. Engel requested that the attachments associated with the minutes be posted online when minutes are posted. Mr. Blair agreed to this request.

III. Review and Discuss Performance and Future of ELD's Peak Reduction Program

Mr. Blair reviewed the Peak Reduction Performance sheet for July 9, 2020 as a typical example of regional demand in thousands of MWs vs. KW. There is a strong correlation between the local peak and the regional peak. The actual load vs. apparent load was reviewed. The apparent load refers to what is being metered at the High Street location.

The performance and projection of the peak reduction program as it relates to financial performance was reviewed. The forward capacity market (the previous ELD strategy) is dictated on a rolling four-year forecast for what is anticipated to be the capacity value in New England. The ELD committed their 9MW in the power plant to that operation in exchange for being available on demand. This commitment was limiting in terms of flexibility. In exchange for that commitment in 2018, the ELD was awarded a net profit of approximately \$440,000 annually. However, the market is waning, the generator capacity is growing, and the value of the capacity on the grid is falling which was predicted. These are the factors that led to the current strategy for peak reduction. The goal is to keep the power plant viable as the future value is not known at this point, and the cost to decommission the power plant is prohibitive. It was requested that assumptions that are made be outlined on future exhibits.

MMWEC lifetime dispatch results for Ipswich were reviewed. Capacity and transmission have values assigned to them and are quantified in dollars per KW hour per month. Capacity is metered in the year prior to which it is charged. Since Ipswich was not on the production program last year, there is no peak reduction to refer to in regards to capacity. Given that the ELD is assuming the full burden of capacity in this transitional year, there are no projected capacity savings for this year and next year due to the failure to hit the July peak in 2020. The failure in July was a result of the substation signaling malfunction and not a power plant failure.

The subsequent five opportunities have been hit resulting in an avoided cost savings of approximately \$250K. The number of peak runs, the peak hit times, and associated costs with those runs were discussed. The full value of the R&S reduction (regional transmission system) was recouped and the peak patterns and associated costs were reviewed for the period of July 2020 through December 2021. Mr. Blair has asked MMWEC for additional information so that the ELD can continue to be proactive in their approach.

The basis for the net returns from 2020 and beyond includes values going out to 2025 and is high fidelity estimates of the market predictions. The calculation for the basis was typical generation, allowing for missing one run each year, assuming that the value capacity peak would be hit, and that the values would coordinate with the forecast. The peak reduction is a \$1M proposition with 60 percent coming from transmission and 40% coming from capacity. The program was described as successful and puts the ELD on pace in the forward capacity market and where the ELD would expect to be with the forecast when the decision was made to get out of the market. Some of the benefits, in addition to financial benefits discussed, are that the site has been reclassified from a major admitting source to a minor admitting source with the MA DEP and the fact that the facility can be taken offline as desired.

There was discussion regarding buying additional supply vs. reducing demand and any potential impact of using battery power generation capacity. It was suggested the projecting the impacts of battery leasing out financially should be a topic for future discussion.

The Commission voted, on the recommendation of the ELC, to take any realized savings from the program and put toward savings for the eventual decommissioning of the power plant, creating new carbon free generation, or investing in storage. There was lengthy discussion regarding the complex accounting mechanics of executing this vote. Mr. Blair suggested that any realized savings be observed as destined for the agreed upon purposes vs. transferring the savings to a specific designated fund while at the same time considering this when decisions and/or future projects are considered. It was agreed that legal advice and review and a review by the Town Auditor was warranted.

Action: Mr. Lezynski will reach out to the Town Auditor to discuss the accounting of savings that are realized through the peak reduction program and soliciting legal advice as appropriate.

Mr. Blair and Mr. Lezynski will make a recommendation to the ELC on this matter in February 2021.

IV. Wind Turbine Update

Mr. Blair reported that a developer, Green-RI, has expressed interest in the Wind II site that would appear not to have the complications of a new site in terms of abutter concerns and FAA licensing. The developing proposal was gratifying in that it is plausible that a future situation where an RFP would be developed for a company to take down and put up a new turbine on that site was a viable option. It will be important to review the parcel lease as other opportunities are explored.

Green-RI proposed coming in and taking down the defunct turbine, setting up another one while on site in a timeline within 2021. Mr. Blair has forwarded public documents to the requestor as well as the up tower wind data that was secured from Hyundai. Green-RI is reviewing the data and will deliver a more formal proposal at some point in the future. The importance of considering a RFP process, examining the terms of the existing lease, and soliciting legal advice was discussed. Mr. Blair will keep ELC comprised of developments. He did note the GE turbine is halfway through its forecasted life which is an important consideration as Green-RI has suggested that they would be interested in putting up two turbines, if desired.

Action: Mr. Blair will reach out to the parties involved in the Wind II matter and provide an update at the next meeting of the ELC.

V. FY22 Outlook – Budget Priorities, Goals, and Projects

Mr. Lezynski and Mr. Blair are currently working on the budget development and asked for input from the ELC on the issues that have been discussed in the past several months (wind, solar, battery). The ELC asked that the following items be considered in the budget development process:

- Consider the issue of underground wiring on High Street with regard to both economic and aesthetic benefits,
- Consider the dependability of various assets (i.e., feed line) with a focus on maintaining the assets to ensure that the capital is on hand or to consider making investments in asset maintenance or replacement,
- Consider the options of battery power and associated implications,

- Consider the anticipated report and any suggested adjustments to the conservation and sustainability fund,
- Consider the billing system metering issue, and
- Consider the sustainability initiatives and rebates and incentives programs.

Action: Mr. Blair and Mr. Lewellyn will schedule a meeting to include Mr. Craft and Mr. Schaaf to discuss this subject in greater detail.

Mr. Blair will introduce the first draft of the budget to the ELC in February 2021.

Mr. Engel noted that the replacement of major fossil consumers with electric service and the effects on substation capacities, transmission and, distribution needs to be considered in the near term. He requested that the ELD get involved in the Green Communities projects and take advantage of associated available funds.

VI. Manager's Update

Mr. Blair reported the challenges of the pandemic as well as COVID fatigue currently affecting the ELD personnel. The focus remains on cleanliness and caution. The impacts are far reaching in terms of affect on interrupted capital projects due to personnel issues with health concerns, the impact on the receivables, and staff morale due to the pandemic.

Mr. Lewellyn reported that receivables continue to be slow and that the situation is being monitored closely. Given that commercial customers have to obtain licensure, etc., there was a temporary positive impact on past due accounts.

Action: Mr. Lewellyn will provide an update on the status of the receivables and will make recommendations to the ELC in February 2021.

Mr. Blair will attend the kick off meeting next Friday when MMWEC will work to assemble their Board. Mr. Blair anticipates joining the Board and has made it clear that he intends to fully participate in the process to ensure its proper execution.

Action: Mr. Blair will share with the ELC the timeline and progress report that he expects receive at the next MMWEC meeting.

VI. New Business

Mr. Schaaf acknowledged and commended Mr. Blair and his team's sound management and forward thinking in putting together the peak reduction program that resulted in additional savings while at the same time avoiding a financial slide that the previous position would have resulted in. Mr. Mootafian seconded that sentiment.

There being no further business, and after a motion for adjournment was made by Mr. Hatch and seconded by Mr. Engel, it was

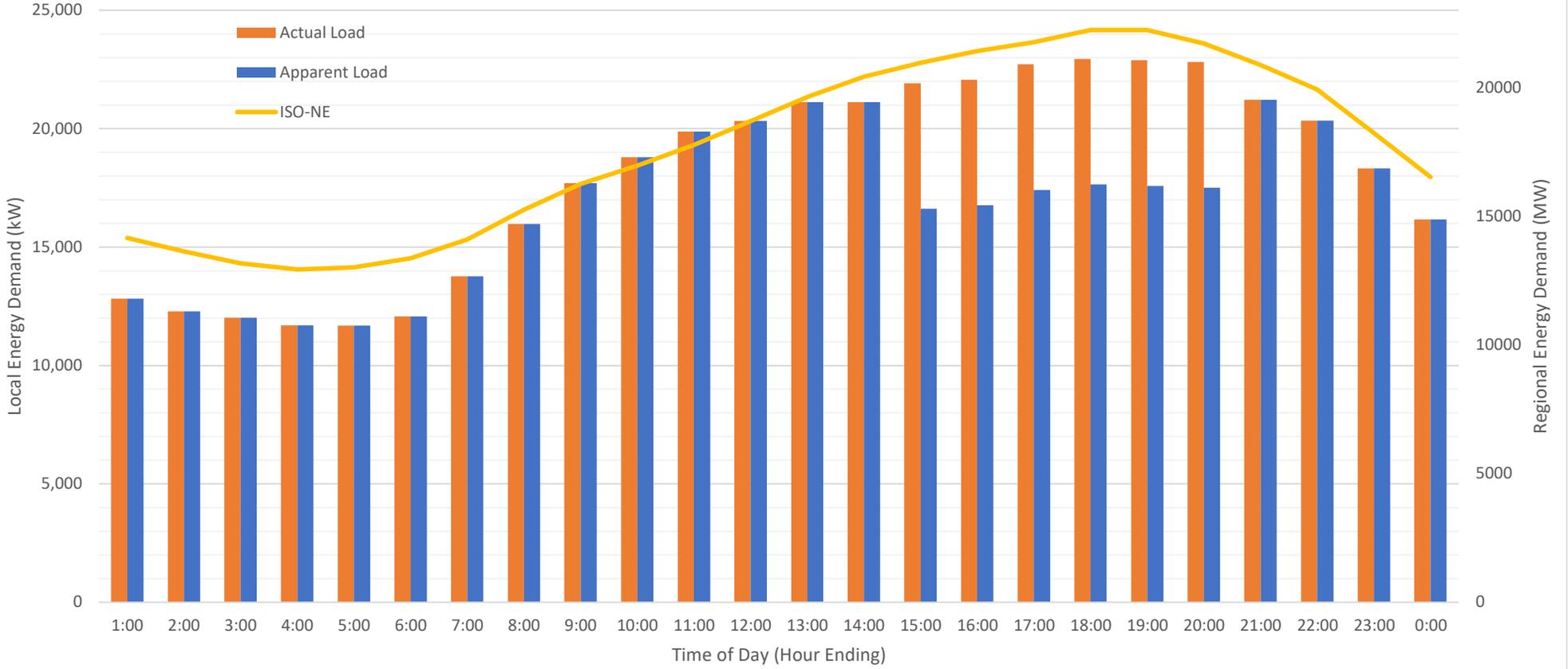
Voted: To adjourn the meeting of the ELC at 9:11 pm. The motion passed unanimously.

The next meeting of the ELC will be held on February 10, 2021.

Respectfully submitted,

Kathleen Reed, Recording Secretary

Peak Reduction Performance July 9, 2020



Performance & Projection of the Peak Reduction Program

