



HINGHAM MUNICIPAL LIGHTING PLANT

31 Bare Cove Park Drive
Hingham, MA 02043-1585
(781) 749-0134 FAX (781) 749-1396
www.hmlp.com

General Manager
Thomas Morahan
tmorahan@hmlp.com

Laura M. Burns, Chairman
Michael Reive, Vice-Chair
Tyler Herrald, Secretary

REGULAR MEETING HINGHAM MUNICIPAL LIGHT BOARD

February 28, 2023
Zoom Meeting

<https://www.youtube.com/watch?v=WNcIo9jxXFM>

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 7:30 am on Tuesday, February 28, 2023, via Zoom.

Present:

Board Members:

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

HMLP:

Thomas Morahan, General Manager
Stephen Girardi, Engineer
Joan Griffin, Business Manager
Ellen McElroy, Customer Service
Brianna Bennett, Sustainability Coordinator

Guests:

Mark Beauchamp – Utility Financial Solutions, LLC
Michael Johnson – Utility Financial Solutions, LLC

Other:

Members of the Public

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're hereby advised that this meeting and all communications during this meeting may be recorded by the Town of Hingham 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.

The Light Plant is recording this meeting.

Ms. Burns asked if anyone other than HMLP wished to record the meeting. No one responded affirmatively.

Agenda items for the next HMLP Board meeting, scheduled for March 14, 2023:

- Discuss the Light Board's proposed article for the Town meeting warrant asking permission to locate solar arrays on Town property. Hingham Select Board has asked the Light Board to post-pone the request until next year.
- Deidra Lawrence (HMLP Counsel) and John Coughlin (Town of Hingham Counsel) will participate in this meeting to discuss the legalities of the Light Plant asking the Town of Hingham to borrow money from Hingham Light to install solar arrays on Municipal Buildings.

First Topic of Discussion Today:

To discuss the Cost-of-Service Study results with Utility Financial Solutions, LLC (UFS) Mark Beauchamp and Michael Johnson.

Mr. Beauchamp suggested a bandwidth of plus or minus 2% to an increase of six percent for each rate class. No rate class would see an increase greater than eight percent. All customers would see at least a 4% rate adjustment. UFS would work within that range of 4 to 8% to move the customer slowly towards cost of service to minimize the rate impacts on customers. He suggested a \$2 increase per year to the Residential Customer Charge. The current charge of \$8.86 would be increased to \$10.86 next year, and then to \$12.86 the year after, and so on. UFS would also develop a Residential All-Electric rate with a three-year rate plan.

UFS's Objectives:

1. Align customer savings with savings for the utility
2. Support strategic electrification
3. Protect low-income customers
4. Support energy efficiency & solar arrays
5. Ensure revenue sufficiency & stability
6. Provide for easy implementation

Cost of Service Questions asked by Ms. Burns (Answers provided by Mr. Beauchamp)

1. **Under a Time of Use rate, would cost be identified as being incurred in a particular time period and passed on from there to a customer class?** Answer: Yes. When introducing the Time of Use rate, you want to move slowly so not all the costs are buried in the On-Peak or critical peak time periods.
2. **Under the rate track described in the UFS presentation, different customer classes are shown as receiving different rate increases bringing the overall average rate increase to six percent per year for the next few years. What is the data underlying the different increases and how does it relate to different time blocks in a Time of Use rate scheme?**
Answer: UFS is suggesting a 4 to 8% increase. The rate design will show the overall impact of the increase on the rate class, and the affect the increase will have at different levels of usage. When UFS develops a Time of Use rate, it takes a sample set of HMLP's customers (i.e., 500 residential customers) and studies the dispersion of impacts. UFS will try to minimize these impacts as much as possible.

Mr. Beauchamp said there are three approaches to implement the Time of Use rate:

1. Opt- In – Everyone is on the standard Residential Rate unless they opt-in to the Time of Use Rate.
 2. Opt- Out – All customers are placed on Time of Use Rate unless they opt-out to the regular standard Residential Rate.
 3. Use a strategy – Implement Opt-In the first year to make sure your systems are in place. In subsequent years, move to an opt-out plan so you don't have large differentials.
3. **Is there a reason why there would be different customer classes in a Time of Use Rate regime?**
Answer: If Time of Use price signals are set correctly you will still need to have different rate classes due to different voltage characteristics and meter sizes, etc. There are four pieces of a cost structure that go into a demand charge; 1. power supply capacity, 2. transmission capacity, 3. sub-transmission investments, 4.

distribution infrastructure that's located near the customer. UFS prefers to pull the first three components out of the demand charge and roll it into the energy rates, typically the On-Peak energy. The only demand component that's left is the charge for the local distribution infrastructure. That demand charge differs primarily based on voltage.

4. **How are capacity charges assigned either to a time of day or to a customer class? And, how are transmission charges assigned, similarly?** Answer: Mr. Beauchamp used this example to answer: Market prices may be \$0.05/kWh, 24 hours a day, and you pay a transmission demand charge based on your contribution to the ISO's peak that is in a specific hour of the day or a month. The capacity charge gets assigned to that time period. It might be \$0.05 in the market but one has to add the capacity into the On-Peak period because you're incurring those costs and want to send customers the price single to move out of that time period. 95% of transmission charges are driven by peak contribution.
5. **Would the percentage of distribution costs which are not included in the Customer Charge vary by time of day?** Answer: UFS assigns distribution costs in one of two ways. Distribution costs are assigned based upon percent. If the On-Peak rate is \$0.15 and the Off- Peak rate is \$0.10, the \$0.15 gets more of the distribution cost. The Off-Peak would still get some of the charge because they are benefiting from the distribution. The second way to assign distribution costs is to add the average distribution cost to every kWh used., i.e. \$0.04 added to each kWh used.
6. **Questions about the current rate structure vs. Time of Use:**
(Ms. Burns asked if the Time of Use rate replaces a demand charge; and, what is left in the demand charge?)
Answer: The distribution charge is what is left in the demand charge and most of the distribution charges should go in the kWh rate. UFS prefers to roll the demand charge into the energy usage because it takes into account the diversity of the loads of different customers.

Discussion on Solar Credit Rate:

HMLP uses net billing and credits solar customers for the average cost of energy. Solar systems with less than 20 kW receive credit based on the average costs of energy purchased by HMLP. Solar systems with greater than 20 kW receive credit based on the average cost of the renewable energy purchased by HMLP, which is a lower credit. Mr. Burns suggested to the Board that they eliminate the differential between the two credits. Ms. Burns believes there are avoided costs, such as transmission, capacity and line loss, when people sell solar energy to HMLP. Ms. Burns believes that transmission costs are avoided because when the solar production leaves the solar array, it goes out to the street and into the house next door. This solar energy is sold to the customer at retail, which includes transmission and capacity costs that HMLP didn't have to pay for this solar energy. Ms. Burns asked if HMLP can recognize some or all of these avoided costs in the solar credit? Mr. Beauchamp stated that UFS uses a marginal cost model to determine the avoided cost value of all HMLP solar. He doesn't think solar is producing at the time the transmission capacity peaks are identified and advised that HMLP may see the credit go down, not increase. If the solar credit taken from this model decreases, he would recommend (depending on the customer impacts) the grandfathering of a solar credit rate for solar customers. For example, if Solar customers are currently receiving an \$0.08 credit per kWh, and the rate study identifies a value of \$0.05 per kWh, Mr. Beauchamp will come back to the board with some suggestions on how to handle the solar credit. Perhaps place everyone at the \$0.05 credit, or keep everyone at the \$0.08 credit? Or, HMLP could grandfather current solar customers at \$0.08 and new solar installation would be at the \$0.05 credit. These decisions are at the discretion of the Board.

Ms. Burns asked why HMLP would pay solar customers less for their excess energy than what they buy the energy for? Mr. Beauchamp explained that solar customers are placing their excess production on to the system, and are somewhat bypassing some of the distribution infrastructure; however, HMLP still has to have the same size wires to go between customers, and still has to be able to provide electricity to customers when solar production is intermittent. Therefore, you don't credit solar for the distribution. Ms. Burns said that Solar is credited for energy cost and nothing else. Mr. Beauchamp said he would probably add losses to the credit, which may increase the credit by 3 or 4 %. Ms. Burns asked why we wouldn't credit at Peak energy costs? Mr. Beauchamp said that UFS will look at the avoided cost value, determine how much solar is produced at the times of those peaks, and then see what that value is. That answers will come from the PV Watts data.

Mr. Reive suggested the PV Watts data doesn't take into consideration the shading in Hingham. He wants the solar credit to be higher to incentivize customers to put solar on their roofs and to increase production in town. He wants to see

improvement in the net metering model and believes the model is unfair to solar customers. He asked, why should solar customers produce solar in the afternoon, send their excess to neighbors, and then buy back that energy in the evening at a significant loss (higher price)? He doesn't think that the current system is fair and believes it is not encouraging people to install solar. Mr. Reive believes large batteries should be installed throughout the town to address this issue.

List of Questions asked by Mr. Herrald (Answers provided by by Mr. Beauchamp)

1. **What would UFS suggest in terms of Time of Use rates and how the prices and structure of those Time of Use Rates might change over time?** Answer: The ultimate goal is to get to the full Time of Use Rate, but the interim steps is to look at the customer impacts. Typically, the Time of Use Rate is introduced in four or five phases, depending on the differentials.
2. **Does the proposed rate structure have the appropriate balance between rates charged to residential, commercial, and industrial customers? Would you suggest a different balance of rate structure by customer type that we currently have?** Answer: The balance on the rate adjustment is between that 4 to 8%. UFS looks at how HMLP should structure those commercial rates between the small, medium and large commercial classes. The Cost-of-Service study gives HMLP guidance on this and suggests HMLP to eventually place all customers on the Time of Use Rate.
3. **Is our current renewable generation pay back rate structure aligned with best-in-class practices across the country? And, is HMLP appropriately compensating customers for solar (renewable) generation? Does that rate structure appropriately compensate HMLP for providing customers the free option to sell power to us at a predefined rate and for grid balancing?** Answer: HMLP uses a net billing and USF believes this is the best-in-class approach to compensating solar customers.

OVERVIEW:

1. Develop a Bandwidth – a Rate Adjustment Plan for a 6% rate increase (will vary between +2% and - 2%) Most customers will see a 6% increase.
2. Implement a low-income discount. Low-income discount is an arbitrary number and is not cost based. The Board would need to decide what percentage would be appropriate.
3. Move the Customer Charge towards the Cost-of-Service with a \$2.00 increase, per year, for the residential customer charge. Develop a three-year rate plan, and then do another Cost-of-Service study at the 3-year mark.
4. Develop a Residential All Electric Rate – Is HMLP interested in a Residential All Electric Rate?

Ms. Burns asked if there were any comments from the public about what was discussed today. There were no comments.

Motion: Ms. Burns entertained a motion to adjourn.

Roll Call Vote:

Mr. Reive: Aye

Mr. Herrald: Aye

Ms. Burns: Aye

The meeting adjourned at approximately 9:30am.

Documents/ Shared During Meeting Titled

Titled: Utility Financial Solutions, LLC: Power Point, Draft: Electric Cost of Service Study

Titled: Goals for HMLP Rate Setting

Titled: Cost of Service Study Questions by Laura Burn

Titled: Cost of Service Study Questions by Tyler Herrald