



HINGHAM MUNICIPAL LIGHTING PLANT

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Board Members

Laura Burns, Chair
Michael Reive, Vice-Chair
Tyler Herrald, Secretary

REGULAR MEETING HINGHAM MUNICIPAL LIGHT BOARD

August 9, 2023
Zoom Meeting
<https://us02web.zoom.us/j/86746350375?>

Meeting Called to Order

A regular meeting of the Board of Commissioners of the Hingham Municipal Light Plant (HMLP) was called to order by the Board's Chair, Laura Burns, at approximately 7:30 am on Wednesday, August 9, 2023, via Zoom.

Present:

Board Members: Laura Burns, Chair
 Michael Reive, Vice Chair
 Tyler Herrald, Secretary

HMLP: Thomas Morahan, General Manager
 Mark Fahey, Asst. General Manager
 Joan Griffin - Business Manager
 Stephen Girardi, Engineer
 Samir Alrifai, IT Manager
 Ellen McElroy, Customer Service
 Brianna Bennett, Sustainability Coordinator

Ms. Burns read the following disclaimer into the record:

This meeting is being held remotely as an alternative means of public access pursuant to Chapter 107 of the Act of 2022 and all other applicable laws temporarily amending certain provisions of the Open Meeting Law. You are hereby advised that this meeting and all communications during this meeting may be recorded by the Hingham Municipal Light Plant in accordance with the Open Meeting Law. If any participant wishes to record this meeting, please notify the chair at the start of the meeting in accordance with M.G.L. c. 30A, § 20(f) so that the chair may inform all other participants of said recording.

Ms. Burns asked if the Board could approve the meeting minutes. This was the fifth agenda item but it will be addressed first.

Approve Meeting Minute

- Meeting Minutes 5/16/23
- Meeting Minutes 6/6/23
- Meeting Minutes 6/13/23
- Meeting Minutes 6/27/23

Mr. Herrald submitted a few minor changes that were submitted several weeks ago and Mr. Morahan updated the minutes accordingly. Mr. Reive stated that there was a date that needed to be updated as well. Ms. Burns stated that she had a change on the May 16, 2023 minutes regarding Board reorganization.

Motion to approve all four sets of minutes.

Mr. Herrald: “Aye”

Mr. Reive : “Aye”

Ms. Burns: “Aye”

Discuss TOU (Time of Use) Rate Technical Issues

There are four (4) pathways that have been identified as possible next steps for implementing a TOU rate in Hingham. HMLP originally intended to replace each of its current AMR meters with an AMI meter that could allow TOU until eventually swapping over the entire system to AMI/TOU. However, it has come to HMLP’s attention that this is not feasible with the technology. Itron, HMLP’s current metering company, informed us that we cannot use AMI meters on our current software solution. To use AMI on the current system, we would need to replace our software of Choice Connect (current) with Tantalus and swap out about 20% of the meters.

HMLP installed its current AMR metering infrastructure in 2014, almost 10 years ago, for \$700K (not including labor). The existing infrastructure can last up to 20 years. HMLP installed Choice Connect software almost two years ago for \$150k.

The cost to convert to AMI is approximately \$3 million for the hardware, not including labor costs.

1. Switching to TOU/AMI Compatible Software

HMLP would switch from the Choice Connect system to the Tantalus system and replace a minimum of 20% of the meters with AMI meters. This would put HMLP on a clear migration path towards getting an AMI system, but it would be forgoing a lot of the recent investments made in the metering infrastructure.

Cost: Tantalus \$175K (estimated), Meters (\$300/meter X 2,000 meters = \$600,000)

2. *Switching individual meters to updated AMR meter (HMLP pays)*

HMLP would purchase the compatible AMR meters for each customer that wants to participate in TOU. This would allow us to do a ~150-person pilot program and/or TOU with the current system, but we would have to pay to replace the meters a second time within a short timeframe if we want to convert to AMI. Also, if this program gets opened up to everyone, we could be looking at buying up to 10,000 meters that will need to be replaced in a few years anyways.

Cost: Meters (\$300/meters X 150 meters =\$45,000)

3. *Switching individual meters to updated AMR meter (customer pays)*

HMLP would give the customers the option to purchase the compatible AMR meter if they would like to join the TOU program pending an eventual switch to AMI. The customer would have a stake in getting the most out of the TOU and achieving payback/savings. HMLP would not be purchasing meters multiple times if it does switch to AMI.

Cost: Meters (\$300/meter, HMLP does not pay)

4. *DIY solution to capture data from current meters*

HMLP would have Cogsdale, the billing system, perform a customization that would enable data collection from the meters and allow TOU. This option would change the way the bills could be read or understood. There would no longer be charges/readings that the customer could see like they can now.

Mr. Morahan explained that we thought we could accumulate reads into Cogsdale but we would have to create a “virtual” read and if we missed a read, it could cause a bigger problem trying to create a read.

If we have to purchase new AMR meters at \$300/each we will have to ensure they have three (3) registers to enable HMLP to calculate the reads correctly.

HMLP is awaiting more information from Cogsdale on option #4 but it is expected to cost in the vicinity of \$50k for this type of customization.

Ms. Burns asked if with Option #1 to replace 20% of meters and switch to Tantalus, because it is mesh, do the meters have to be spread all over town. Mr. Morahan stated that the meters would have to be strategically placed throughout the town. The pilot would have to be a controlled number from a cost perspective.

Mr. Herrald asked how long any of these solutions may take to implement and Mr. Jeff Jones stated that it would take approximately one year due to the number of interfaces.

Mr. Morahan's fear with the Cogsdale solution is that we are moving the data collection up to Cogsdale and if there is any glitch, we could have problems with "virtual" reads. Ms. Burns restated the concern over reliability. Mr. Reive asked how it would be if we went to a completely new system and if so, would it give HMLP the flexibility for the future. Mr. Morahan stated that it would cost approximately \$3 million to go to AMI but that figure does not include labor. Ms. Burns acknowledged that this system will need to be upgraded within 10 years but it is just a matter of figuring out how to get to that point. Meters have a life of approximately 20 years. Mr. Reive stated that the technology is always changing and the prices are dropping.

Mr. Girardi stated that the new AMI systems now give people control of their own usage but if we wait for an overall replacement then the features and advantages will be more established. He also stated that "as you go down the road, technology wise, it is going to change anyways but the meter itself will still be doing the same thing." Ms. Burns believes there is an advantage to waiting a few years before switching the whole system. She would like to figure out a way to do a TOU program that people can opt into between now and then. In addition, Ms. Burns believes it is "scary" to think about trying to do another \$3 million capital investment when we already have a very large capital project that is still not funded. Ms. Burns would like to have the opportunity to talk to Mr. Morahan offline and better understand all the options. Mr. Herrald would like more information about option 4 (DIY solution to capture data from current meters) if that is even viable. Mr. Reive would like a summary of the options so that he can get more clarification and have all the data in one place. Mr. Morahan explained that HMLP was originally thinking about writing something internally to create the meter reads but we just don't know what Cogsdale can do at this point. We need to ensure that if Cogsdale provides a potential solution that it does not have bugs in it. Mr. Alrifai interjected that he does not believe that the Cogsdale solution is the right and professional solution because in TOU billing you need two unique reads coming from the meter, one for "on peak" and one for "off peak". Without the correct meters, we will be "playing with the data" to calculate the read. In addition, he cautioned that Customer Service will not have an easy task trying to explain information on a bill to a customer when one piece of data is a "virtual" read and the other is an "actual" read. Mr. Alrifai stated that even if a customer goes out to their actual meter to check a read, the reads will be totally different. In addition, Mr. Alrifai also stated that collectors can go down in storms and other emergency situations so we are in danger of losing data. He would like a professional system where the meter returns and stores the data for that billing cycle. Mr. Herrald agrees with Mr. Alrifai.

Mr. Girardi and Mr. Jones stated that when the decision was made back in 2012 to go with AMR, HMLP went backwards to the 1960s. Other municipalities were building AMI networks and we went with AMR. Technology is a moving target, but AMI would have given HMLP the ability to upgrade software through the air so reprogramming of meters could be done electronically rather than in person. According to Mr. Girardi, the Choice Connect network which works with our AMR meters that was released 2.5 years ago has been a "god send" because we can see transformers loading and real-time outages (before a call is even received by Customer Service). If we were to upgrade to AMI, the Choice Connect network would have to be replaced. Mr. Morahan reiterated that if we were to go to AMI and the Tantalus system, we

would still have to replace more than 20% of the meters because it has to be a mesh network. Mr. Jones stated that the Tantalus system was presented to HMLP with Itron meters but he believes if we are going to make a forward-thinking investment then we do not have to go with Itron meters. Mr. Girardi explained that Tantalus is a meter or an attachment to the meter and we would have to make a network that would leapfrog to each other and then back to HMLP for it to be successful. Ms. Burns thanked everyone for their input and will plan to book time with Tom to get more in-depth knowledge of the options. Mr. Herrald expressed concern with the number of registers that the meters have as he does not want to limit us in the future. Mr. Alrifai and Mr. Girardi agree with Mr. Herrald about having at least three registers and an option to use a fourth register. Three registers would allow us to do “off peak”, “on peak”, and “super peak”. Ms. Burns stated that Concord is looking at a three period TOU rates. Mr. Girardi added that if we were adding meters that had three or four registers, it will cost more money and you can add ERTs to the AMI. There are several media packages out there, i.e., GE, Itron, Nighthawk, Honeywell, that are all compatible. Ms. Burns feels that we need more information and can have offline conversations with Mr. Morahan, Mr. Girardi, and/or Mr. Alrifai.

Meter Charge for AMR Meter Opt-Out

Ms. Burns asked if we could postpone the Meter Charge for AMR Meter Opt-Out until the next meeting. In postponing the discussion, HMLP can contact the seven or eight customers that are affected and notify them of the meeting and give them an opportunity to participate in the discussion. Ms. Burns asked Mr. Girardi to explain his cost spreadsheet of doing the Opt-Out meter reads. She questioned the difference between the *standard rate* and the *standby rate*. Mr. Morahan explained that the *standby rate* is used when the meter technician is on during the collection period. Ms. Burns questioned whether the number of customers was seven or eight and it was confirmed that it should be seven. Mr. Morahan explained that the number of customers may change because we have had some of the Opt-Out customers actually Opt-In and other customers opted to go with the manual read meter. Ms. Burns stated that she is recommending that a fee of \$30 is charged for the Opt-Out, rather than \$40. Mr. Morahan commented that if we go with a TOU rate, this would give people an option, to go with the Opt-Out. All members of the meeting agreed to postpone the Meter Charge for AMR Meter Opt-Out discussion.

Low Income Discount Rate

Ms. Bennett shared a spreadsheet, using US Census data, on the total number of people that live in Hingham, total number of residential meters, and what the “potential” number of people that could be below the poverty line. She calculated that it could be anywhere between 3.2% and 10.4% of the total number of people. She also looked at the households and calculated that it is a 2.7%. Ms. Bennett stated that HMLP currently has 11 residents on financial and medical hardship so she is not expecting to see much higher percentages. She also did rate estimates over the next three years as the low-income rate would only apply to the Customer Charge and the Cap, Dist & Transmission section of the billing statement. The numbers presented on the spreadsheet do *not* include the discount on the Customer Charge. The spreadsheet shows that if HMLP discounted at 10% that the savings would be around \$4 and if it was 30% it would be

approximately \$12. Ms. Burns asked what the average bill is for our customers. Mr. Morahan stated that an average of 500 kWh/month is what would be the average.

Ms. McElroy clarified a statement made by Ms. Bennett earlier when she said that there are only 11 customers on medical and financial assistance. Ms. McElroy stated that a customer currently ***must have both*** medical and financial hardship to ensure that their service is not interrupted; however, there would be many more people on just financial hardship. Ms. Burns appreciated that Ms. McElroy clarified this point. Ms. Burns referenced the application for a low-income discount rate and they have a long list of programs that they allow a customer to choose from in order to qualify. Some of these programs will also be for veterans and seniors along with residents living in public housing. Public housing would allow HMLP to easily verify, by address alone, whether a customer is eligible. Ms. Burns asked Ms. Griffin which programs she believes we should include. Ms. Griffin stated that she would accept the list of programs because then a customer will not ask why their specific program does not qualify for the rate. In all cases the customer would have to provide verification, with the exception of those in public housing. Mr. Reive sees this low-income discount rate as an incentive for people to convert to electric heat pumps as part of the rebate program. He would like to incentivize those that need it most. Mr. Reive would like to see some projections to have an idea if someone does convert to all electric with heat pumps what that is going to do to their electric bill and how our discount rate is going to be affected. Ms. Burns also stated that Massachusetts will give state grants to help people below a certain income level and the incentives are larger. She stated that UFS, the company that did the HMLP rate study, suggested that 20% is very common but also cautioned that we set a rate that is reasonable because lowering the rate is a very difficult thing to do. She asked Mr. Morahan and Ms. Griffin about the impact that this low-income rate, coupled with the six percent rate increase, will have on the revenue requirements. Mr. Morahan does not believe that the low-income rate will have a significant impact on HMLP. Mr. Herrald would like to get more data on the number of Hingham residents who may qualify. Mr. Morahan stated that we can count the people in public housing but it may be difficult to get other data. Ms. Burns felt that we may be able to get some relevant information from the Treasurer with means tested tax breaks. Ms. Griffin stated that the Treasurer would only have information on people who *own* homes in Hingham and a larger number of low-income would not own homes. In addition, Ms. Griffin suggested a pilot program of a year where HMLP can determine what the impact of the rate would be on revenue. Ms. Griffin stated that we have the right to change our rates at any point in time. Mr. Reive asked if we could create a tier system based on kilowatt hours. Mr. Morahan and Mr. Herrald would prefer to start simple with 10% and then evaluate after a year. Mr. Reive would like to have a higher discount for those that are all electric.

Ms. Bennett created a sample application and a list of the questions with the programs that are in place. Ms. Bennett will share the document with everyone. Mr. Morahan will share this document with Customer Service for their ideas.

The next meeting will be Tuesday, September 12, 2023.

Motion to adjourn the meeting.

Mr. Reive: "Aye"

Mr. Herrald: "Aye"

Ms. Burns: "Aye"

Meeting adjourned at 9:00 am