

**MINUTES OF REGULAR MEETING
BURLINGTON ELECTRIC COMMISSION**

Wednesday, June 14, 2023

The regular meeting of the Burlington Electric Commission was convened at 5:30 pm on Wednesday, June 14, 2023, at Burlington Electric Department at 585 Pine Street, Burlington, Vermont and virtually through Microsoft Teams.

Channel 17 was present to record this meeting.

Commissioners Lara Bonn, Jim Chagnon, Robert Herendeen, Bethany Whitaker, and Scott Moody were present.

Staff members present at 585 Pine Street included Paul Alexander, Rodney Dollar, Munir Kasti, Paul Pikna, Darren Springer, Paul Nadeau, Emily Stebbins-Wheelock, and Colleen Rouille (Temporary Board Clerk).

Staff members present via Microsoft Teams included James Gibbons and Amber Widmayer.

1. Agenda

There were no items added to the agenda.

2. May 10, 2023, Meeting Minutes and May 16, 2023, Special Commission Meeting Minutes

Commissioner Herendeen made a change to the minutes in written form given to the temporary board clerk, Colleen Rouille. Commissioner Chagnon then made a motion to approve the minutes of the May 10, 2023, Commission Meeting; the motion was seconded by Commissioner Bonn and approved by all Commissioners present.

Commissioner Herendeen made a motion to approve the minutes of the May 16, 2023, special Commission Meeting; the motion was seconded by Commissioner Chagnon and approved by all Commissioners present.

3. Public Forum

Ms. Anne Coss, Mr. Tate Agnew, and Ms. Wendy Watson were present for the meeting at 585 Pine Street.

Ms. Anne Coss, resident of 120 Lyman Avenue for 43 years in Burlington stated that with the recent changes in lighting on Lyman Avenue that are being implemented by Burlington Electric, she has some concerns. She said there are three key issues. The first issue she brought up is the aesthetics of the new poles that were put on her street that she believes are out of character for a family neighborhood. The height and size of the poles produce a light in her home that was not there before the change. She called Commissioner Herendeen who helped with putting shields up. This helped but the light issue is still a concern to her. The second issue is the illumination of the light poles. L.E.D. lights are efficient and have good qualities, but the color and projection of them is unacceptable on her street. The third issue is the number of poles has also changed. There were corner intersection lights and one utility light pole on the center of the street that worked well. Two new poles have been added on the street. Between Wells and Richardson Street there is now continuous lighting between those two streets. Ms. Anne Coss said that gives the resident's daylight lighting twenty-four hours a day. She has no refuge from the influx of light coming into her house. Ms. Coss believes this is a perfect example of light pollution. She does not feel any safer and does not believe the level of light is necessary. She compared her street to others in the city that look different and have different utility poles. She mentioned the current calendars that Burlington Electric Department puts out with the drawings the kids submit and said they promote turning off the lights instead of putting on more. She wants to know what solutions can, if any, happen to rectify her concerns and how Burlington Electric produced the engineering plan on her street, Lyman Avenue.

Tate Agnew from 146 Lyman Avenue spoke next. He stated that he lives on the corner of Lyman and Wells. There are three lights on that corner, one that shines into his bedroom from Wells Avenue. He said, too have three lights on one corner is overkill. Two of these have been put in over the past few years.

Ms. Wendy Watson, who lives in the same house, then spoke and said that she appreciated that Commissioner Scott Moody came out to see the lighting the previous night. He observed the light issues that the neighborhood is dealing with. She was under the impression that they would get smaller, more palatable streetlights. When the industrial looking poles were installed, she was disappointed that they were not a better fit to her neighborhood. She also said that the lights were very bright, and it is worse because they have a corner lot. She walked with Commissioner Scott Moody and showed him the problems that she is having with the lighting. She does not like the look of the industrial light poles. Other nearby neighborhood light poles were referenced, and these lights look better aesthetically. All three did not understand why the industrial lights were installed in their neighborhood and not others. Ms. Wendy Watson then read an email from John Davis, a neighbor that said he has a friend that has a light meter and asked if there is a design standard for lighting foot-candle level that can be measured against? Ms. Wendy Watson asked if the lighting that is not uniform on her corner has been measured?

Commissioner Scott Moody then asked Munir Kasti, Manager of Engineering and Utility Services, and Paul Nadeau, Director of Engineering, to address the concerns and questions that have been brought up in the conversation. Munir Kasti started by saying he would go over the history of street lighting in the City of Burlington. He stated that that in 2014, the Burlington Electric Commission formed a committee to produce a street lighting standard policy. This committee included two residents, Commissioner Bob Herendeen, and Burlington Electric Department. The committee looked at the street lighting in the city and the recommendation was to follow the Illuminating Engineering Society recommended lighting levels to protect Burlington Electric Department and residents from liability. The committee looked at the type of fixtures to be installed, the elevation of the light when installed,

the standard light, height of the pole, twenty-two feet, twenty-five feet and thirty feet above ground. The consensus from the committee was that if you go lower in height, there will be more poles. They did not like that idea and it would cost more. They decided to stay within twenty-nine to thirty feet, for the arial system. For the underground system, because people do not want to see the wires coming from the wood poles, it was decided to go with a fiberglass pole so that everything is hidden inside. The standard color for these poles is grey and the fixture is also grey. That is the history of how the standard policy for streetlights came to be on a residential street. There are diverse types of light fixtures in different neighborhoods, and the policy states that these will be maintained until the stock runs out at which point, they will be replaced by standard fixtures and poles selected by Burlington Electric Department unless a new district has been named. On the streets where you see the other fixtures, there were replacements in our stockroom so the consensus was that they would be replaced by the same pole for consistency on that street. There were wood poles on Lyman Avenue, so they were replaced with the standard fiberglass pole and fixture. When the policy calls for doing an engineering design, it must meet the streetlighting requirement which looks at the average light on the street and the sidewalk. In this requirement, there are different light levels for residential versus downtown or other city areas. In the latest recommendation, the lighting level in the residential area for lights and the sidewalks was dropped to the minimum level. This is the level Burlington Electric is trying to meet. For the sidewalk, the recommendation is a score of .2 foot-candle level, and, on the road, it is .3 foot-candle level. Munir Kasti said that the design that was done on Lyman Avenue was at .2 foot-candle level. The Engineers look at the end of the life in twenty years so that the fixture will still meet the standard light level at that time. The light may be higher now so that the level is maintained at standard in twenty years. Also, on the intersections, the light requirement is higher because you Burlington Electric must account for the two roads. This is why there are multiple fixtures on an intersection which is accounted for in the design. Paul Nadeau said that the new lighting on Lyman Avenue allows Burlington Electric to go with a smaller wattage bulb at the southeast corner of Wells Avenue. The output of that fixture will be dropped by half. Munir Kasti said the light requirement in this intersection barely meets standards so the poles can not be moved, even by one foot. Anytime Burlington Electric reconstructs a street in the city, they are required to look at the street lighting and bring it up to the recommendations. Most City of Burlington streets would require an update.

Paul Nadeau said that the reason that the Engineers went with the fiberglass poles was because the circuit was all put underground, and this caused the wood poles to be removed and replace with the standard. Commissioner Scott Moody said that this subject has come up a lot, but this is a little different because it was a bigger change and more dramatic to the neighborhood than most. Commissioner Bethany Whitaker asked the if there is a process with the public before the new lights are put in. She feels like we are always behind this issue and would like to see a process where there is community engagement and notification beforehand. Paul Nadeau said a letter stating what will be happening on the street, that it will be lit to the recommended standards, and that there would be new poles was sent to all residents affected, which is the standard practice. On the letter, there is also contact information of the engineer that is designing the project. There were a few residents from Lyman Avenue who did call and ask for adjustments. The engineer tried to accommodate for as many of those as possible to adjust the plans, so residents were as happy as possible, while still not compromising the standard. Commissioner Whitaker asked if an in-person community forum would be better so everyone is on the same page. Paul Nadeau said there are only a few of these type of projects per fiscal year so that would be a reasonable thing to do. They would show the plan, where things are going to go, the illumination standards and the actual poles and fixtures being installed. This would give everyone a chance to ask questions and have a conversation ahead of the project.

Paul Alexander, Center for Safety, stated that this subject has come up several times. In 1996, the City Attorney gave a very definitive answer that Burlington Electric is mandated to meet the recommendations in the recent policy that has been mentioned. For every customer who calls, some say the lights are too bright, some say they are too dark, and the police have reached out several times. There was a significant claim that influenced the legal and insurance premium that Burlington Electric pays because of street lighting issue. The prior insurance broker and the current broker has made it clear not to go below the requirements. The City legal team gave another opinion in 2022 stating the same opinion on the requirements for street lighting. From risk management to insurance and legal liability, we can not go below standard.

Darren Springer, General Manager of the Burlington Electric Department stated that he is sorry that the public members present are feeling the way they are, and he appreciates that they came to the meeting to voice their concerns. He wanted to note that the changes that happened on Ferguson and Scarf Streets had to do with the street lighting requirements changing while they were in the middle of that project. They went back with the updated standard to look at it a second time and make accommodations there.

Light shields were brought up. Paul Nadeau said that this would not fix the issue since it would lower the light standard. Commissioner Herendeen stated that there some ideas that are being discussed such as a warmer light and dimming lights later at night that would require modern technology. He suggested that Ted Agnew do a project on this subject. He told him to contact him for information. In conclusion, it was decided that meetings with the Engineers would take place prior to any projects that would happen in the future. Munir has said that they would go to Lyman and Wells Avenue to see if shields can be installed assuming the light standards are still met. Also, lighting levels will be confirmed on these streets to make sure there is uniformity.

4. Commissioners' Corner

There were no Commissioner updates at this time.

5. GM Update

Mr. Springer stated that the 23-24 Strategic Direction is due, and BED is working on tweaks for consideration by the Commission in July for the 23-24 Strategic Direction and welcomes discussion with Commissioners who have ideas for updates that are needed (primarily for the Objectives).

The Governor has signed S. 137, which provides BED with another three years to continue using a portion of our efficiency dollars to support strategic electrification efforts including multi-family EV charging, geothermal test wells, and heat pumps. In addition, a pilot authority was granted for BED to test out new incentives to help "superusers" who are customers with a disproportionately large gasoline burden who would benefit from switching to an EV. Vermont Public Radio is covering this, and there has been some national coverage as well, as BED may be the first utility in the nation to design such a program. Commissioner Bethany Whitaker asked about how the super users are identified. The transportation bill has a component that includes moving Vermont towards a vehicle miles traveled fee. Darren Springer said that the incentive could be as simple as saying to the customer to send us an odometer reading or to self-certify a certain miles per year or more.

The Governor also signed a bill creating an RES workgroup, that BED will be a part of. Carbon Fee Ordinance – BED is working with Councilors on Ordinance and TEUC to provide information relative to the carbon fee ordinance. We hope something can be introduced soon, and that Committees can review in July.

Regarding EV charging, BED has several initiatives in the charging space currently, including grant applications, two new fast chargers that are installed and waiting to be energized at Pine St and Marketplace Garage, and the new chargers at the ONE Community Center which we will highlight at a press event on 6/13 that will focus on our 2022 Net Zero data. BED also has a cross-disciplinary and cross-division EV charging team working on mapping out expansion of charging for the city, and working with partners such as Parks & Rec, and DPW, in the effort.

FY 24 Rate Change was approved by Board of Finance 5/30 and City Council 6/5. It will be filed in mid-June, and effective as surcharge on bills rendered in September.

The TEUC forum on McNeil District Heat was held on 6/13. Commissioner Herendeen and Scott Moody were present. The materials are on the Burlington Electric Department website under the McNeil sub bullet. Darren has put his PowerPoint as well as the carbon and forestry analysis from Innovative Natural Resource Solutions and the draft GREET score, which is the carbon intensity model that is being utilized as part of the affordable heat act that passed by the legislature and was developed by Argonne National Labs. That analysis was conducted by First Environment and was commissioned by VGS and not by BED. Darren shared that the carbon score for District Energy came out for McNeil at 3.6 Grams of CO₂ equivalent per mega jewel of energy. Natural gas is a seventy-nine. That means we are reducing emissions potentially over 95% in the GREET Score for district heat. That is consistent with the independent third-party analysis done by VEIC that also showed a reduction for District Heat using an older version of the system. The other analysis is from Innovative Natural Resource Solutions and that looked at a question that was part of the TEUC questions for Burlington Electric. Have you been able to characterize, on an annualized basis over a period of time, what the forest change is in the areas harvested compared to the stack emissions. Darren Springer tried to make the point that with biomass accounting, you do not want to double count the emissions from wood by counting them once when the tree is cut and once when the tree is burnt. You can only count them once to be accurate. You count these in the forest and land use change when the tree is harvested. The net flux in that change is where the emissions are captured, not at the stack. This report covers our stack emissions that shows them on a chart from 2007 to 2020. It also shows the land use change in the forest timberlands where we harvest and shows that between 2007 and 2022 we added over 24M ton of CO₂ equivalent. The report makes clear that McNeil's forest management plans, and sustainable approach is contributing to that. If we had lost that equivalent that would be a concern. The net additions are significantly larger on an annualized basis than the stack emissions from McNeil which points to the sustainability of the operations of plant where we can add net forced carbon. The professors that were presenting from Massachusetts had the point that we could be adding even more forest carbon if we were not harvesting. There was a lot of discussion around that. McNeil's point back, and the forestry community that was present, said that those lands might not be economically viable without the value from the tops and the limbs that McNeil provides. Eighty-eight percent of our fuel is coming from woods chips that are the tops

and limbs that are left over from higher value wood. McNeil is providing an economic value for this wood that helps keep the land as working land. There are different points of view in the community. The key thing for us is that we already have a biomass plant built back in the 1980's, which remains a critical resource for us. From a regional reliability and a Vermont reliability standpoint and dispatchability during times of the year when energy prices are high, where renewable energy generation is low, and where natural gas is constrained. There is no question that McNeil will continue to play a key role for the near and medium term in terms of our energy portfolio. The question is do we want to make the improvements to McNeil with District Heat that would allow it to become a more efficient combined heat and power plant as it was originally envisioned and help us to displace approximately sixteen percent of the natural gas use in the commercial sector in Burlington consistent with our NetZero energy roadmap. That is a question we hope to be able to bring to the City Council if we are successful completing the feasibility work with District Energy and getting term agreements with the key partners sometime in the next few months.

Commissioner Scott Moody said that the dialogue was less about McNeil and more about the carbon issue. On the other side, there was a graph that was not illustrated well. The presenter had a good point that we can stop something today but there is a big lag in the time to catch up too itself. He also stated that was their dismissal of Darren's point of the fact that trees are the above ground carbon cycle and discounting all the fossil fuels that are an additive to the amount of carbon in the atmosphere.

Darren Springer said that his understanding from all the scientific organizations that have called attention to this problem is that human activity primarily is what is driving the carbon challenge in the atmosphere. The scope of the challenge in fossil fuels relative the potential scope of the challenge from the above ground carbon are different and we should recognize that. We should focus on what we can do to impact the use of fossil fuels and if we take our eye off the ball, we have lost something. Beyond that, the real question is the ISO grid marginal fuel when we operate McNeil is natural gas and when its not gas it is coal and oil. If the marginal fuel that would replace McNeil was wind, for example, 100 percent of the time it would be a different dialogue. We would ask do you want to run wind or McNeil. That is not the conversation we can have for a while. The region needs a lot more wind or hydro to reduce its reliance on natural gas. When we get to that point where we have done that, and we want to debate what is better, that is a different conversation. Vermont produces ninety percent of the wood that we utilize as a state and Massachusetts has stopped harvesting and has not counted wood as part of its renewable energy standard anymore. They are only producing about two percent of the wood being used in the state. That means that their wood demand for things like furniture and anything else is from out of state or out of country. They are taking a vastly different approach with wood than Vermont who uses its local renewable resource.

It was good to have a community discussion on this subject.

6. FY23 April Financials

Ms. Stebbins-Wheelock presented the April FY2023 financial results.

The Department's net income for the month of April was \$868K compared to a budgeted net loss of 1.376M, which is \$2.244M better than budget. This is due to the timing of REC revenues which we got in April instead of May.

Sales to customers were \$63K lower than budget for April and \$642K or .98% lower than budget for the fiscal year to-date. Commercial sales are \$580K less than budget for the year to date and non-residential sales are \$127,800 for the year to date. Other revenues, primarily EEU, were \$167K better than budget for the month and \$1.5M for the fiscal year-to-date.

Net power supply expenses were favorable to budget by \$146K in April, due to low prices for sale of excess power. Fuel had a 163K positive variance because McNeil did not run the month of April. Transmission fees were slightly favorable, and those variances were offset by the 128K Mystic, MA power plant charge and some savings on the purchase power side with some lower wind production. Non-power supply operating expenses were \$739K higher than budget for April and \$188K higher for the fiscal year to date, some due to labor and overhead charges due to vacancies. There was also a large variance in outside services due to some GT work being moved to capital expense causing a positive variance.

Other income was \$133K higher than budget due to customer contributions that came in in April.

For FY23 to date, the Department has an actual net income of \$231K compared to a budgeted net income of \$1.9M which is \$1.7M less than budgeted. In terms of net income, a 4M loss of revenue from sales of excess winter energy was amortized and a request will be included in the rate case being filed. That will help with the income side and the adjusted debt service coverage ratio.

As of April 30, the Department's capital spending was \$6.5M versus the \$7.9M budgeted, or 72% of the total FY23 capital budget. Emily expects that most of the capital budget will be spent in this fiscal year.

Operating cash as of April 30 was \$5.73M compared to a budget of \$9.8M, off by \$4.2M dollars budgeted to be at this time or 85 days cash on hand. We have been \$4M short of cash since December.

For the 12 months ended April 2023, the Department's adjusted debt service coverage ratio is .92, and the regular debt service coverage is 2.96.

Burlington Electric Department has reached out to the Moody's analyst to give them an update on how our year has gone including what the winter prices were and the impact that has had on us, our cash position, our plan to seek regulatory approval to amortize that expense through the rate filing as well as letting them know that we expect to end the year with less than 90 days cash, which is not typical for us. As of the last forecast that was done, we are expected to end the year at 65 days cash on hand for the year. The Department management will continue to monitor the cash position closely over the remainder of the fiscal year.

Darren Springer said that the trajectory should improve in FY24 budget since the Department did not assume some of the assumptions made in the FY23 budget, which were more conservative with the benefit of the additional rate change.

7. Net Zero Update

Mr. Springer stated the Burlington Electric Department has been the top city per capita in solar in the Northeast and now in the East. This comes from the Environment America Shining Cities report in terms of solar per capita. In addition, we continue to be above the required amount for tier three electrification incentives through the State. We had a big jump in 2020 when we had the two electric buses and the HULA geothermal and even without those, we have been able to exceed it both in 2021 and 2022. We are hopeful there will be some additional electric buses coming soon. We also have our electric bucket truck arriving soon and some other geothermal opportunities including at the high school. There is some opportunity to continue to drive this number up as we also grow our EV and heat pump adoption and other incentives. When Burlington Electric launched the green stimulus program during the pandemic in June of 2020, we compared the residential tier three heat pump incentives and installations, and we are now over twenty-two times higher compared to where we were then. There has been a sizable growth in the residential heat pump sector, which is favorable for our goal. We are still not at the trajectory that we need, but we are getting better.

The NetZero roadmap focuses on the electric thermal ground transportation sectors being 100 percent renewable by 2030. It is not just a Burlington Electric Department initiative but the whole City Department playing a role. Department of Public Works, with its work on its fleet for the city, walking and biking, planning, permitting and inspections with a variety of our building ordinances all contribute. VCA is a great partner and is doing work to try to make the building just down the street a notable example of a NetZero approach for building the library with education. There are so many partnerships throughout the city and a variety of departments that are moving towards electric vehicles in their fleet.

The data itself comes from Synapse Energy Economics and they draw from Burlington Electric, Vermont Gas Systems, the Department of Motor Vehicles in Vermont and the Vermont and Chittenden County travel data, some of which is provided through Chittenden County Regional Planning Commission.

The good news is, in the ground transportation sector, for a third year in a row, we continue to be ahead of the pace of the NetZero 2030 roadmap. We had a big drop off in emissions in 2020 due to the pandemic, but we have been able to hold that decline steady. The reasons are we are continuing to see reduced vehicle miles traveled, we are seeing more EV adoptions and less vehicles registered overall in the City of Burlington. Car Share and having free transit plays a role in this. We are seeing that the less vehicles, more electric vehicles, and less miles traveled equals the result we are seeing. There is a one-year lag in the data.

On a less positive note, we are seeing some rebound in building sector natural gas use. This is not weather normalized so some of this can be weather variants. Residential and commercial sectors are still down from the 2018 baseline that we began with for the roadmap. Residential came down and has flatlined. Commercial came down in more of a pronounced rebound. In addition to the potential weather variants, it is possible we have units coming online that were permitted before we had the renewable heating ordinance. It is also possible that buildings are using their ventilation systems differently post pandemic. Overall, combining the thermal and ground transportation sector in 2019 to 2022, we had a big drop off in emissions and we have held on to it. We are up 3.2 percent between 2020 and 2022. The US is more than double that in terms of rebound. We are doing a better job overall than the nation in terms of holding on to some of those gains that we saw in the pandemic in terms of a reductions in emissions. We are 11.2 percent lower today than we were in 2018 based on this data. We are not yet bending back towards the NetZero curve, but we are holding on to some significant gains in terms of lowering our emissions.

We are not yet on pace with electrification to the levels that we need to be in terms of EV's and heat pumps. The reduced vehicles and reduced VMT is masking the EV number for the moment. The focus now is we will need the EV number to grow to maintain and build on that progress. In the building sector, the rental weatherization policy that was passed but has just begun to be implemented, and the renewable heating ordinance for new construction will have some impact in the coming years. This potentially will be an even bigger impact from the carbon pricing and policy that could come into effect in 2024. This would ensure that new construction is being built that is renewable, clean, or paying a carbon fee and that large existing buildings and city buildings as they replace heating systems and water heating systems are coming into compliance with the goals. That could have a transformative impact in the building sector.

The other piece that would have a transformative impact for commercial sector natural gas use is District Heat. This would be a 16% reduction right away. The incentives from the federal legislation should give us a benefit, combined with the Vermont rebates and the Burlington Electric incentives in terms of helping us get more adoption for EV's and heat pumps.

There is reason for optimism but there is work to do. We have two important things to do in 2023. If we get District Energy approved and if we can implement the carbon fee policy. If we can do these, we have made significant impact on future updates on the NetZero roadmap.

This presentation is on the Burlington Electric website for more information.

8. IRP Forecast Update #5

Mr. Gibbons stated that because of the time, he will give a full presentation on the IRP forecast at the next Commission meeting,

9. Commissioners' Check-In

There were no items discussed in the Commissioner's Check in.

Commissioner Chagnon made a motion to adjourn; the motion was seconded by Commissioner Herendeen and approved by all Commissioners present.

The meeting of the Burlington Electric Commission adjourned at 7:30 p.m.

Attest:

A handwritten signature in cursive script that reads "Colleen Rouille".

Colleen Rouille, Temporary Board Clerk