

**BURLINGTON**  
**BOARD OF ELECTRIC COMMISSIONERS**  
585 Pine Street  
Burlington, Vermont 05401

SCOTT MOODY, CHAIR  
BETHANY WHITAKER, VICE CHAIR  
LARA BONN  
JIM CHAGNON  
ROBERT HERENDEEN

*To be held at Burlington Electric Department (and)  
Via Microsoft Teams*

[+1 802-489-6254](tel:+18024896254)

Conference ID: 295 615 914#

**AGENDA**  
**Regular Meeting of the Board of Electric Commissioners**  
**Wednesday, June 14, 2023- 5:30 p.m.**

- |  |                |
|--|----------------|
| 1. Agenda                                    | 5:30 (5 min.)  |
| 2. Minutes of the May 10, 2023 Meeting       | 5:35 (5 min)   |
| Minutes of the May 16, 2023 Special Meeting  |                |
| 3. Public Forum                              | 5:40 (5 min.)  |
| 4. Commissioners' Corner (Discussion)        | 5:45 (5 min.)  |
| 5. GM Update (Oral Update)                   | 5:50 (10min.)  |
| 6. Financials: FY23 April                    | 6:00 (10 min.) |
| 7. Net Zero Update (Discussion): D. Springer | 6:10 (10 min.) |
| 8. IRP Update (Discussion): J. Gibbons       | 6:20 (10 min.) |
| 9. Commissioners' Check-In                   | 6:30 (5 min.)  |

Attest:

  
\_\_\_\_\_  
Temporary Board Clerk

If anyone from the public wishes to speak during the public forum portion of the Commission Meeting and/or wishes to be present for the Meeting of the Board of Electric Commission via Microsoft Teams, please email [llemieux@burlingtonelectric.com](mailto:llemieux@burlingtonelectric.com) to receive a link to the meeting, or call (802) 489-6254, Conference ID: 295 615 914#

**Note:** Members of the public may speak during the Public Forum, or when recognized by the Chair during consideration of a specific agenda item.

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- Minutes of the May 10, 2023 Meeting
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- May Monthly Report
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- FY23 April Financials

**Note:** Members of the public may speak during the Public Forum, or when recognized by the Chair during consideration of a specific agenda item.

**\*\*\*DRAFT\*\*\***  
**MINUTES OF REGULAR MEETING**  
**BURLINGTON ELECTRIC COMMISSION**

**Wednesday, May 10, 2023**

The regular meeting of the Burlington Electric Commission was convened at 5:30 pm on Wednesday, May 10, 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, and Scott Moody were present, Commissioner Bethany Whitaker was absent.

Staff members present at 585 Pine Street included Paul Alexander, Rodney Dollar, James Gibbons, Mike Kanarick, Munir Kasti, Laurie Lemieux (Board Clerk), Paul Pikna, Darren Springer, and Emily Stebbins-Wheelock.

Staff members present via Microsoft Teams included Erica Ferland and Amber Widmayer.

**1. Agenda**

Item #7 Fiscal Year 2024 General Obligation Bond was added to the agenda.

**2. April 12, 2023 Meeting Minutes**

Commissioner Chagnon made a motion to approve the minutes of the April 12, 2023 Commission Meeting; the motion was seconded by Commissioner Herendeen and approved by all Commissioners present.

**3. Public Forum**

Ms. Jody Woos was present for the meeting at 585 Pine Street.

Ms. Woos stated that she is a neighbor of Commission Chair Moody and that he asked her to come and share her experiences regarding the electrification of her property. In November 2019, Ms. Woos bought a duplex in the old North End. The property was in good shape but was very much natural gas focused. Since that time, Ms. Woos and her partner have undertaken many upgrades to be able to use more electricity. They installed a Level 2 car charger, an electric stove, heat pumps in both apartments, as well as worked with Energy Coop of Vermont to weatherize the house. They built window inserts for all windows, insulated the basement ceiling, and currently are working with SunCommon on a solar canopy. Ms. Woos stated that they are committed to transition to

electric for all their energy needs and have benefited enormously from BED incentives, VGS for weatherization incentives, and various state and national incentives over the past three years.

At this time, their 100-amp service is at the edge of its capacity, and they would not be able to add any additional load. The cost of upgrading the service rests entirely on the homeowner. For most homes in their neighborhood, it's not possible to generate sufficient electricity from a roof-mounted solar system, as it would generate only 1/3 of their annual electric consumption, and there are no community solar options for BED customers. Ms. Woos' project to go entirely solar depends on the square footage of their lot, finances, and the ability to navigate project complexities. Also, Ms. Woos expressed concerns about the electric grid in the state and in New England, on which BED depends. Projects to increase electricity generation in Vermont using solar and wind power have been stalled or canceled for a number of reasons, including the lack of capacity to the grid to take the additional power. For many projects, the developer or the homeowner must pay the entire cost of upgrading the grid access and, in many cases, this makes the projects economically unfeasible.

Ms. Woos stated that, we know from national experience that when demand exceeds supply for electricity, the least efficient power plants must be spun up to accommodate that demand. These plants are the worst of the worst in terms of efficiency and greenhouse gas emissions. Organizations like BED are addressing this responsibly through promoting increased use of electricity. We are grateful for everything BED has done to incentivize electricity use of electricity in our City.

Ms. Woos stated that the electrician with whom they are working stated that they are right at the edge of maxing out their service and, if they turned everything on at the same time, it wouldn't be good. Commissioner Herendeen stated that the average use is approximately 1½ KWH, which is 10-15 amps total, so it sounds like the "all on at once" issue is the problem. Commissioner Herendeen stated that part of our management is time demand. There are incentives for charging EV's that encourage off-peak charging, which helps eliminate the "all on at once" problem.

Commissioner Moody stated that the struggle seems to be that the engineers design for the "all on at once" scenario and that anything less could potentially be a safety issue. This fact is forcing residents to upgrade their service at their own expense, as there are no incentives in place for upgrades.

Mr. Springer thanked Ms. Woos for sharing her comments and concerns. He stated that the electric panel upgrade is not a BED issue, but rather a Department of Permitting and Inspection issue. If you have a 100-amp service, it is recommended not to use more than 80-amps, preventing an overload by having everything on all at once and having a real issue. So the move from 100-amp to 200-amp is what is required unless you go with smart panel technology that can ensure that you are not using everything all at once. Mr. Springer stated that, while BED does not have specific incentives for panel upgrade, we do offer incentives to reduce fossil fuel use. The state has an income-qualified program, using federal funds that will be available this year to help with this issue of upgrading

panels and service. Also, the Federal Inflation Reduction Act offers both tax credits and rebates. So, for the first time, there will be some resources available to help when customers need to upgrade.

Mr. Springer thanked Ms. Woos for the good discussion and for doing all the right things.

#### **4. Commissioners' Corner**

There were no Commissioner updates at this time.

#### **5. GM Update**

Mr. Springer stated that one of our major IT Forward projects is now live, our Meter Data Management System (MDM) and shared much appreciation for the Billing, IT, Customer Care, and Finance teams for their efforts.

Mr. Springer stated that S.137, the efficiency modernization bill, has passed the House and Senate and is headed to the Governor. This bill gives BED the ability to pull from our thermal energy process fuel (TEPF) funds to further enhance our incentives, which is unique to BED. We are required to design programs that would specifically target customers who have a significant energy burden. The Renewable Energy Standard (RES) issue is not yet resolved. Both a study and work group are lingering in the House and Senate, and we are not sure if either or both will move forward.

The Vermont Climate Council rejected recommendations that would have had potential adverse impacts for McNeil and for district energy. Work proceeds on district energy, and we expect to have updated McNeil carbon analysis by end of May. On June 13, a forum by the Transportation Energy Utilities Committee (TEUC) and the City Council will be held in Contois Auditorium, including a facilitated Q&A and public comment to gather more information about McNeil, carbon accounting, and district heat ahead of our potentially being able to bring a vote to the City Council sometime this summer. We will send the Commission more information and would welcome one or more Commissioners to either join or call in for public comment.

Mr. Springer stated that we have a new BED sign on the south end (front entrance) and a new Net Zero Energy sign on the east side of the building, facing Pine Street. We had a great visit with second graders from Champlain Elementary School who were here to learn about different careers. They learned about forestry, energy efficiency, lineworkers, and our GIS CAD Technical, Raquel, spoke to them about making diagrams of the City grid. It was a great visit.

Mr. Springer stated that we will share a verbal update on NZE 2022 data from Synapse at the next Commission Meeting. This update will not be much different than what was shared previously. We have more confirmation, which is in 2022 emissions overall in the sectors that we track.

Commissioner Bonn asked whether BED considers storage capacity and vehicle to grid when

looking at new buses. Mr. Springer stated that we have not gotten to vehicle to grid, but we are always thinking about time of use with chargers. Mr. Gibbons and his team have worked with the current two buses and the charging to make sure that we can charge off-peak at the lower rates.

## **6. FY23 March Financials**

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

The Department's net loss for the month of March was \$1.3M compared to a budgeted net loss of \$336K, which is \$928K worse than budget.

Sales to customers were \$26K lower than budget for March and \$705K or 1.8% lower than budget for the fiscal year to-date. Commercial sales are \$547K less than budget for the year to date and residential sales are \$159K less than budget. Other revenues, primarily EEU, were \$205K better than budget for the month and \$1.4M for the fiscal year-to-date.

Net power supply expenses were unfavorable to budget by \$937K in March, due largely low prices for sale of excess power. The Department continues to experience unbudgeted capacity charges related to the Mystic, MA power plant, which were \$284K in March. Non-power supply operating expenses were \$356K higher than budget for March and \$550K higher for the fiscal year to date, largely due to timing variances.

Other income was \$191K higher than budget due to unrealized gain on investments in the construction fund.

For FY23 to date, the Department has an actual net loss of \$637K compared to a budgeted net income of \$3.3M.

As of March 31, the Department's capital spending was \$5.5M versus the \$7.0M budgeted, or 61% of the total FY23 capital budget.

Operating cash as of March 31 was \$7.0M compared to a budget of \$10.9M, or 93 days cash on hand. Department management will continue to monitor the cash position closely over the remainder of the fiscal year.

For the 12 months ended March 2023, the Department's debt service coverage ratio is 2.36 and the adjusted debt service coverage ratio is 0.67.

## **7. Fiscal Year 2024 Updated Draft Budget**

Mr. Springer stated that the final FY24 budget presented to the Commission this evening is the result of a tremendous amount of work between the April Commission Meeting and this meeting. The Department has had a number of challenges to overcome this year, and we are concerned

about the days cash on hand metric for FY23. The FY24 budget is also challenged as a result and we have limited tools to affect that. Since we started seeing variance in the actual FY23 winter energy prices starting in December/January, we have been taking steps to end the year with as close to 90 days as possible.

Mr. Springer thanked the entire Executive Team and Mr. Kasti in particular for his work in identifying reductions to capital and operating expenses.

Ms. Stebbins-Wheelock reiterated that the Department is heading into the FY24 budget with a weak starting cash position driven by low winter energy prices that reduced the value of our excess winter energy sales. The Department signed a new contract with the IBEW for the next four years in a high inflation environment, resulting in a cumulative 18 percent COLA over the four-year contract term. Revenue from sales to customers is relatively flat; while we are seeing some uptick in residential consumption, the City has lost commercial square footage over the past 7 to 8 years. There is continued uncertainty regarding winter 23-24 prices for the sale of excess energy. The Net Zero Energy Revenue Bond is a critical source of capital funding this year. The Commission will see a robust capital budget for FY24 due to the 2022 revenue bond financing available. The Department is requesting a 5.5 percent rate increase in FY24, beginning on bills rendered September 1, 2023. We are not completely done with the analysis, but currently we estimate we can demonstrate a need for a rate increase of approximately 14 percent. Ms. Stebbins-Wheelock stated that the goal for the FY24 budget is not improving our Moody's metrics, but rather keeping them stable while minimizing the rate increase that we are asking from the community.

Ms. Stebbins-Wheelock reviewed a graph of total annual MWh sales dating back to 2000 and explained the dips in particular years. In 2005, there was a significant increase due to a hospital expansion. Somewhere around 2010, you could no longer buy incandescent light bulbs due to federal lighting efficiency standards, which we believe had an impact. Blodgett Oven relocated in 2017, resulting in a drop, and the Town Center came down and nothing has yet replaced it. In 2020, the COVID-19 pandemic began. When you combine the efficiency gains with the loss of commercial square footage, which makes up most of our sales, you see that while sales have rebounded to approximately 2019 levels out of the pandemic, 2019 sales were the lowest in the past 20 years.

With the chief source of its operating revenue being essentially flat, the Department has had to turn to the expense side to make a budget balance. Ms. Stebbins-Wheelock then presented a graph of controllable expenses over time, showing what controllable costs would be if they had continued on the previous pace of 5.84% between 2007 and 2016. From 2016 to date, controllable costs have grown only 1.7 percent on average. As a team, the Department cut about \$6.4M of expense during FY24 budget development, and our controllable, non-power supply, operating and maintenance expenses are 2.3 percent lower than the FY23 budget. The Department has made some painful sacrifices to keep the rate request as low as possible.

Ms. Stebbins-Wheelock reviewed the FY24 Budget Overview and Key Assumptions, which included operating revenues 2.5 percent higher than the FY23 budget for reasons that include a rate increase

of 5.5 percent, flat KWH sales to customers, and REC sales revenue decreased 0.7 percent.

The operating expense budget for FY24 is 4 percent higher than the FY23 budget for reasons including:

- Sales of excess winter energy reduced by \$1.5M or 25 percent due to lower forward prices.
- New \$759K expense for ISO-NW Mystic cost of service charge.
- Assuming \$529K amortization of new regulatory asset related to winter 2022-23 energy prices.
- New power supply expense increase of only 2 percent.
- New \$118K cash outlay for Moran Frame MOU repayment.
- City indirect allocation increased to \$83K.
- Interest Income is \$402K higher than FY23 due to better rates.
- Net Income is \$142K, which is \$1.1M less than the FY23 budget.

Ms. Stebbins-Wheelock then reviewed the capital budget, the Department's biggest in a number of years at \$10.9 million overall. The capital budget is funded from both the \$3M general obligation bond and \$9.2M from the 2022 NZE Revenue Bond. Distribution plant investments make up most of the budget at \$7.2M, with about \$2M budgeted for our generation facilities, \$1.3M to general plant (including items like IT, fleet, and buildings), and \$414K to other plant, which includes safety equipment and EV chargers.

Ms. Stebbins-Wheelock stated that the Department's FY24 year-end credit rating factors are projected at a 3.64 debt service coverage ratio, which is well above the 1.25 we need; an adjusted debt service coverage ratio of 1.09; and 90 days cash on hand.

Ms. Stebbins-Wheelock's final slide was a preview of potential financial actions on the horizon, including the accounting order to amortize the shortfall in revenues from excess 22-23 winter energy; a March 2024 ballot item to amend the City Charter to increase the Department's line of credit, which was set at \$5 million around 1999, when our operating expenses were approximately half of what they are today; and a November 2024 ballot item to approve a second revenue bond as part of the FY25 budget to provide continued capital financing. A final consideration for the Commission and Council awareness is the possibility of seeking a Charter change to include a fuel adjustor clause similar to the authority that VGS and GMP have under alternative regulation. A fuel adjustor clause for BED as a municipal utility would require voter approval, but it would give the Department an additional tool to recover revenue shortfalls or expense overages related to energy market volatility and better manage our cash position and our expenses relative to our income.

Mr. Springer stated that the Department will continue to make investments in key items related to the City's Net Zero Energy goal, which total a little over \$3M between Tier 3 and the efficiency programs.

The Commission had a few questions that Mr. Springer and Ms. Stebbins-Wheelock answered to

their satisfaction.

Commissioner Chagnon made a motion to approve the Department's Fiscal Year 2024 Capital and Operating Budgets as presented; the motion was seconded by Commissioner Bonn and approved by all Commissioners present.

## **8. Proposed 2023 Rate Case**

Mr. Springer stated that the proposed rate increase is still 5.5%, unchanged since the initial presentation to the Commission at its April meeting. Mr. Springer offered to answer any questions or provide additional information.

The Commission was comfortable moving to a vote.

Commissioner Herendeen made a motion to recommend to the Board of Finance and the City Council the authorization to pursue a rate increase in the amount of 5.5% for bills rendered beginning September 1, 2023; the motion was seconded by Commissioner Chagnon and approved by all Commissioners present.

## **9. Fiscal Year 2024 Obligation Bond**

In March 2012, Burlington voters approved a City Charter change to allow \$3,000,000 of General Obligation Bonds to be issued by the City annually for capital improvements on behalf of the Burlington Electric Department. As part of our budget review and approval each year, we include a line item for this \$3,000,000 General Obligation Bond. Bond Counsel of the City requires a formal approval by the Electric Commission before forwarding to the City.

As in FY23, the City again is planning to seek City Council approval to issue a Bond Anticipation Note (BAN) for FY24. The FY24 BAN will be converted to a General Obligation bond in FY25.

Commissioner Bonn made a motion to recommend to the Board of Finance and the City Council to authorize and direct the Chief Administrative Officer to pledge the credit of the City by issuing a bond anticipation note (BAN) or bonds in an amount of \$3,000,000; the motion was seconded by Commissioner Chagnon and approved by all Commissioners present.

## **10. IRP Forecast Update #4**

Mr. Gibbons stated that work continues on the IRP. Casey Lamont is generating mini models which are evaluations of the customer, utility, and societal economics of various measures that are going into the IRP. These models will be given to Tom Lyle, which he needs for the energy services chapter. We will be working on the actual resource chapter of the IRP; the economic and carbon study on McNeil are almost finished; we expect to have those ready for the June meeting; and will be providing to the Department of Public Service (DPS) concurrently for its review.

## 11. Commissioners' Check-In

Commissioner Herendeen stated that we are making long-term efforts in demand management, and the idea of spikes that would blow the system causes him concern. When he hears what was presented tonight by Ms. Woos, he thinks about packed capacity and how that would never happen, which means you have overbuilt. Commissioner Herendeen stated that he keeps coming back to the importance of time-of-day rates like the ones we have now for EV charging and the ones Mr. Gibbons mentioned for managing winter thermal. Commissioner Herendeen hopes we do not lose track of demand management. His response regarding spikes and overbuilding would have been to say, "we are going to manage the demand."

Mr. Springer stated that the National Electrical Code will not let you build what you need for capacity; rather you have to overbuild. They require you to overbuild your panel relative to the max-out amperage. We realize that this will be an issue, and we know people will need upgraded services. We are investigating various smart technologies that can manage usage. Separately, we now are able to view and help manage usage. With our heat pump pilot, for example, we hope to accomplish peak reduction impacts where we can moderate the temperature a little bit during the winter time.

Commissioner Herendeen understood that Ms. Woos' concern was that she envisioned a peak time when her panel would be overloaded, necessitating a bigger panel. Mr. Springer stated that this is not so much a BED peak usage issue, but rather it is a permitting and electrical code design issue based on the permitting code requirements.

Commissioner Herendeen stated that it seems that the question is "do they want more than 100 amps?" And the answer may be yes, but one answer might be you do not need it if you manage demand well.

Mr. Springer stated that this is not about how someone manages demand. A recent change in the National Electric Safety Code now requires 20 percent open amperage. In other words, it is not based on maxing out your service, but rather on the possibility that you could max out your service. Commissioner Moody stated that this is the frustration that Ms. Woos is having. They will never max out the service but the National Electric Safety Code requires that they upgrade their service.

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 7:00 p.m.

Attest:

  
Laurie Lemieux, Board Clerk

**MINUTES OF SPECIAL MEETING  
BURLINGTON ELECTRIC COMMISSION**

**Tuesday, May 16, 2023 – 12:00 pm**

The special meeting of the Burlington Electric Commission was convened at XXXX pm on Tuesday, May 16, 2023 at Burlington Electric Department at 585 Pine Street and virtually through Microsoft Teams.

Commissioner Moody was present at 585 Pine Street. Commissioners Bonn, Chagnon, Herendeen, and Whitaker participated via Microsoft Teams.

Staff members present at 585 Pine Street included Darren Springer, Mike Kanarick, Munir Kasti, Laurie Lemieux (Board Clerk), and Emily Stebbins-Wheelock.

Staff members present via Microsoft Teams included Paul Alexander, Rodney Dollar, James Gibbons, and Paul Pikna.

**1. Agenda**

There were no changes to the Agenda.

**2. Public Forum**

No one from the public was present for the meeting.

**3. FY24 Budget Revision**

Mr. Springer stated that after the Commission voted to approve the Department's FY24 budget at the last Commission meeting the Department received from the City an unanticipated change in the FY24 pension expense that negatively impacted the budget that was passed. Since the Department is not presenting its FY24 budget to the Board of Finance until tomorrow evening, this gave us a chance to meet with the Commission to review the changes and ask for approval of the updated budget.

Mr. Springer stated that prior to the change the FY24 budget had a slim margin for net income and for our financial metrics. With support from Ms. Stebbins-Wheelock, Ms. Mitchell, and Mr. Gibbons, we worked quickly to identify items that more than offset the negative variance from the revised pension expense. Mr. Springer stated that the FY24 budget being presented to the Commission today has a higher net income than what was previously presented at the Commission's May 10 meeting and has an adjusted debt service coverage ratio metric projected at 1.11 instead of 1.09. There were four major changes made to offset the increased pension expense: a small savings identified in the Customer Care budget, salary savings because we were not able to recruit a Controller this spring, savings due to lower than anticipated unit prices for RECs recently

purchased, and the forward reserve market came in higher than anticipated.

At this time we are asking for the Commission's approval of the updated FY24 budget. Mr. Springer pointed out that none of these changes affects the requested rate increase, which the Commission approved separately and is being presented to the Board of Finance on May 17 and then May 30 for consideration, and the Council on June 5.

Ms. Stebbins-Wheelock reviewed the changes to net income:

- Increased expense of \$222,837 from increase in Labor Overhead rate due to increased pension contribution per actuarial report.
- Reduced expense \$31,034 by delaying Controller start date to 9/1/23.
- Reduced expense \$9,600 for duplicated bill printing charges.
- Reduced expense by \$155,127 for decreased Tier 1 RES compliance expense (unit inventory cost reduced by recent REC purchases).
- Reduced expense by \$167,548 for Forward Reserve Market (summer auction closed higher than expected).

Ms. Stebbins-Wheelock reviewed the changes to capital/cash:

- Decreased cash by \$230,230 from increase in Labor Overhead rate due to increased pension contribution per actuarial report.
- Increased cash \$31,034 by delaying Controller start date to 9/1/23.
- Increased cash by \$9,600 for duplicated bill printing charges..
- Increased cash \$167,548 for Forward Reserve Market (summer auction closed higher than expected).

Commissioner Chagnon made a motion to approve the revised Fiscal Year 2024 Capital and Operating Budgets as presented; the motion was seconded by Commissioner Herendeen.

The Board Clerk, Laurie Lemieux, conducted a roll call vote by calling on the following Commissioners:

Commissioner Bonn. Aye  
Commissioner Chagnon. Aye  
Commissioner Herendeen. Aye  
Commissioner Moody. Aye  
Commissioner Whitaker. Aye

Results: 5 Ayes with 0 Nays, the motion carries.

Commissioner Herendeen made a motion to adjourn; the motion was seconded by Commissioner Bonn.

The Board Clerk, Laurie Lemieux, conducted a roll call vote by calling on the following


Commissioners:

Commissioner Bonn. Aye  
Commissioner Chagnon. Aye  
Commissioner Herendeen. Aye  
Commissioner Moody. Aye  
Commissioner Whitaker. Aye

Results: 5 Ayes with 0 Nays, the motion carries.

The meeting of the Burlington Electric Commission adjourned at 12:11 p.m.

Attest:

  
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Laurie Lemieux, Board Clerk



To: Burlington Board of Electric Commissioners  
From: Darren Springer, General Manager  
Date: June 9, 2023  
Subject: **May 2023 Highlights of Department Activities**

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### **General Manager**

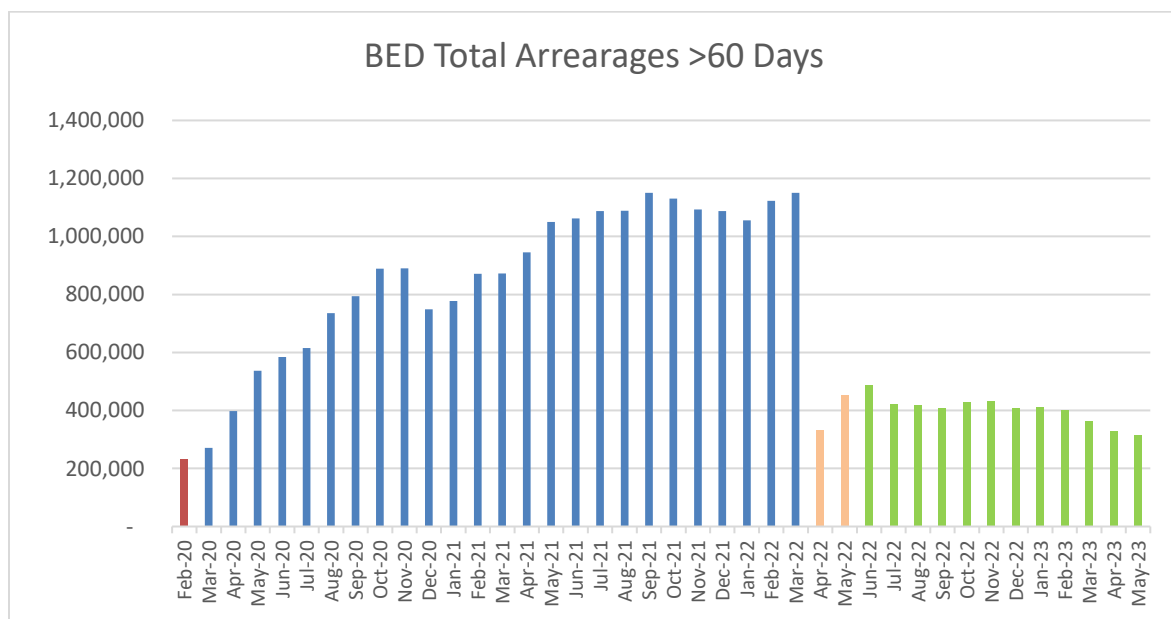
- 23-24 Strategic Direction – BED is working on tweaks for consideration by the Commission in July for the 23-24 Strategic Direction and welcomes discussion with Commissioners who have ideas for updates that are needed (primarily for the Objectives).
- S. 137 – The Governor has signed S. 137, which provides 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 greatly 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.
- S. 112 – 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 in an effort to provide information relative to the carbon fee ordinance. We hope something can be introduced soon, and that Committees can review in July.
- TEUC Forum 6/13 – The TEUC forum on McNeil/District Heat is 6/13, and BED and a number of panelists are participating. We can provide a summary of how it went at the 6/14 Commission meeting.
- EV Charging – BED has a number of 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.

### **Center for Innovation - Emily Stebbins-Wheelock**

- Acting supervisor of Finance & Accounting and Billing staff; spring 2023 Controller search unsuccessful.
- Coordinating efforts to track and respond to federal and state funding opportunities, including battery storage, public EV charging infrastructure, and flexible load management software.
- Overseeing 2022 and 2023 rate case development/implementation.
- Mentoring 2023 DeltaClima cohort.
- Continued sponsorship of IT Forward implementations. Portal go-live target date is July 6.

### **Finance & Accounting**

- Presented FY 2024 budget to Electric Commission and the Board of Finance: City Council approval pending in June.
- Monitoring FY23 net income and cash position.
- Continued work on cost of service for 2023 rate case.
- Assessing new GASB Standard 96-Subscription Information Technology Arrangements for implementation in FY23.
- FY23 audit planning call with KPMG.
- Staff field visit to BED substations escorted by BED Technician team.
- Pursuing FEMA reimbursement grant for damage from Winter Storm Eliot.
- Monitoring receivables in response to COVID19: as of May 31, 2023, BED's total non-current receivables had decreased \$16,692 or 2.7% compared to the end of April 2023. Arrearages >60 days were \$316,898.



## Information Services

- Ongoing phishing and security testing of our users.
- Stabilization of the new MDMS continues post go-live. Small changes have been made to update outage map and outage notifications.
- Continued progress on the new Portal. Vendor continues to work through enhancements and BED training ahead of formal UAT process. Anticipated go-live early July.
- Pole-mounted router project to replace AMI cell relays underway. Fifteen units have been deployed by the metering team; fourteen additional are waiting to be deployed. Deployment paused in late May to avoid busy season. Prioritization of replacements continues based on location of devices.
- Implementation of Itron Mobile Radio for metering Field Collection System underway.
- New switches were installed to complete the fiber ring for the AMI network. Our AMI network is now significantly more fault tolerant and resilient to single points of failure.

## Policy & Planning

- June 2023 rate case filing preparation.
- Final REC purchases of vintage 2022.
- Supported statewide (DPS, VELCO, DUs) federal funding application for battery storage.
- Filed responses to PUC questions re: District Energy System TEPF expenditures to date.
- Filed letter with PUC-requested information on EV rate.
- Filed request for PUC to waive requirement for in-person disconnection notice.
- DeltaClimateVT 2023 cohort mentoring.
- Public EV charger work group meetings and federal grant-writing.
- Continuing work on 2023 IRP: energy services chapter drafted, distribution and generation chapters in progress.
- Legislature wrap up.
- Negotiating McNeil Solar Test Center site license amendment with VGS.
- Net metering tariff approved; notice to customers in progress.
- Selected UNH program interns for June start.
- Selected PhD student intern for IRP assistance during summer 2023.
- Proposed change to public EV charging rate
- Called first CCHP pilot cooling peak events.
- MDMS Rules Engine training with SmartWorks.

## **Sustainability & Workforce Development**

- Worked with Communications & Technology Specialist Adam Rabin, to edit and release new podcast episodes with 1) Adam Sherman, Senior Consultant VEIC, and Betsy Lesnikoski, BED Chief Forester, on biomass and 2) Ita Meno, Project, and Equity Analyst, re: equity and diversity in BED's work.
- Hosted monthly Lunch and Learn with Ita Meno, Project, and Equity Analyst, on BED efforts to connect with BIPOC and traditionally disadvantaged community members.
- Participated in EV Charging work group, including discussion on EVSE selection site criteria.
- Met with DPW staff on prospective addition of EVs to COB fleet.
- Continued participation in Clean Energy to Communities working group hosted by World Resources Institute; reported on BED's work including policy efforts and rebates that impact LMI customers.
- Continued management of VLITE-funded effort to electrify CarShare VT's charger in the Marketplace Garage; electrical work pending.
- Joined bi-monthly 2030 District Steering Committee meeting, set agenda for the October 2030 District Summit in Burlington.
- Coordinated Bike-to-Work Day event with the Fletcher Free Library and Local Motion's e-bike lending library.
- Coordinated call with Climable, a MA-based non-profit specializing in climate literacy for non-English speakers, youth, and the traditionally disadvantaged.
- Joined monthly "equity" meeting with Energy Services and partners from VGS and EVT.
- Participated in Family Room "energy clinic" event and distributed new coupon for Energy Star appliances.
- Continued outreach to stakeholder groups and community members, including weekly community lunch at Mercy Connections, meeting with the Refugee and Immigrant Service Providers Network, and Monday afternoons at King Street Laundry.
- Participated in REV 2023 Steering Committee meeting, including a review of panel proposals and agenda setting.
- Joined BED-hosted meeting with Champlain Valley Office of Economic Opportunity (CVOEO) and initiated efforts with ReSource to coordinate front-loader and heavy equipment training for prospective job candidates interested in entry-level BED positions.
- Participated in two Spring Move Out events with UVM and with CVOEO and other non-profit partners.
- Initiated translation work, including creation of a video on how to understand a utility bill and a draft document on how to read a bill, along with energy savings and efficiency information.

## **Center for Safety and Risk Management – Paul Alexander**

### **Safety**

- Coordinated Operations Electrical Safe Practices 1910.269 Training
- Conducted May Generation Safety Committee meeting.
- Performed 6-month calibration of safety confined space gas detectors.
- Conducted monthly inspection of fire extinguisher inspections for Pine Street
- Conducted monthly inspection Substation inspections for first aid and fire extinguishers.
- Conducted Operational & Generation Field Audits

- COVID-19 mitigation measures ended effective 5/21/23.

### **Environmental**

- Conducted weekly HazMat Storage inspections at Pine Street
- Conducted wastewater sampling.
- Conducted wastewater sampling and reporting.
- Began valve identification phase of the McNeil valve project.
- Attended the biodiesel conversion walkdown and scope meetings.
- Met with Horiba about the CEMs upgrade timeline.
- Tuned CEMs for light off.

### **Risk Management**

- New Claims Investigations (6 total: 2 Property, 2 Liability, 2 Other).
- Attend RIMS Conference
- Reply to 2 VT State Attorney pole claim hearings.
- Created agenda and chaired BED's Safety Committee (BSC)
- Produce/conduct OSHA log and barrel check for Safety.
- Release for Bike tune-up Day (BTU)
- Attend NZE Festival meeting.
- Perform two employee performance evaluations.
- Attend L&L (REIB)
- Review DigSafe history at BED
- Review disco/reco employee protection with legal/HR
- Attend Travels webinar.
- Review Naloxone/Narcan NEOGOV training
- Conduct new employee orientation.
- Attend GT Biodiesel meeting.
- Create releases for Will Raap memorial service and COX/DDC lot access.
- Meet with H&B and GM on Property insurance renewal.
- Revise Auto claim form
- Attend VT CPCU Chapter meeting.
- Help with Employee luncheon setup.
- Test VELOC VPN for IT

### **Purchasing/General Services**

- Team worked on Pole Pile and placing wood chips underneath the area.
- Attended the monthly Pine Street Safety Meeting
- Meet with Livable Wage city team on changes for FY24.
- Attended a team meeting on the NZE Festival

### **Center for Operations & Reliability – Munir Kasti**

- Acting Supervisor of Grid Services staff.
- Acting Supervisor of Generation staff.
- Conducted an interview for the vacant Protection Engineer position.
- Continued to work on the FY24 budget.
- Participated in the SCADA/ADMS RFP Vendor Q&A Meeting.

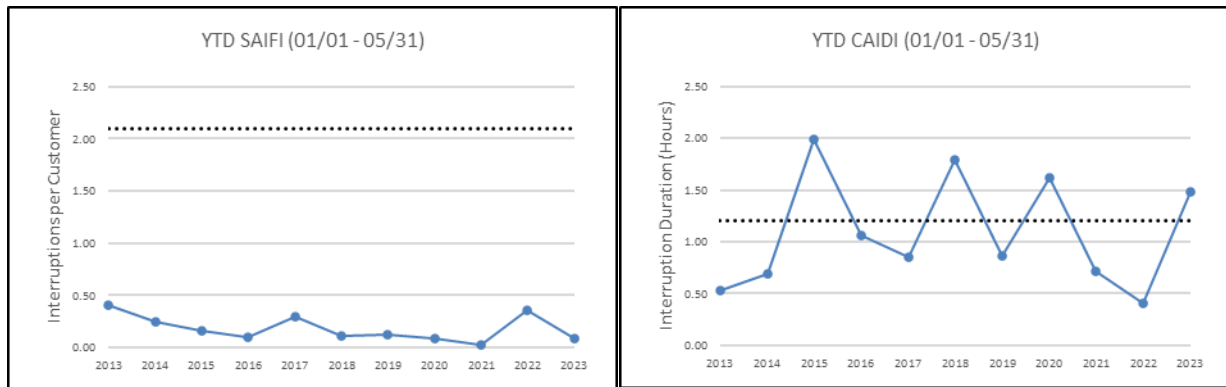
### **Engineering & Operations**

- Replaced the existing Votey Engineering Building Switch (910s – 911s).
- Completed a service upgrade at 40 Edinborough Drive.
- DC Fast Charger at Marketplace Garage and 585 Pine St are installed on the pad. Work to energize to happen in June.
- Continued work on Sunset Cliffs Road for rebuild of distribution circuit.
- Completed shop testing of new capacitor bank to be installed for UVM new Athletic Center. Installation and commissioning of new cap bank to be completed in early June.
- Continue review and discussions with all parties on plans for proposed rebuild of Main Street related to the Great Streets project.
- Completed estimates for new services at:
  - 20 Crowley St
  - 61 North Willard St

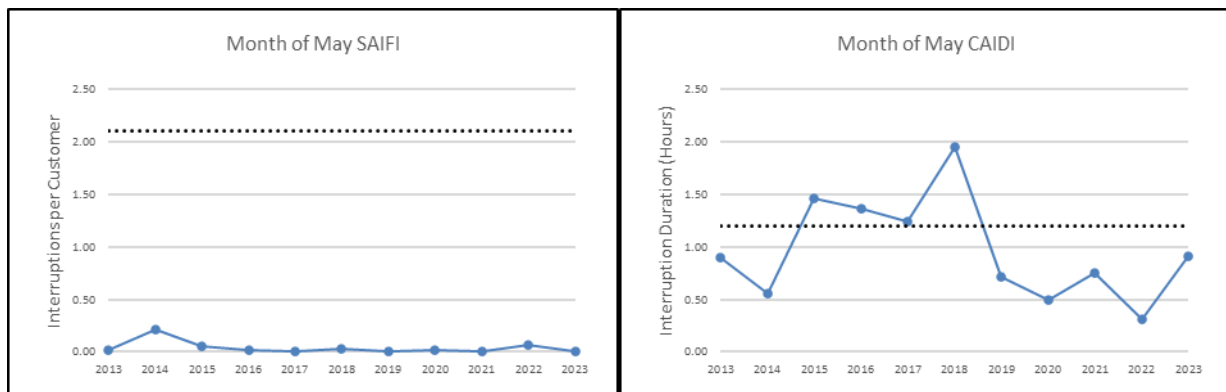
### ***SAIFI & CAIDI Outage Metrics:***

BED's distribution system experienced 14 outages in May 2023 (3 unscheduled and 11 scheduled). BED's SAIFI for the Month of May was 0.01 interruptions per customer and CAIDI was 0.91 hours per interruption. BED's YTD SAIFI is 0.09 interruptions per customer and YTD CAIDI is 1.49 hours per interruption.

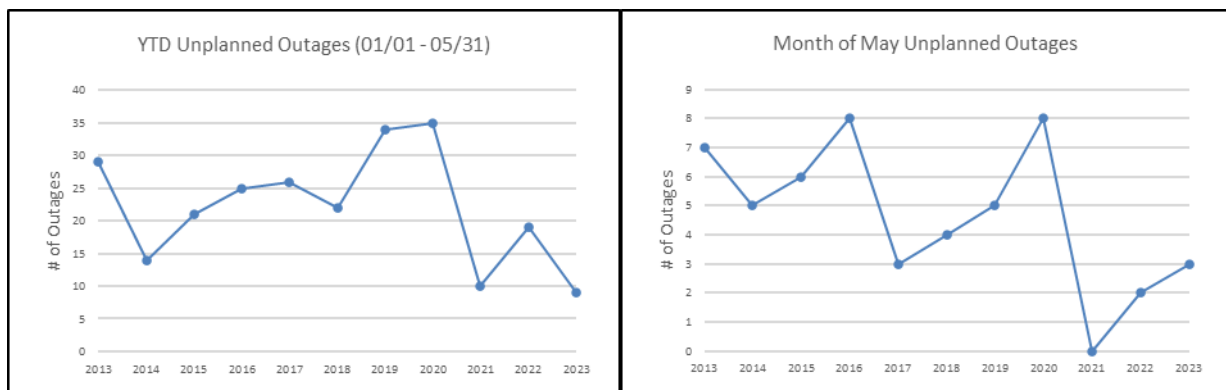
The following figure shows BED's historical YTD SAIFI and CAIDI:



The following figure shows BED's historical May SAIFI and CAIDI:



The following figure shows BED's historical Unplanned Outages:



**GENERATION*****McNeil Generating Station***

Month Generation:	1360 MWh
YTD Generation:	83307 MWh
Month Capacity Factor:	3.7 %
Month Availability:	98.1 %
Hours of Operation:	40.52 hrs.

This month at McNeil we conducted routine maintenance, preventative maintenance, and some process improvement projects. Forestry team built up McNeil wood supply for summer run.

***Winooski One Hydroelectric Station***

Monthly Generation:	2505.03 (71.531 % of average)
YTD Generation:	15197.057 (123.553% of average)
Month Capacity Factor:	45.5 %
Annual Capacity Factor:	56.668 %
Month Availability:	99 %

This month at Winooski One conducted routine maintenance, preventative maintenance, and a few process improvement projects. The rake boom was repaired and reinstalled. We concluded fishing in cooperation with Vermont Fish and Wildlife.

***Burlington Gas Turbine***

Month Generation:	00.000 MWh
YTD Generation:	12.870 MWh
Month Capacity Factor:	0.000%
Month Availability:	38.841%
Hours of Operation Unit A:	0.0
Hours of Operation Unit B:	0.0

The asset was fully out of service since 7/20/22 undergoing troubleshooting and repairs due to the forced outage resulting from the failed PT A coupling shim pack. After commissioning activities initiated, alignment and vibrations were found to be excessive. One unit, B Jet, was eventually commissioned on 3/9/23 with a successful single unit operation however A PT vibrations were too severe and A Jet could not be commissioned and is presently out of service. The best-known plan to remedy the misalignment of A PT that results in high vibrations is an engineered coupling capable of taking up the misalignment, this new coupling is on order. There was additional unavailability during the month due to efforts of taking final measurements of A PT related to this new coupling. The asset is available for operation at 9 MW at the end of the month.

(June Ecomax=19.2), (October Ecomax=23.0)

## Distribution

### Completed Work

**BHS** - The temporary service for the new high school has been energized and the construction trailers are up and running.

**Pine Street** - We have installed the final piece for the pole mounted EV charger in our dirt parking lot and we are just waiting to hear that it is online.

**Pine Street** - Crews replaced and transferred damaged utility pole #576

**North Avenue** - Crews replaced and transferred damaged utility pole # 2695

**Champlain Parkway** - Flynn Ave crews have completed the undergrounding for the Flynn Ave crossing.

**Votey Engineering** - Crews had a coordinated outage with UVM to replace the aging 910s/911s.

**Elmwood Ave** - Crews completed the annual federal building outage which allows their electricians to clean and repair the internal building equipment.

### Ongoing Work

**Champlain Parkway** - Home Ave / Railroad Tracks the crews have set and transferred two poles along the railroad tracks in preparation for SDI to install the new conduits for the Home Ave. crossing. Work will continue once the conduit is installed as well as the end of Lyman Ave.

**Sunset Cliff** - Crews have energized the new primary line and are currently working with Todd Chagnon to transfer the remaining service connections onto the new line.

### Metering

Metering and Distribution Crews completed 23 service appointments as well as upgraded (replaced) 5 AMI relays.

### Scheduled Outages (6)

**Sunset Cliff**, to prep for the transfer of customer services.

**Votey UVM**, to replace the 910s/911s.

**Federal Building**, for their annual outage.

**Pine St**, for a damaged pole replacement.

**Airport**, electrician requested.

**Edinborough Dr.**, for a transformer replacement

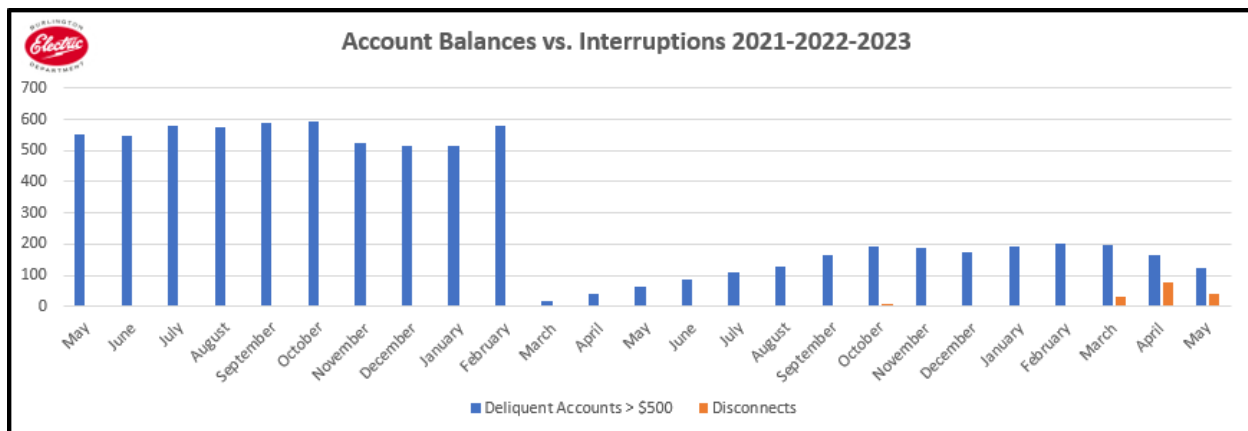
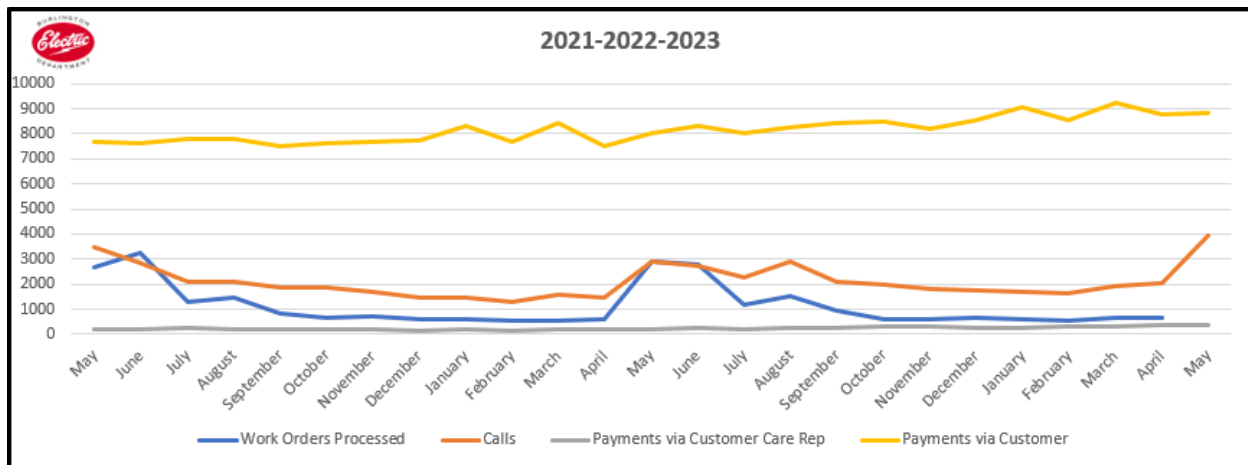
### Miscellaneous

The 2<sup>nd</sup> grade class from Champlain elementary came for a very nice visit, they asked questions from several different representatives in the building Darren included and then were treated to a short question and answer session with Ciaran and Ryan in the truck bay.

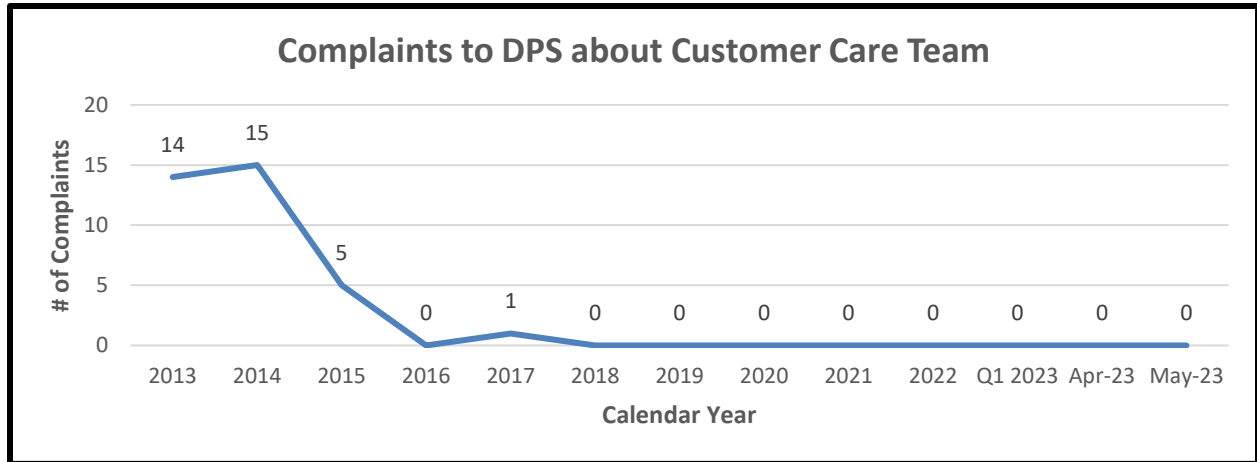
## Center for Customer Care & Energy Services – Mike Kanarick

### Customer Care

- **Call Answer Time (75% in 20 seconds):** May 2023 70.9%, April 85.3%, March 87.9%, February 88.9%, January 85.4%, December 2022 87.5%. May 2022 71.1%, April 85.0%, March 85.8%, February 85.2%, January 83.9%, December 2021 84.6%. May is our busiest month of the year.
- **Monthly # calls nearly doubled (2,018 to 3,929) from last month.** While in 2022, our call answer time for May was 1.2% higher, in May 2023, we received over 500 fewer calls (3,410 compared to 3,929). Tremendous increase in use of web requests for termination and new service.
- **May 2023 Stats:** please see dashboard for additional metrics categories.



*\*Please note that our account balances greater than \$500 were substantially reduced with the application of more than \$1M in ARPA funds in early April 2022.*



### Communications and Marketing

- **Energy Assistance Program:** monthly bill credit program to offset by 12.5% the rate increases (3.95% proposed this year and 7.5% last year) began July 1, 2022 – boost to former Temporary Energy Assistance Program of 7.5%. Last year’s participants in Temporary Energy Assistance Program of 7.5% automatically enrolled in new program. So far, 146 customers (up from 138 last month) have been approved. Customers can learn about eligibility requirements and apply by visiting [burlingtonelectric.com/rates](http://burlingtonelectric.com/rates). As of April 2023, we have added this metric to the dashboard and beginning next month will report it on the dashboard and not as part of this report.
- **Vermont Emergency Rental Assistance Program (VERAP - [erap.vsha.org](http://erap.vsha.org)):** VERAP helps tenant households with paying rent, as well as paying utility and home energy costs. While December 31, 2022, was the last date to apply for assistance, the state will continue to provide certain levels of assistance for the most vulnerable Vermonters through June 2023. BED so far has received \$1.207M (up from \$1.195M) in funds awarded to its customers.
- **Vermont Homeowner’s Assistance Program (VHAP):** launched by the State of Vermont through the Vermont Housing Finance Agency (VHFA) in January 2022 to help prevent home foreclosure and displacement with assistance for overdue mortgage payments, homeowners’ association fees, property taxes, and utilities. So far, BED has certified 94 (up from 88 last month) applicants requesting \$59k (up from \$54k last month). As of last month, we had received \$38k in payments. The VHAP program applicant portal will close on June 12, 2023.
- **Net Zero Energy Podcast:** our May episodes of BED’s NZE Podcast feature VEIC Senior Consultant Adam Sherman and BED’s Chief Forester Betsy Lesnikoski talking about “biomass in the big picture” and Ita Meno, BED’s Project & Equity Analyst, sharing how they are working to help BED connect with all of our customers, even those who currently are unable to take steps down the path to NZE. Please take a listen at [burlingtonelectric.com/podcast](http://burlingtonelectric.com/podcast).
- **North Avenue News:** our June column promoted our Energy Assistance Program, E-bikes, E-motorcycles, E-lawn care equipment, customer appreciation nights at Lake Monsters games, and our 2<sup>nd</sup> annual NZE Festival, scheduled for Saturday, September 23 (please mark your calendars). Our ad promoted customer appreciation nights at the Lake Monsters games.

- Website and Facebook Highlights
  - Overall site-wide pageviews for May 2023 = 46,750
    - April = 40,507
    - March = 41,409
    - February = 31,290
    - January = 40,165
    - December = 20,272
    - November = 21,290
    - October = 21,797
    - September = 22,639
    - August = 27,972
    - July = 23,885
    - June = 24,859
    - May = 29,609
  - Unique homepage pageviews for May 2023 = 27,691
    - April = 23,286
    - March = 28,317
    - February = 15,040
    - January = 21,866
    - December = 8,207
    - November = 7,371
    - October = 6,762
    - September = 6,921
    - August = 8,895
    - July = 8,565
    - June = 7,860
    - May = 8,211
  - Full site visits for May 2023




- Visitors by website page

page title	May 2023	Apr 2023	Mar 2023	Feb 2023	Jan 2023	Dec 2022	Nov 2022	Oct 2022	Sep 2022	Aug 2022	July 2022	June 2022	May 2022
Burlington Electric Department	29074	24511	29277	19854	26553	8207	7134	7730	8080	10549	8565	9206	9740
My Bill	2811	2541	2657	2512	2735	2445	2520	2862	2850	3201	3113	3207	2811
Waste Wood Yard	1634	2010	330	259	593	590	1234	1332	920	1034	1070	1386	1928
Report A Problem	104	344	91	74	82	871	167	120	455	1646	103	188	233
Stop or Start Service	2256	603	269	230	289	273	294	348	407	841	738	951	2184
E-billing	254	207	240	240	280	234	241	319	330	362	443	524	287
Contact Us	1192	746	485	514	474	473	507	510	553	862	530	654	784
McNeil Generating Station	572	906	384	334	396	393	614	699	624	410	425	482	648
Heat Pumps	491	515	446	421	519	408	883	508	435	579	589	490	638
Rebates	776	831	645	562	860	554	584	588	627	689	1129	754	920
Rebate Center	833	769	652	595	732	524	617	609	597	876	852	934	1026
Rebates for 2023	59	73	71	219	333	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Green Stimulus	n/a	n/a	n/a	n/a	28	22	36	19	66	32	37	29	50
Stop or Start Service	2256	603	269	230	289	273	294	348	407	841	738	951	2184
Leadership Team	210	244	204	191	249	178	202	216	224	206	159	174	185
Rates & Fees	295	239	216	169	209	201	226	226	289	228	225	208	254
Usage Tracker Registration	127	92	99	115	118	112	124	120	124	177	118	128	113
RFP	329	354	331	316	498	413	374	516	419	268	225	335	268
Residential   Ways to Save	181	173	132	123	125	134	125	133	142	187	194	199	249
Electric Vehicles	355	454	414	431	492	331	356	295	355	497	483	324	273
E-Bikes	141	205	172	114	118	76	107	151	173	292	375	202	260
Net Zero Energy News	12	28	38	23	33	40	48	40	37	25	25	32	24
Electric Vehicles	355	454	414	431	492	331	356	295	355	497	483	324	273
Our Energy Portfolio	82	94	108	85	70	49	65	74	57	102	90	55	80
Lawn Care	274	205	103	79	120	67	71	123	110	135	249	259	472
RFP Detail	192	190	84	274	622	195	241	533	214	143	35	93	151
Defeat The Peak	5	5	7	3	13	8	9	12	15	333	242	15	25
Commercial   Ways to Save	40	47	43	28	34	46	49	38	31	40	46	48	43

- Top-performing May Facebook posts

Deer visiting our parking lot.



More visitors to BED HQ on Pine St. A remi...

Burlington Electric Department

Boost post

...

Mon May 22, 11:57a...

3.1K

Accounts Center accou...

410

Post engagements

139

Reactions


11

Comments

28

Shares

Letter we got from second grader from Champlain Elementary School



Happy Friday! #publicpower #transformers...

Burlington Electric Department

Boost post

...

Fri May 12, 2:47pm

483

Accounts Center accou...

36

Post engagements

7

Reactions

## Energy Services

### *UVM*

- Residential Dorm Lighting Upgrade Projects – BED continues working with a UVM Zone Manager and local lighting distributors to develop strategies to eliminate fluorescent fixtures products from dorm common areas, corridors and stairwells and replace them with LED technology.

### *UVMHC*

- UVM Medical Center / Energy Engineering Offer– A meeting was held this month between BED and the Facilities support group at UVMHC. Part of the purpose of the meeting was to discuss the Energy Engineering position that BED has offered to fund up-front, in order to move energy efficiency projects, forward that have languished due to lack of project management resources.
- UVM Medical Center / ACC Lighting Retrofits to LED – BED is working with several Facility entities to determine the least-cost methods of upgrading existing fluorescent fixtures to LED. The installation of QTY=1000 High-Bay LED fixtures has begun in the ACC mechanical rooms and switch-gear areas. Calculations have also been completed concerning energy savings in replacing fluorescent fixtures in the ACC corridors on five-floors with new LED technology, including fixture mounted sensors and Smart control technologies.

### *Other Services*

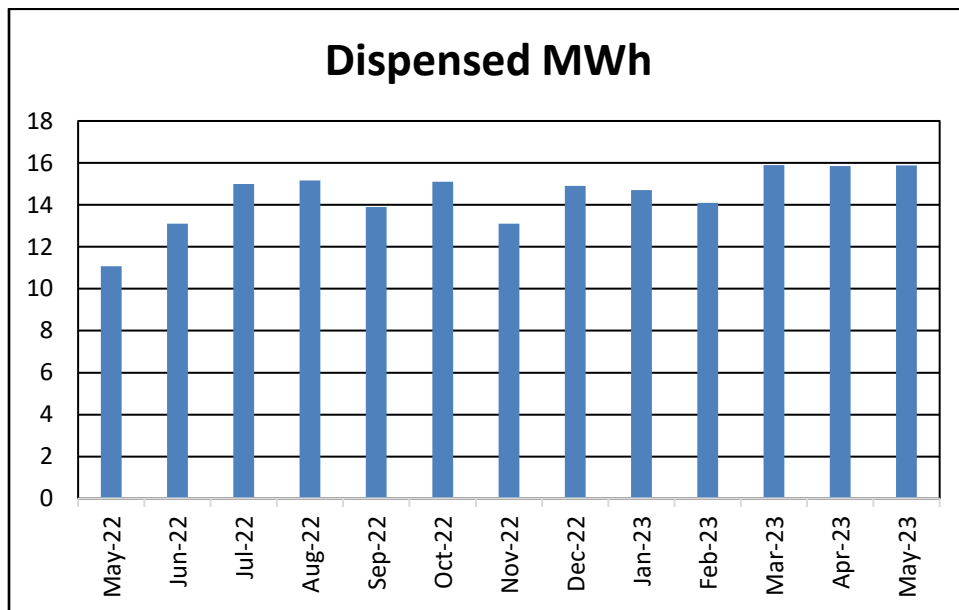
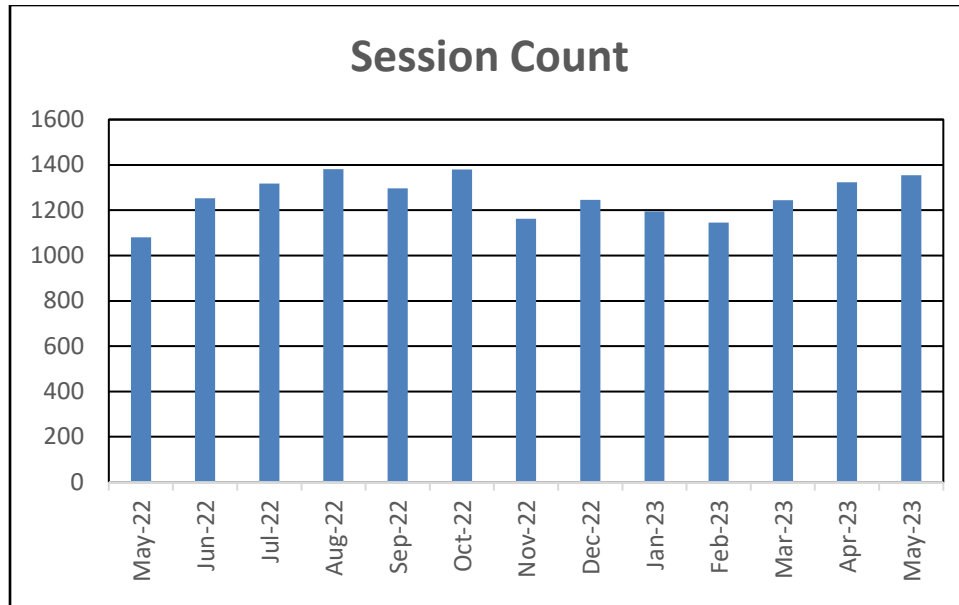
- Weatherization coordination with VGS- VGS requested electrical account usage histories (with customer permission) for 5 SF and 4 MF buildings (representing 17 living units) this month for the purpose of weatherization audit preparation and building energy use analysis. This brings the total YTD (2021-2023) requests to 180 SF and 140 MF buildings. The overall increase in multifamily building interest, in the VGS weatherization program, is being driven by the Burlington rental housing weatherization ordinance.
- Consolidated Communications / Chiller System Replacement – A local engineering company is working with the Owner to create a proposal for the replacement of the existing water-cooled chiller system at this large telecom facility on Main St. A delay in the process has occurred based on a re-design of the new chiller system to utilize a water-cooled chiller rather than one that is air-cooled. BED expects more information on this within a few weeks, so the work can continue.
- Consolidated Communications / Facility Lighting Upgrade – BED has been contacted by an out-of-state contractor who will be developing a plan to upgrade the old fluorescent lighting fixtures at 266 Main St., replacing the lamps with TLEDs. This will be a sizable facility lighting retrofit. BED completed a lighting upgrade analysis in 2007 and already has information on the existing fixtures. The contractor will be completing their own survey soon, with the project expected to be completed before the end of 2023.

- **Rhino Foods / Efficient Freezer Dehumidifier** – A meeting with the customer and BED was held last month. The purpose was to discuss the energy efficient features of the freezer dehumidifier recently installed, compared to a baseline dehumidifier. Our energy savings measure approach is to improve control of the new dehumidifier by integrating its operation into the existing building DDC. This month, BED installed a DENT power meter on the 3-phase power input to the unit, so that a baseline energy usage can be developed, to compare against usage with improved control strategies.
- **YMCA / Re-Commissioning of Boiler and DHW** – BED has been working with this customer for a number of months to assist in reducing their electric and natural gas usage. One problem still in need of resolution involves the stabilization of natural gas boiler short cycling, along with improved DHW temperature control. A meeting was held between BED and YMCA facilities this month, where they seemed receptive to the HVAC improvements.
- **Village Hydroponics / Shipping Container Vegetable Grow** – A non-profit in Burlington is working on a design for a fully enclosed vegetable grow facility which will fit into a standard metal shipping container. The focus is on non-summer only growing, and to provide vegetable types that may be unavailable in Vermont, especially in winter, but familiar to various other cultures now living here. Earlier in the year, a complete engineering design was delivered to BED for the facility. Several project clarifications were required last month so that the energy modeling results can be completed. In the meantime, there is difficulty in finalizing a location in Burlington where this small facility can be permanently installed.
- **City Market / Refrigeration System Electric Defrost Improvements** – With technical assistance from VEIC, BED provided a preliminary rebate offer for modifications to their freezer case defrosting system. The modifications will provide savings through a suction pressure increase in the compressor rack, as well as through floating the head pressure of the system. The project is being budgeted for next fiscal year and is expected to include a permanently installed refrigeration leak detection system.
- **Champlain School Apartments / Corridor Lighting Upgrades** – A BED site visit was arranged with the owner of this facility, which was the original Champlain School building, now converted into apartments. It is envisioned to replace all of the corridor and stairwell lighting fixtures with LED technology a total of about QTY=100 fixtures.
- **Main St. Landing / 60 Lake St. Boiler Circulation Pump Replacement** – BED has been working with the owner to identify a 7.5 HP pump replacement that will qualify for high-efficiency upstream rebates. The owner wants to ensure that they are buying the most efficient equipment in its class and take most advantage of the incentive offers that are available.
- **Black Diamond / Energy Audit** – At the request of the General Manager, BED has completed a site visit to this retailer on upper Church St. Initial investigation of AMI data has shown a high electric base load, as well as a pattern of KW spikes that tend to occur at the time of store opening. A final report has been delivered to the General Manager with a number of recommendations that could significantly reduce the monthly electric bill.

- Rhino Foods / New Freezer Warehouse High Efficiency Envelope Enhancements – A meeting was held this month with the owner and BED to discuss the incremental costs and energy savings associated with (1) an enhanced dock door seal system for ten loading docks (2) high speed roll-up doors (3) highly insulated and sealed personnel doors. Recommendations were discussed, and a decision was made to consolidate selected portions of these measures into a single project for which BED can then assign a single rebate offer.
- Pathways VT / 141 Maple St. New Construction (Soteria) – Several months ago, BED discussed this upcoming major renovation project with the architect and a local engineering company. This is a nine-room affordable housing facility with common areas and common bathrooms. Another meeting was held last month, with the Owner and with VGS. Cost constraints are focusing the mechanical work towards retention of the existing natural gas boiler baseboard heating system. Central A/C is intended to be added. A re-commissioning proposal was received by BED this month from the owner, to develop specific recommendations concerning building envelope improvements and the final configuration of the HVAC system. BED and VGS have agreed to split the cost of the proposal three ways with the Owner.
- Cambrian Rise / Building “M” Multi-Family NC – This is a 117-unit six-story building with parking below in two levels. Construction of the building has already begun. BED discussed with the owner’s representative the energy modeling rebate offer approach that we typically use for new construction projects. The incentive plan seemed to be well-received, as was the BED incentive offers to assist with MEP and building envelope commissioning.
- The Nest / 79 Pine St. Multi-family NC – This is a new 10-floor multi-family building of about 50,000 SF that will soon be completed and occupied. BED has been working with the owner and the energy modeler to develop an energy savings estimate and rebate offer for this project. This month, blower door test results were supplied to BED, as well as the full drawing set for the building. This will allow BED to evaluate the energy model for consistency and accuracy compared to the actual building design.

### *Electric Vehicles*

- The EVSE dispensed a total of 15.9MWh and supported 1,355 sessions.
- The top 3 sales were 92, 93 & 96kWh and occurred at the Cherry St. garage, Summit St./Champlain College & Hannaford.
- The top 10 sessions (0.8% of total) accounted for 5.1% (805kWh) of the total monthly sales. The ten sessions ranged from 68kWh-96kWh.
- The EVSE served 691 unique drivers last month.
- DCFC installation has begun.
- We delivered a ChargePoint CT4000 to Parks and Recreation to install at Oakledge Park. It will be located behind their meter so we will have to map out a reimbursement strategy.
- The Flo station Gateway is now operating. (Flo data is not incorporated into any of these statistics or charts).
- We received a report that Port 2 on BE13 was not providing a secure connection. ChargePoint couldn’t find any evidence of the problem in the session data. ES staff verified issue and are exploring replacement cost.
- Session Count and Dispensed Energy plots from the public charging network are shown below.



- Number of EV and PHEV rebates to date – 532 (of this 97 LMI rebates to date as shown below)
  - New All Electric Vehicle – 222
  - New All Electric Vehicle (LMI) – 40
  - New PHEV – 133
  - New PHEV (LMI) – 41
  - Used All Electric Vehicle – 42
  - Used All Electric Vehicle (LMI) – 8
  - Used PHEV – 22
  - Used PHEV (LMI) – 3
  - New All Electric Vehicle (\$60K plus) – 15
  - New PHEV (\$60K plus) – 2

- Number of customer loans with lending partners to date – 5
- Number of customers currently participating in the new EV Charging Rate- 204
- Number of E-Motorcycle rebates to date – 1

#### **Electric Vehicle Charging Stations**

- Number of home EV charging stations rebates to date – 151
- Number of Multi-family EV charging stations rebates to date – 1
- Number of Multi-family Non-EVmatch charging stations rebates to date (LMI) – 3
- Number of Multi-family Non-EVmatch charging stations rebates to date – 3
- Number of Multi-family EVmatch Public charging stations rebates to date – 2
- Number of Level 2 Workplace charging stations rebates to date – 8

#### **Electric Lawn Equipment to Date**

- Number of e-mower rebates to date – 611 (11 commercial & 600 residential)
- Number of e-leaf blowers to date – 67
- Number of Residential e-Trimmers – 59
- Number of Residential e-chainsaws – 11

#### **Heat Pump Installations to Date (since the September 2019 NZEC announcement)**

- Total Number of Heat Pump Technology rebates to date- 1,005 (of this 139 LMI rebates to date as shown below)
  - Number of ductless heat pumps to date – 600
  - Number of LMI eligible ductless heat pumps to date – 112
  - Number of centrally ducted heat pumps to date – 208
  - Number of LMI eligible centrally ducted heat pumps to date – 18
  - Number of air-to-water heat pumps to date – 1
  - Number of commercial VRF heat pump systems to date – 2
  - Number of geo-thermal heat pump systems to date – 1
  - Number of heat pump hot water heaters to date – 58
  - Number of LMI eligible heat pump hot water heaters participants to date – 9

#### **Electric E-Bikes to Date**

- Number of e-bike rebates to date – 462

#### **Electric Induction Stovetops to Date (new offering in Jan 2021)**

- Number of induction Stovetops rebates to date – 42

#### **Electric Snow Blowers to Date (new offering in Jan 2022)**

- Number of snow blower rebates to date – 17

## BED 2022-2023 Strategic Direction Dashboard

Metrics by Strategic Initiative	Assigned	Target	May 2023 Actuals	Apr 2023 Actuals	Mar 2023 Actuals	Feb 2023 Actuals	Jan 2023 Actuals	2022 Yearly Actual	2021 Yearly Actual	2020 Yearly Actual
<b>Engage Customers and Community</b>										
Call answer time 75% within 20 seconds	Andi	75%	71%	85%	88%	89%	85%	avg 82%	avg 82%	avg 81%
Delinquent accounts >\$500	Andi	0	122	163	197	203	194	avg 188	avg 529	avg 201
Disconnects for non-payment	Andi	0	42	77	32	3	0	12	0	45
Energy Assistance Program Participants	Andi		146	138	134					
# of residential weatherization completions	Chris	10	2	3	1		0	5	5	3
Weatherization completions in rental properties	Chris		2	2	0	2	0	6	0	0
# or % of homes or SF weatherized	Chris		TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
# of commercial building with improved thermal envelopes	Chris		1	1	1	0	0	4	5	5
% of EEU charge from LMI customers spent on EE services for LMI customers (cumulative for year)	Chris	\$ 180,240		\$ 464,839	\$ 375,327	\$ 350,165	\$ 348,213	\$ 335,234	TBD	TBD
<b>Strengthen Reliability</b>										
SAIFI (AVG interruptions/customer) (annual target)	Munir	< 2.1	0.01	0.06	0.0	0.0	0.01	1.06	0.22	1.50
CAIDI (AVG time in hrs to restore service) (annual target)	Munir	< 1.2	0.91	1.51	1.36	1.22	2.17	21.39		0.55
Distribution System Unplanned Outages (annual target)	Munir	82	3	2	0	1	3	61	44	90
McNeil Forced Outages	Munir	0	0	1	1	0	1	14	5	21
W1H Forced Outages	Munir	0	0	0	0	0	0	6	9	2
GT Forced Outages	Munir	0	1	1	1	1	1	6	2	3
<b>Invest in Our People, Processes, and Technology</b>										
Avg. # of days to fill positions under recruitment	Emily	120	211	155	178	238	179	100	68	179
# of budgeted positions vacant	Emily	0	11	11	10	7	7	avg 9	avg 9	6

## BED 2022-2023 Strategic Direction Dashboard

Metrics by Strategic Initiative	Assigned	Target	May 2023 Actuals	Apr 2023 Actuals	Mar 2023 Actuals	Feb 2023 Actuals	Jan 2023 Actuals	2022 Yearly Actual	2021 Yearly Actual	2020 Yearly Actual
<b>Innovate to Reach Net Zero Energy</b>										
<i>Tier 3 Program</i>										
# of residential heat pump installs	Chris	See NZE Roadmap Goals below	24	13	8	10	25	255	315	203
# of commercial heat pump installs	Chris		1	0	0	1	0	4	4	13
# of residential hot water heat pump installs	Chris		5	1	1	0	6	26	14	6
# of commercial hot water heat pump installs	Chris		0	0	0	0	0	0	0	0
Heat pump rebates	Chris		31	14	9	12	26	271	328	212
Heat pump hot water heater rebates	Chris		3	1	1	16	6	18	15	3
LMI heat pump rebates	Chris		0	1	2	0	0	43	28	6
Heat pump technology installs in rental properties	Chris		1	1	1	1	1	10	14	9
LMI heat pump hot water heater rebates	Chris		0	0	2	1	0	1	2	0
EV rebates - new	Chris		8	5	10	6	4	53	67	14
EV rebates - pre-owned	Chris		0	5	0	0	0	18	7	8
LMI EV rebates	Chris		0	0	1	2	1	9	11	7
PHEV rebates - new	Chris		1	0	4	3	3	27	41	10
PHEV rebates - preowned	Chris		1	1	1	1	0	12	6	5
LMI PHEV rebates	Chris		0	0	0	0	0	15	13	6
Public EV chargers in BTM (total)	Chris		30 ports	30 ports	30 ports	30 ports	30 ports	30 ports	27 ports	27 ports
Public EV charger energy dispensed (kWh)	Chris		15,900	16,000	15,900	14,100	14,700	151,360	86,570	35,690
Home EV charging station rebates	Chris		10	12	8	5	3	70	32	20
EV rate charging customers (total)	Chris		204	192	178	168	162	157	40	40
Level 2 charger rebates	Chris		2	1	0	0	1	11	10	0
Level 1 charger rebates	Chris		0	0	0	0	0	-	0	1
E-bike rebates	Chris		23	13	3	3	0	152	88	36
E-mower rebates	Chris		42	16	0	0	1	159	154	95
E-forklift rebates	Chris		0	0	0	0	0	1	0	0
MWE of Tier 3 measures installed	James		1,768	1,563	965	786	1,602	22,837	23,763	35,112
% Tier 3 obligation met with program measures	James	100%	35%	26%	17%	12%	8%	131%	159%	283%
<i>Net Zero Energy Roadmap Goals</i>										
# of solar net metering projects installed	Chris		1	3	5	4	5	33	29	24
No. of homes receiving NZE Home Roadmaps	Chris		0	0	0	0	0	7	10	7
Residential heat pumps for space heating (no. of homes)	Emily	2022: 8615	NA	NA	NA	NA	NA	TBD	1235, 20% of goal	891
Commercial heat pumps for space heating (1000 SF floor space served)	Emily	2022: 5397	NA	NA	NA	NA	NA	TBD	405, 11% of goal	374
Residential heat pumps for water heating (no. of homes)	Emily	2022: 4365	NA	NA	NA	NA	NA	TBD	108, 4% of goal	108
Commercial heat pumps for water heating (1000 SF floor space served)	Emily	2022: 1019	NA	NA	NA	NA	NA	TBD	0	0
EV registrations in BTM (light-duty)	Emily	2022: 2294	NA	NA	NA	NA	NA	TBD	549, 45% of goal	361
Greenhouse gas emissions (1000 metric tons CO2)	Emily	2022: 150	NA	NA	NA	NA	NA	TBD	188, 114% of goal	185
Fossil fuel consumption (billion BTU)	Emily	2022: 2418	NA	NA	NA	NA	NA	TBD	3220, 120% of goal	3,182

## BED 2022-2023 Strategic Direction Dashboard

Metrics by Strategic Initiative	Assigned	Target	May 2023 Actuals	Apr 2023 Actuals	Mar 2023 Actuals	Feb 2023 Actuals	Jan 2023 Actuals	2022 Yearly Actual	2021 Yearly Actual	2020 Yearly Actual
<i>Demand Response</i>										
<b>Manage Budget and Risks Responsibly</b>										
<i>Safety &amp; Environmental</i>										
No. of workers' compensation/accidents per month	Paul	0	1	1	0	1	0	16	4	8
Total Paid losses for workers' compensation accidents (for the month)	Paul	annual	\$5,357	\$4,412	\$2,472	\$8,466	\$4,031	\$ 145,102	\$ 93,612	\$ 165,402
Lost Time Incident Rate (days/year) (Dec numbers reflect annual results)	Paul	<= 3.5 annual	N/A	N/A	N/A	N/A	N/A	1.99	0.0	0.93
Lost Time Severity Rate (days/year) (Dec numbers reflect annual results)	Paul	<= 71 annual	N/A	N/A	N/A	N/A	N/A	112.63	0.0	41.71
Lost work days per month	Paul	0	0	0	0	0	0	avg 9	0.0	45
NOx reporting levels to EPA (Quarterly) (lbs/mmbtu)	Paul	<0.075	0.075	0.070	0.070	0.070	0.067	0.06	0.07	0.07
# of reported spills, waste water incidents (monthly)	Paul	0	0	0	0	0	0	6	4	4
Phosphorus levels to DEC in lbs (monthly/yearly total)	Paul	<0.8/37	0.048/0.674	0.294/0.650	0.037/0.475	.050/.543	0.017/0.560	0.688	2.028	
# of new power outage claims reported (monthly)	Paul	1	0	0	0	0	0	5	7	4
# of new auto/property/other liability claims reported (monthly)	Paul	2	6	2	4	2	2	27	18	27
<i>Purchasing &amp; Facilities</i>										
# of Purchase Orders for Inventory (Target: avg for winter months)	Jeff T	42	36	59	56	72	40	636	644	593
\$ value of Purchase Orders for Inv. (Target: avg dollars spent during winter)	Jeff T	\$78,000	\$78,868	\$130,111	\$94,837	\$196,551	\$229,809	\$ 4,861,023	\$ 3,278,620	975,531
# of stock issued for Inventory (Target: avg during winter months)	Jeff T	320	695	575	571	516	569	6,187	4,402	4,545
\$ value of stock issued for Inventory (Target: avg. during winter)	Jeff T	\$ 65,000	\$ 141,919	\$ 317,305	\$ 130,896	\$ 175,308	\$ 275,666	\$ 2,200,233	855,456	1,086,478
# of posters pulled from poles monthly (Target: goal to remove each month)	Jeff T	58	88	43	59	43	73	900	2,728	627
# of Spark Space and Auditorium setup/breakdowns monthly (Target: Covid impact)	Jeff T	3	23	18	20	9	16	132	88	87
<i>Finance</i>										
Debt service coverage ratio	Emily	1.25		3.83	2.36	2.64	3.91	NA-FY basis	NA-FY basis	NA-FY basis
Adjusted debt service coverage ratio	Emily	1.5		1.02	0.67	0.8	1.02	NA-FY basis	NA-FY basis	NA-FY basis
Days unrestricted cash on hand	Emily	>90		117	93	100	120	NA-FY basis	NA-FY basis	NA-FY basis
<i>Power Supply</i>										
McNeil generation (MWH) (100%)	Munir	per budget	1,360	0	22,522	29,391	30,034	228,981	273,355	192,696
McNeil availability factor	Munir	100%	98%	32%	94%	100%	84%	67%	80%	
McNeil capacity factor	Munir	per budget	3.7%	0%	61%	87%	81%	52.4%	62.4%	
Winooski One generation (MWH)	Munir	per budget	2,505	3,717	2,878	2,489	3,609	25,350	24,752	21,194
Winooski One availability factor	Munir	100%	99%	99%	99%	99%	99%	98.3%	97%	
Winooski One capacity factor	Munir	per budget	46%	69.8%	52.3%	50.1%	67.7%	41.7%	37%	
Gas Turbine generation (MWH)	Munir	NA	0	0	8.1	4.7	0.0	356	373	441
Gas Turbine availability factor	Munir	100%	39%	35%	36%	0%	0%	54.5%	96%	
Gas Turbine capacity factor	Munir	NA	0%	0%	0%	0%	0%	0.2%	0.21%	
BTV solar PV production (mWh)	James		723	531	359	233	82	5,260	5,015	5,182
Cost of power supply - gross (\$000)	James			\$2,509	\$3,558	\$2,953	\$2,772	\$36,755	\$30,285	\$31,081
Cost of power supply - net (\$000)	James			\$1,534	\$3,558	\$927	\$2,772	\$27,487	\$22,134	\$23,388
Average cost of power supply - gross \$/KWH	James			\$0.10	\$0.13	\$0.11	\$0.10	\$0.11	\$0.09	\$0.10
Average cost of power supply - net \$/KWH	James			\$0.06	\$0.13	\$0.04	\$0.10	\$0.08	\$0.07	\$0.08



*FY 2023  
Financial Review  
April*

*May 26, 2023*

# **Burlington Electric Department Financial Review**

**FY 2023**

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## FINANCIAL HIGHLIGHTS – BUDGET VS ACTUAL as of April FY23

(\$000)	Full Yr Budget	CURRENT MONTH			YEAR TO DATE		
		Budget	Actual	Variance	Budget	Actual	Variance
Sales to Customers	51,553	3,689	3,752	63	43,371	42,729	(642)
Other Revenues	3,631	271	438	167	2,940	4,497	1,557
Power Supply Revenues	8,385	0	975	975	6,214	6,827	612
Total Operating Revenues	63,569	3,959	5,165	1,205	52,526	54,054	1,528
Power Supply Expense (Net)	31,423	2,656	2,510	146	25,645	29,608	(3,963)
Operating Expense	22,952	2,088	1,350	739	18,191	18,003	188
Depreciation & Amortization	6,391	533	516	17	5,326	5,157	168
Taxes	3,466	279	264	14	2,888	2,693	195
Sub-Total Expenses	64,232	5,556	4,640	916	52,050	55,461	(3,411)
Operating Income	(664)	(1,596)	525	2,122	476	(1,407)	(1,883)
Other Income & Deductions	5,009	462	595	133	4,116	4,600	484
Interest Expense	3,114	242	252	(10)	2,630	2,963	(333)
Net Income (Loss)	1,231	(1,376)	868	2,244	1,962	231	(1,731)

### Year-to-Date Results:

- **Sales to Customers** down \$642,000 (1.6%). Non-Residential Sales down \$514,800 and Residential Sales down \$127,800.
- **Other Revenues** up \$1,557,000 (53%)
  - a. DSM billable (customer driven).
- **Power Supply Revenues** up \$612,000 (9.9%); budgeted in May received in April.
  - a. McNeil REC revenue of \$3,522,000 compared to a budget of \$3,286,000.
  - b. Wind REC revenue of \$2,614,000 compared to a budget of \$2,168,000.
  - c. Hydro REC revenue of \$397,000 compared to a budget of \$601,000.
  - d. Other REC revenue down \$165,000.
- **Power Supply Expenses (Net)** up \$3,963,000 (15%)
  - a. Purchased Power up \$5,008,000.
  - b. Fuel down \$620,000.
  - c. Transmission down, \$425,000.
- **Taxes** down \$195,000 (7%)
  - a. Actual Payment in Lieu of Tax (PILOT) is less than budget assumption.
- **Operating Expenses** down \$188,000 (1%)
  - a. DSM (rebates & outside services) higher \$1,727,000. Offset by items that are less than budget. This includes labor and overhead (\$885,000).
- **Other Income & Deductions** up \$484,000 (11.8%)
  - a. Interest/investment income up \$359,000 and unrealized gain on investment up 32,100.
  - b. Timing: retirements budgeted in August, December and February delayed.
  - c. Budget assumed customer contributions for Champlain Pkwy, \$459,000 and other overhead/underground billable, \$175,200. Actual includes prior year billable for UVM LCOM \$237,400, Champlain Parkway \$138,700, University Place decorative lighting \$159,700, other overhead/underground projects and grant proceeds.

## FINANCIAL HIGHLIGHTS – BUDGET VS ACTUAL as of April FY23

Capital Spending – April YTD (\$000's)				
Plant Type	Full Yr. Budget	Budget	Actual	% Spent
Production	\$1,637	\$1,118	\$1,513	92%
Other	267	240	119	45%
Distribution	4,460	4,130	3,281	74%
General	2,127	1,868	1,012	48%
<b>Sub-Total</b>	<b>8,491</b>	<b>7,356</b>	<b>5,925</b>	<b>70%</b>
Transmission	632	632	634	100%
<b>Total</b>	<b>\$9,123</b>	<b>\$7,988</b>	<b>\$6,560</b>	<b>72%</b>

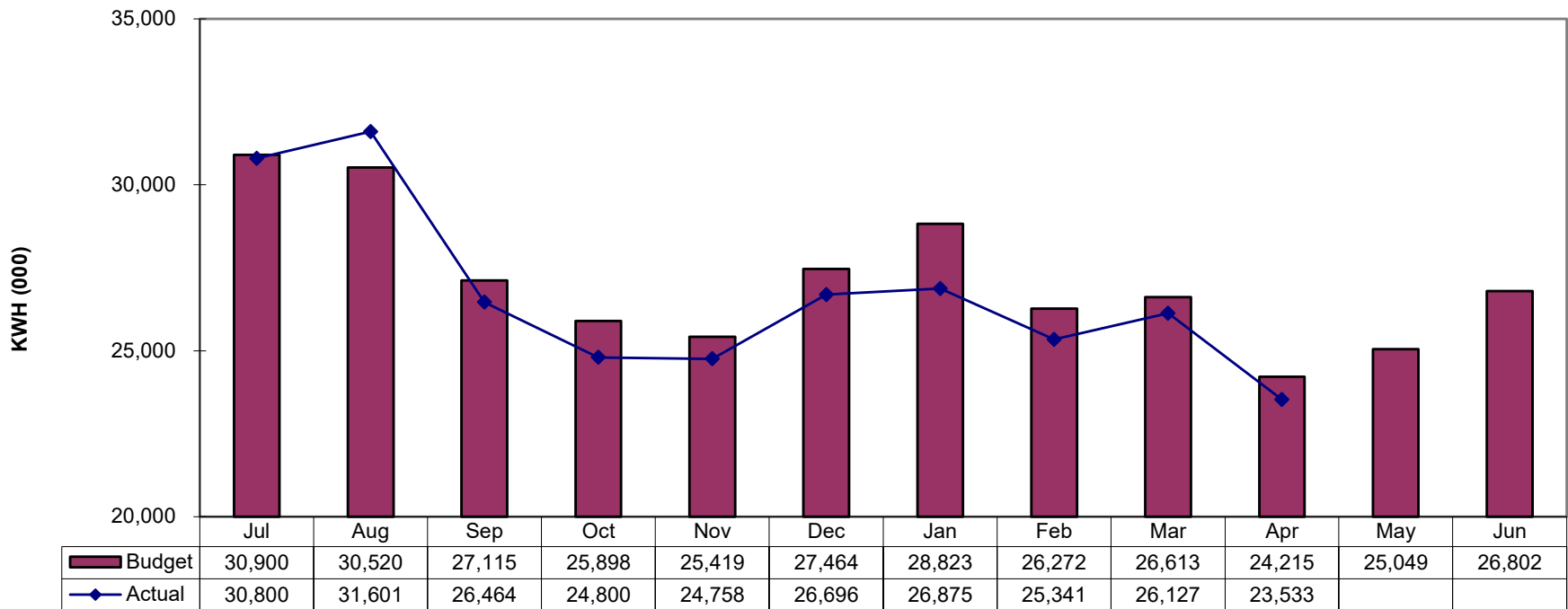
- (1) **Production** – Gas Turbine is higher than planned, \$590,000.
- (2) **Other** – Spending for direct current fast chargers is within budget. Timing of other projects include Distributed Energy Resources, and research & development.
- (3) **Distribution** – Timing of various projects.
- (4) **General** – IT Forward project budgeted throughout the year; YTD expenses of \$600,900 compared to a budget of \$1,176,200. Virtualized Hardware Refresh has deferred to FY24, \$109,500.

As of April 30, 2023 Operating Cash and Investments	
Operating Funds	\$4,602,600
Operating Fund – CDs	\$970,900
Total Operating Cash	\$5,573,500

Credit Rating Factors – April 2023				
	"A"	"Baa"	Current	3 Year Average
Debt Service Coverage Ratio	1.25	1.25	2.96	3.83
Adjusted Debt Service Coverage Ratio	1.50	1.10	0.92	1.02
Cash Coverage - Days Cash on Hand	90	30	85	117

**Burlington Electric Department  
Fiscal Year Ending June 30, 2023**

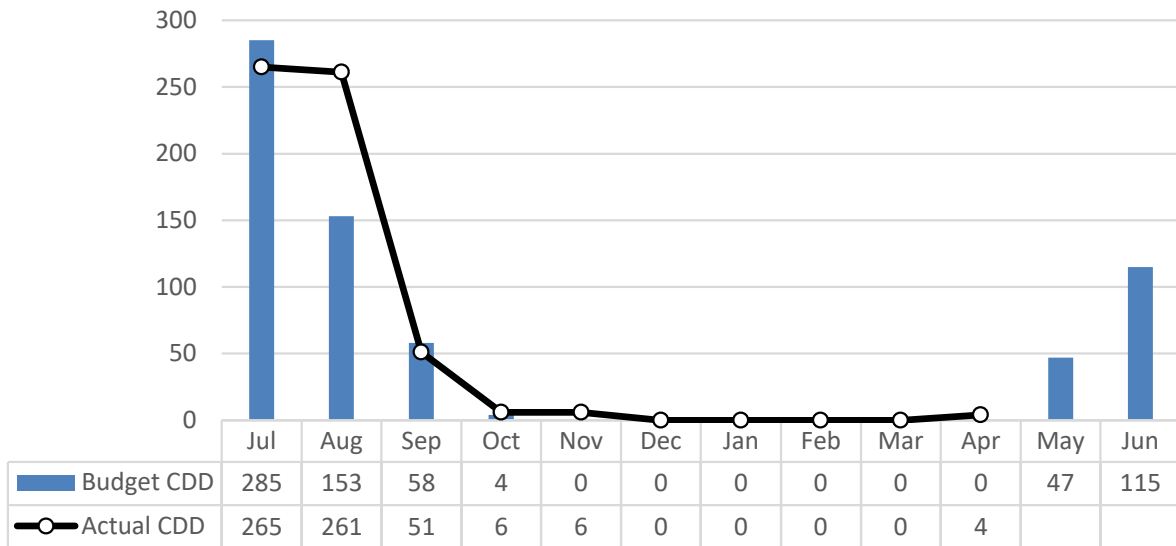
**Total Sales to Customers - KWH  
Monthly**



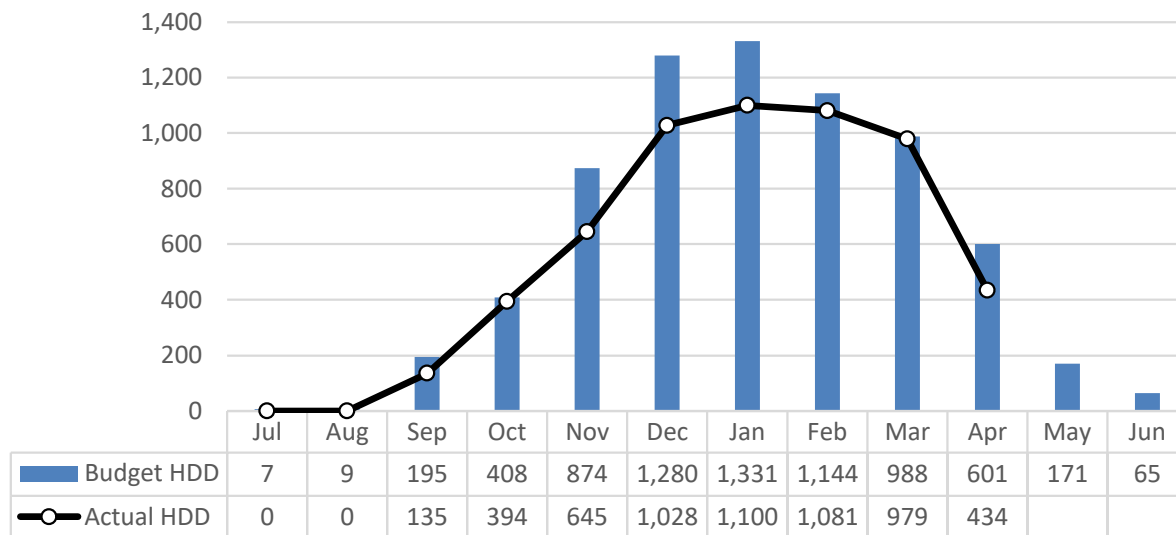
KWH Sales to Customers (YTD)												
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
<b>Budget</b>	30,900	61,420	88,534	114,432	139,851	167,316	196,138	222,410	249,023	273,239	298,288	325,090
<b>Actual</b>	30,800	62,400	88,864	113,664	138,422	165,118	191,993	217,334	243,461	266,995		

## FY 2023

### Cooling Degree Days (CDD)



### Heating Degree Days (HDD)

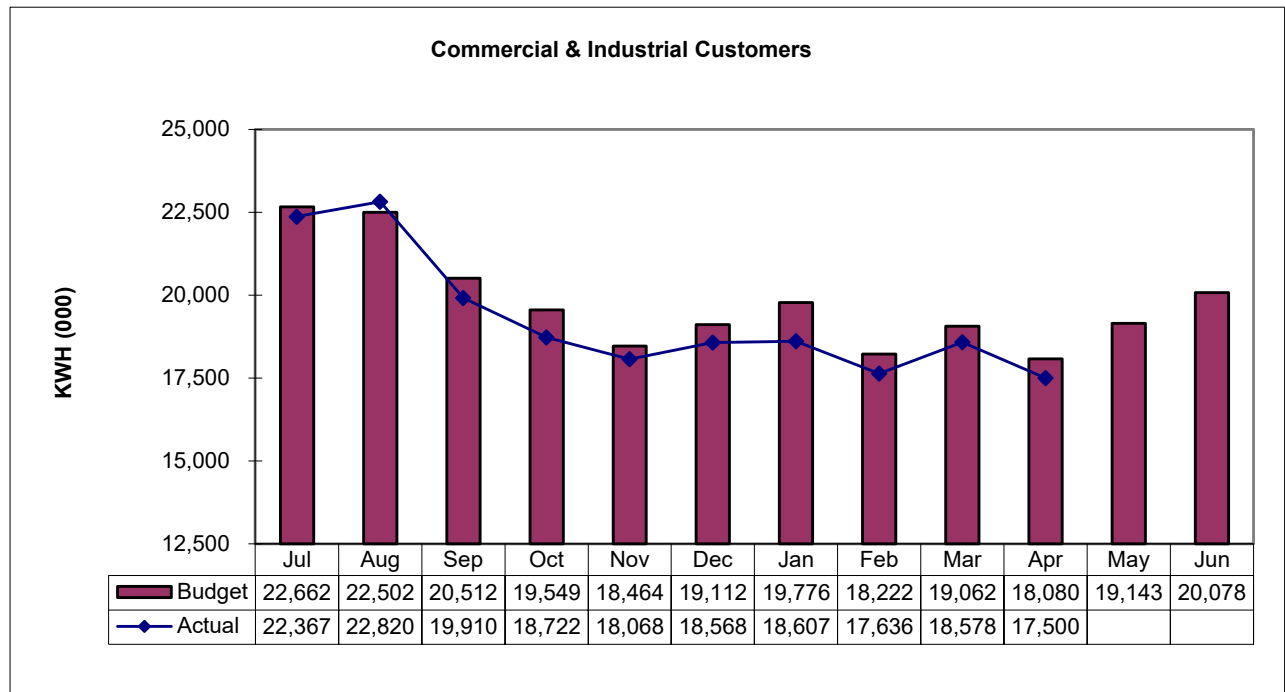
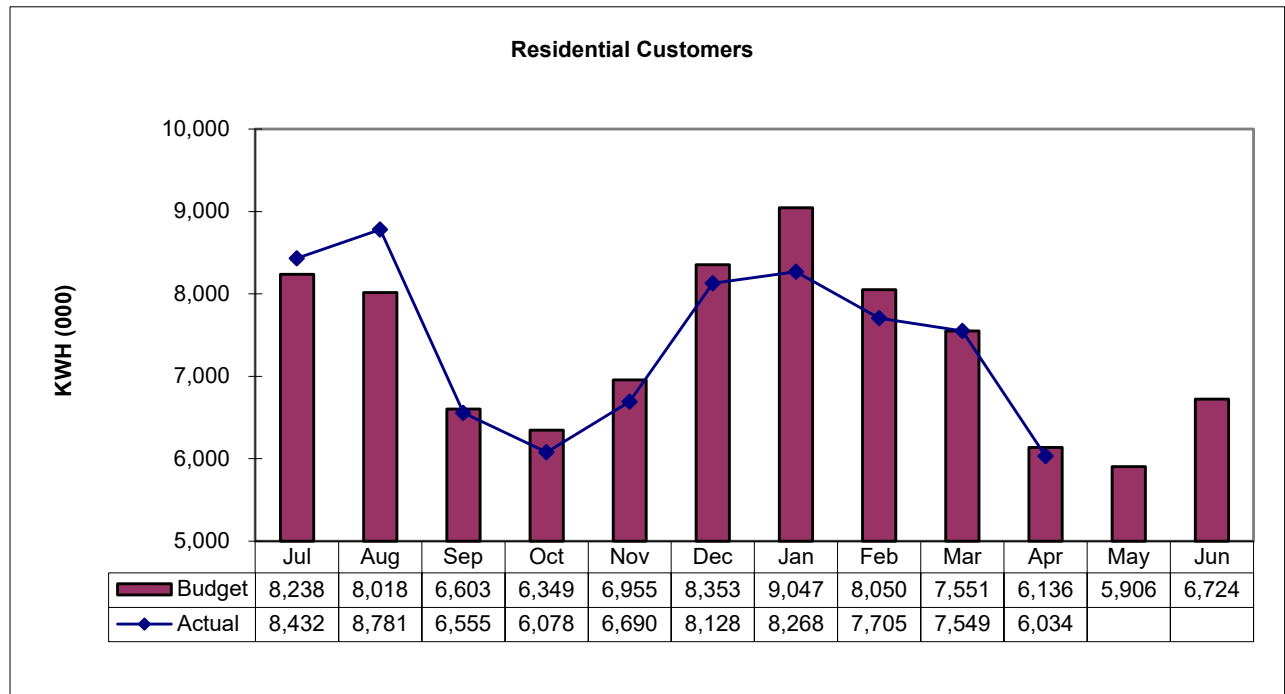


### Average Monthly Temperature

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Budget	72	71	63	50	39	28	20	22	32	45	58	67
Actual	73	73	62	52	44	30	29	26	33	51		

**CDD/HDD definition per National Weather Service:** Degree days are based on the assumption that when the outside temperature is 65°F, we don't need heating or cooling to be comfortable. Degree days are the difference between the daily temperature mean (high temperature plus low temperature divided by two) and 65°F. If the temperature mean is above 65°F, we subtract 65 from the mean and the result is Cooling Degree Days. If the temperature mean is below 65°F, we subtract the mean from 65 and the result is Heating Degree Days.

**Burlington Electric Department  
Fiscal Year Ending June 30, 2023  
KWH Sales**



*Street Lighting is included with Commercial & Industrial Customers.*

# **Net Power Supply Costs** **April - FY 2023**

	(\$000)						
	Current Month				Year-to-Date		
	Budget	Actual	Variance		Budget	Actual	Variance
<b>Expenses:</b>							
Fuel (p. 7)	\$179	\$16	\$163	(1)	\$8,328	\$7,708	\$620 (1)
Purchased Power (p.11)	1,673	1,721	(48)	(2)	9,169	14,177	(5,008) (2)
Transmission Fees - ISO	565	534	31	(3)	6,228	5,955	273 (3)
Transmission Fees - Velco	174	144	31	(4)	1,304	1,032	272 (4)
Transmission Fees - Other	65	95	(30)	(5)	616	735	(119) (5)
Total Expenses	2,656	2,509	147		25,645	29,608	(3,963)
<b>Revenues:</b>							
Renewable Energy Certificates - McNeil	0	313	313	(6)	3,286	3,522	236
Renewable Energy Certificates - Wind	0	474	474	(6)	2,168	2,614	446
Renewable Energy Certificates - Hydro	0	188	188	(6)	601	697	96
Renewable Energy Certificates - Other	0	0	0		160	(6)	(165) (6)
Total Revenues	0	975	975	(6)	6,214	6,827	612 (7)
Net Power Supply Costs	\$2,656	\$1,534	\$1,122		\$19,431	\$22,781	(3,350)
Load (MWh)	24,912	24,427	(485)		280,725	274,400	(6,325)
\$/MWh	\$106.62	\$62.79	(\$43.83)		\$69.22	\$83.02	\$13.81

## **Current Month:**

- (1) See detail on page 7.
- (2) See detail on page 11.
- (3) ISO-NE Schedule 9 transmission rate below Budget.
- (4) VELCO Common Charges and BED's share of Common Charges under Budget.
- (5) NYPA NYISO Transmission includes true up from underestimation in March.
- (6) Timing: REC sales Budgeted in May, completed in April.

## **YTD:**

- (1) See detail on page 7.
- (2) See detail on page 11.
- (3) Peak Load and Transmission rates under Budget.
- (4) VELCO Common Charges and BED's share of Common Charges under Budget.
- (5) NYPA NYISO Transmission charges over Budget.
- (6) Other (Solar) REC sales generally completed towards the end of the fiscal year. Negative due to timing.
- (7) REC Sales projected to be 11% under Budget due to lower McNeil and Winooski One production in calendar year 2022.

**Net Power Supply Costs**  
**April - FY 2023**

	(\$000)						
	Current Month				Year-to-Date		
	Budget	Actual	Variance		Budget	Actual	Variance
<u>FUEL:</u>							
McNeil:							
Fuel Consumed	15	0	15	(1)	5,933	5,849	84 (1)
Swanton Yard	18	0	18	(1)	476	457	18 (1)
Train Deliveries	38	0	38	(1)	961	853	108 (1)
Labor & Other Expenses	101	16	85	(2)	821	525	296 (2)
Total McNeil Fuel	172	16	156		8,190	7,684	506
Gas Turbine	7	0	7	(3)	138	25	114 (3)
Total Fuel	179	16	163		8,328	7,708	620

**Current Month:**

(1) No McNeil production. (p. 9)

(2) Actual labor is based on tonnage consumed by McNeil; budgeted labor is based on personnel/days in the month, thus timing issues for comparative purposes.

(3) No GT Production.

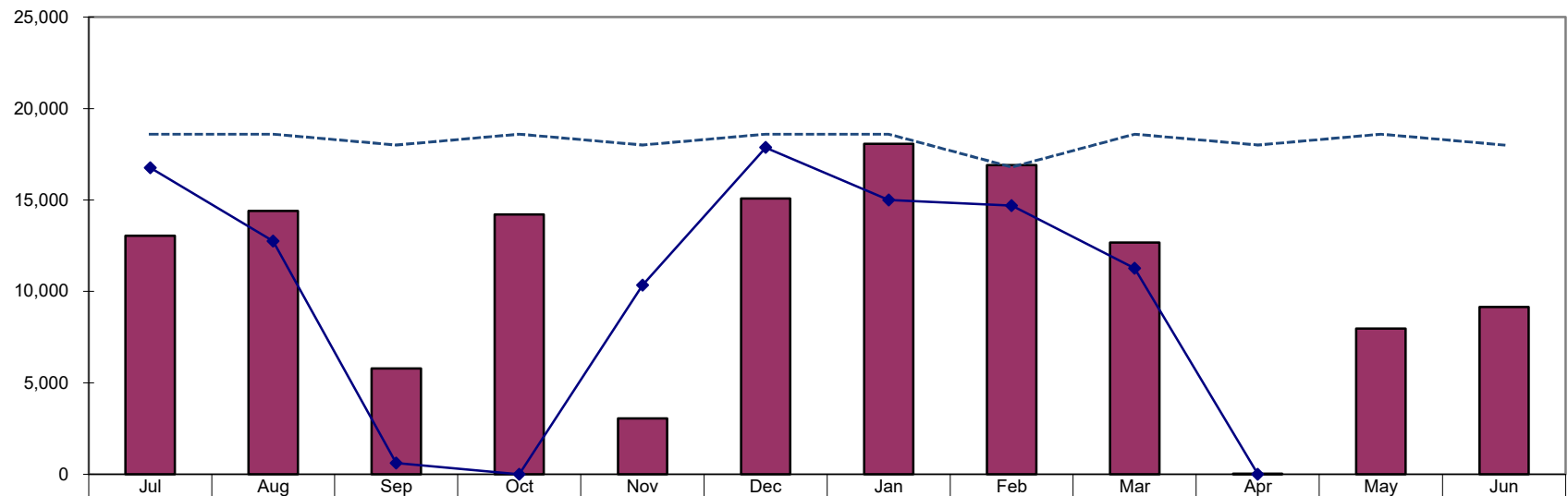
**YTD:**

(1) McNeil production 12% under Budget. Wood Price per Ton 17% over Budget. (p. 9)

(2) Actual labor is based on tonnage consumed by McNeil; budgeted labor is based on personnel/days in the month, thus timing issues for comparative purposes.

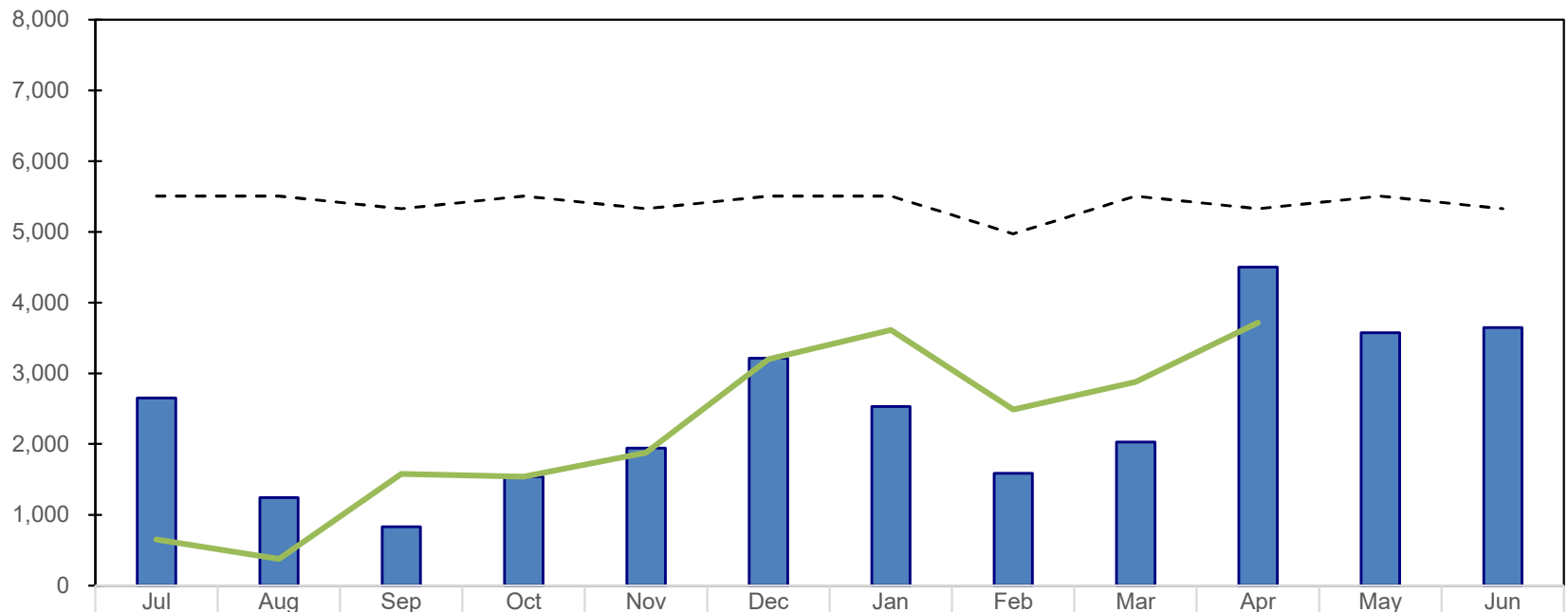
(3) GT produced 70 MWh (77% under Budget). GT outage started on 7/20/22. B Jet was brought online in the middle of March. A Jet continues to be offline, expected to be online in late June.

**Burlington Electric Department  
McNeil Plant - MWH Production (50%)  
FY 2023**



<span style="display:inline-block; width:15px; height:10px; background-color:maroon; border:1px solid black;"></span> Budget	13,047	14,395	5,792	14,209	3,057	15,088	18,082	16,912	12,671	23	7,963	9,152
<span style="display:inline-block; width:15px; height:1px; background-color:blue; border:1px solid black;"></span> ♦ Actual	16,763	12,756	619	0	10,354	17,868	14,993	14,691	11,263	0		
<span style="display:inline-block; width:15px; border-top:1px dashed blue; border:1px solid black;"></span> Maximum	18,600	18,600	18,000	18,600	18,000	18,600	18,600	16,800	18,600	18,000	18,600	18,000

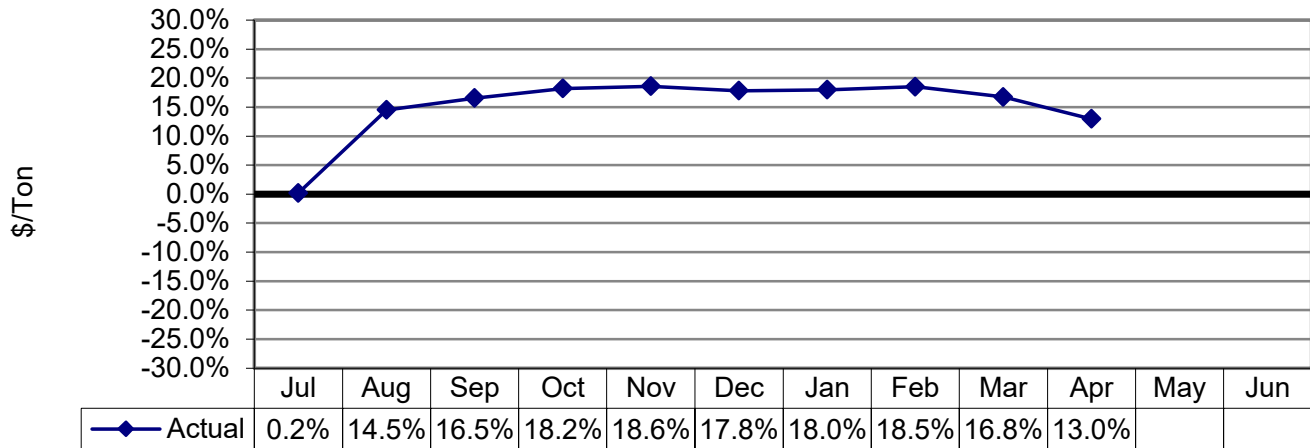
**Burlington Electric Department  
Winooski One - MWH Production  
FY 2023**



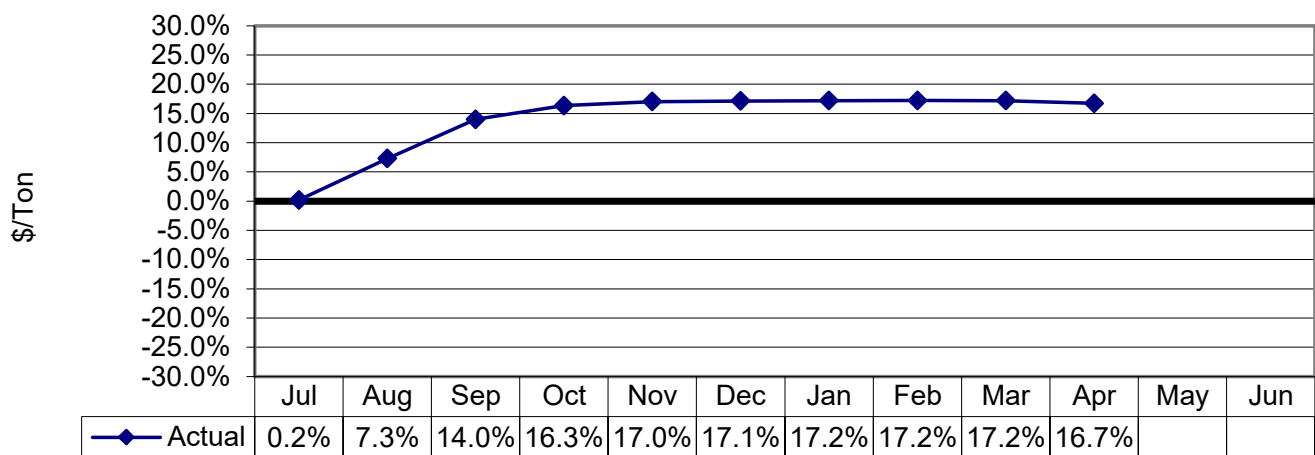
<span style="color: blue;">■</span> Budget	2,650	1,246	832	1,541	1,942	3,216	2,531	1,587	2,032	4,503	3,575	3,643
<span style="color: green;">—</span> Actual	651	376	1,578	1,541	1,878	3,197	3,609	2,488	2,878	3,717		
<span style="color: black;">- - -</span> Maximum	5,506	5,506	5,328	5,506	5,328	5,506	5,506	4,973	5,506	5,328	5,506	5,328

## Burlington Electric Department Fiscal Year 2023

### Woodchips Price Per Ton Monthly Variance



### Woodchips Price Per Ton Year-to-Date Variance



\* Wood only. Does not include other costs.

**Net Power Supply Costs**  
**April - FY 2023**

(\$000)								
	Current Month				Year-to-Date			
	Budget	Actual	Variance		Budget	Actual	Variance	
<b><u>PURCHASED POWER:</u></b>								
Non-Energy (capacity)	85	215	(130)	(1)	909	2,157	(1,247)	(1)
<b>Energy:</b>								
Georgia Mountain Wind	280	268	12	(2)	2,679	2,751	(72)	(2)
Hancock Wind	322	238	84	(3)	2,831	2,493	338	(3)
VT Wind	250	271	(22)	(4)	2,174	1,667	507	(4)
Hydro Quebec	283	283	(0)		2,719	2,719	(0)	
Great River Hydro	170	193	(23)	(5)	1,706	1,794	(88)	(5)
In City Solar Generators	84	88	(5)		654	662	(8)	
NYPA	6	7	(1)		61	69	(8)	
ISO Exchange	150	105	45	(6)	(5,716)	(1,273)	(4,443)	(6)
Velco Exchange	0	(0)	0		0	(3)	3	
Total Energy	1,545	1,454	91		7,107	10,879	(3,771)	
Ancillary Charges	(0)	(4)	4		44	207	(163)	(7)
Miscellaneous	43	56	(13)		1,108	935	173	(8)
<b>Total Purchased Power Expense</b>	<b>1,673</b>	<b>1,721</b>	<b>(48)</b>		<b>9,169</b>	<b>14,177</b>	<b>(5,008)</b>	

**Current Month:**

- (1) Includes \$128k Mystic Cost of Service not in Budget.
- (2) Production 4% under Budget.
- (3) Production 26% under Budget.
- (4) Production 9% over Budget.
- (5) Includes REC purchases Budgeted under Miscellaneous.
- (6) Energy Prices under Budget.

**YTD:**

- (1) Includes \$1.2M for Mystic Cost of Service not in Budget.
- (2) Production 3% over Budget.
- (3) Production 12% under Budget.
- (4) Production 23% under Budget.
- (5) Includes REC purchases Budgeted under Miscellaneous.
- (6) Energy Prices under Budget. Production (McNeil (-12%) and Wind (-12%)) under budget.
- (7) Reflects loss of Forward Reserve Revenues due to GT outage.
- (8) Includes REC Adjustment Expense.

**Burlington Electric Department**  
**Operating and Maintenance Expense by Spending Category**  
**FY 2023 - April YTD**

	<b>Budget</b>	<b>Actual</b>	<b>Variance</b>	<b>% Variance</b>	<b>*</b>
Labor-Regular	7,239,250	6,705,966	533,284	7%	
Labor-Overtime	496,462	427,469	68,993	14%	a
Labor-Temporary	8,500	63,275	(54,775)	644%	b
Labor-Overhead	2,939,548	2,601,989	337,559	11%	c
Outside Svcs	2,206,262	1,851,567	354,695	16%	d
DSM	1,582,614	3,309,748	(1,727,134)	109%	e
Materials & Supplies	807,024	780,629	26,395	3%	
Insurance	621,022	621,623	(601)	0%	
A & G Clearing	(755,864)	(582,247)	(173,617)	23%	f
Other - RPS Compliance	545,870	473,785	72,085	13%	
Other	2,499,819	1,747,497	752,322	30%	g
<b>Operating and Maintenance Expense</b>	<b>18,190,507</b>	<b>18,001,301</b>	<b>189,206</b>	<b>1%</b>	

(a) Areas lower than budget include Customer Care (\$7,400), System Operations (\$84,400) and Engineering & Technicians (\$6,000); offset by areas higher than planned include Finance & Accounting, \$13,700 and McNeil Plant, \$16,200.

(a) Budget assumed intern positions in Policy & Planning, \$8,500. Actual includes temporary help in System Operations, \$60,000 and Finance & Accounting, \$3,300.

(c) See page 13.

(d) Timing of items for McNeil outage.

(e) Projects are driven almost entirely by customer decisions. The budget is based on information on specific projects or seasonal variations; otherwise the amount is spread evenly across the year. Actual includes Act 151 pilot programs and TEPF spending on the District Energy System engineering work.

(f) The credit for A&G ("Admin and General Expenses") charged to Capital projects was less than planned.

(g) Timing; areas that are less than budget including, Maintenance Contracts (\$1108,600), Education & Training (\$100,300), Transportation Clearing (\$90,700) and Utilities (\$52,500).

**Burlington Electric Department  
Budget vs Actual Spending Analysis  
FY 2023 - Apr YTD**

Labor - Overhead	(000's)				
	Budget	Actual	Variance	%	
Pension	\$1,276	\$1,412	(\$136)	-11%	(a)
Medical Insurance	1,182	1,173	9	1%	(b)
Social Security Taxes	827	753	74	9%	(a)
Workers Compensation Ins.	314	284	30	10%	(b)
Dental Insurance	68	61	7	10%	(b)
Life Insurance	16	16	(1)	-3%	(b)
	<b>\$3,683</b>	<b>\$3,699</b>	<b>(\$16)</b>	<b>0%</b>	

<b>Rates Table:</b>		<b>Budget</b>
Pension		12.49%
Social Security		7.65%

*(a) Function of labor cost. Actual includes monthly pension arbitration amortization, \$5,440.*

*Pension amount for the year provided by the City during budget development.*

*(b) Budget provided by the City during budget development.*

**Net Income**  
**FY 2023 - April (\$000)**

		Current Month				Year - To - Date		
	Ref	Budget	Actual	Variance		Budget	Actual	Variance
Operating Revenues								
Sales to Customers	p.3	3,689	3,752	63		43,371	42,729	(642)
Other Revenues		271	438	167	(a)	2,940	4,497	1,557 (a)
Power Supply Revenues	p.6	0	975	975		6,214	6,827	613
Total Operating Revenues		<u>3,959</u>	<u>5,165</u>	<u>1,205</u>		<u>52,526</u>	<u>54,054</u>	<u>1,528</u>
Operating Expenses								
Fuel	p.6	179	16	163		8,328	7,708	620
Purchased Power	p.6	1,673	1,721	(48)		9,169	14,177	(5,008)
Transmission	p.6	804	773	31		8,148	7,722	426
Operating and Maintenance	p.12	2,088	1,350	739		18,191	18,003	188
Depreciation & Amortization		533	516	17		5,326	5,157	168
Revenue Taxes		39	46	(7)		493	494	(2)
Property Taxes Winooski One		43	40	3		433	404	28
Payment In Lieu of Taxes		196	177	19	(b)	1,963	1,794	169 (b)
Total Operating Expenses		<u>5,556</u>	<u>4,640</u>	<u>916</u>		<u>52,050</u>	<u>55,460</u>	<u>(3,410)</u>
Other Income and Deductions								
Interest/Investment Income		5	58	53		50	409	359
Dividends		367	370	3		3,657	3,666	8
Customer Contributions/Grant Proceeds		80	207	127	(c)	639	658	19 (c)
Gain/(Loss) on Disp of Plant		0	(43)	(43)	(d)	(282)	(56)	226 (d)
Other		11	3	(8)	(e)	52	(77)	(129) (e)
Total Other Income & Deductions		<u>462</u>	<u>595</u>	<u>133</u>		<u>4,116</u>	<u>4,600</u>	<u>484</u>
Interest Expense		242	252	(10)	(f)	2,630	2,963	(333) (g)
Net Income		<u>(1,376)</u>	<u>868</u>	<u>2,244</u>		<u>1,962</u>	<u>231</u>	<u>(1,731)</u>

**Current Month:**

- (a) Energy Efficiency Program cost reimbursement was higher than planned, \$172,500.  
(b) Actual Payment in Lieu of Tax (PILOT) is less than budget assumption.  
(c) Budget assumed customer contributions for Champlain Pkwy, \$57,400 and other overhead/underground billable, \$22,800. Actual includes billable for Champlain Parkway, \$96,300 and University Place decorative lighting \$73,300. Also includes grant proceeds \$36,900.  
(d) Timing; retirements budgeted in August, December & February.  
(e) Includes unrealized gain on investment \$10,200 and timing of jobbing unfavorable \$14,700.  
(f) Revenue Bond 2022 actual interest higher than projected.

**Year - To - Date:**

- (a) Energy Efficiency Program cost reimbursement was higher than planned, \$1,547,000.  
(b) See current month.  
(c) Budget assumed customer contributions for Champlain Pkwy, \$459,000 and other overhead/underground billable, \$175,200. Actual includes prior year billable for UVM LCOM \$237,400, Champlain Pkwy \$138,700, University Place decorative lighting \$159,700, other overhead/underground projects and grant proceeds.  
(d) Timing; retirements budgeted in August, December & February.  
(e) Timing of jobbing unfavorable, \$143,500.  
(g) Revenue Bond 2022 actual interest higher than projected.

**Burlington Electric Department  
Capital Projects - FY23**

	<b>\$000</b>			
	<b>Full Year Budget</b>	<b>Budget</b>	<b>April YTD Actual</b>	<b>Variance</b>
<b>McNeil (BED 50% Share)</b>				
ESP Mechanical Field Rebuild (312)	245		274	(274)
Boiler Grate Overhaul West	200	200	338	(138)
Routine Station Improvements	167	134	85	49
Continuous Emissions Monitoring Repl/Upgrade	146	146	14	132
Replacement Rail Cars	75	75		75
Switchyard 3321 Breaker Replacement	70	70		70
Turbine Control System Upgrade/Insurance (314)	49	49	30	19
A-Belt Belt Replacement (312)	30	30		30
Augers Replaced (312)	30	30		30
Demi/Service Water Pump	15	15		15
Safety Valve Replacements (312)	13	8		8
Shelving Footings	13	13	11	2
Station Tools & Tool Boxes	8	8	4	3
Rigging Equipment (316)	5	5		5
Other	11	6	11	(5) (a)
<b>Total McNeil Plant</b>	<b>1,076</b>	<b>787</b>	<b>766</b>	<b>21</b>

(a) Budget includes energy efficiency improvements, equipment cameras, perimeter fence upgrade, portable radios upgrade and furniture replacement. Actual includes west grate emergency repairs, \$3,100, furniture replacement, \$1,100, backup boiler feed bpump, \$2,700 & perimeter fence upgrade, \$1,900.

<b>Hydro Production</b>	<u>224</u>	<u>220</u>	<u>46</u>	<u>174</u> (a)
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(a) Timing of various projects including Control Room Fire Suppression, \$70,000, Turbine Painting, \$15,000 & Rake Hydraulic Pump replacement, \$40,000 deferred to future year.

<b>Gas Turbine</b>	<u>338</u>	<u>111</u>	<u>700</u>	<u>(590)</u> (a)
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(a) Turbine repair higher than planned. Various items delayed to future year include roof, \$85,000, outlet bucket replacement, \$50,000 and painting outside, \$9,000.

<b>Other</b>				
Direct Current Fast Charger (new locations)	162	145	113	32
EV Charger Installation (Level 2)	39	35		35
Distributed Energy Resources	37	33		33
Policy & Planning Research & Dev	29	26	5	21
<b>Total Other</b>	<b>267</b>	<b>240</b>	<b>119</b>	<b>121</b>

<b>Transmission Plant</b>				
VT Transco Investment	632	632	634	(2)
<b>Total Transmission Plant</b>	<b>632</b>	<b>632</b>	<b>634</b>	<b>(2)</b>

**Burlington Electric Department  
Capital Projects - FY23**

	<b>\$000</b>			
	<b>Full Year Budget</b>	<b>Budget</b>	<b>April YTD Actual</b>	<b>Variance</b>
<b>Distribution Plant-General</b>				
<b>Aerial</b>				
Heineberg Rd Reconductor	186	186	129	56
Pole Inspection & Replacement	118	100	73	27
Ethan Allen Pkwy - Conv to 2ph P2942-2959	73	73	58	15
Replace Recloser 252R			39	(39)
Total Aerial	376	359	299	60
<b>Underground</b>				
Lyman Avenue Rebuild	669	602	646	(44)
2L5 Cable Replacement Pt3	573	573	701	(128)
Sunset Cliff Rebuild	455	386	76	311
1L2/2L5 Cable Replacement Pt1	294	294	367	(73)
2L5/2L2 Cable Replacement Pt2	223	223	157	66
Replace 322/323/324S (Main St and Univ Hts)	138	131	1	130 (a)
Appletree Point Rebuild (Electrical Work)	107	107	55	52
Edgemoor Drive Rebuild - Phase 3	92	92	88	4
Replace 724S/725S (Milot - College St)	71	71	46	24
Replace 910S/911S (Votey)	59	59	17	42
Replace Switch (303,307,308)			106	(106)
Replace Switch (756,757,758,730-Battery/Pearl)			164	(164)
Total Underground	2,680	2,538	2,426	113
(a) Moved to FY24.				
<b>Customer Driven/City Projects</b>				
Champlain Parkway	736	588	139	450
Champlain Parkway (CAFC)	(574)	(459)	(139)	(320)
UVM Athletic Facility	18	18	117	(99)
Shelburne St Roundabout Relocation			9	(9)
University Place Decorative Lighting			230	(230)
University Place Decorative Lighting (CAFC)			(160)	160
UVM LCOM Building			28	(28)
UVM LCOM Building (CAFC)			(237)	237 (a)
Main Street Great Streets			8	(8)
Total Underground	180	148	(4)	152

(a) Timing; prior year billable.

**Burlington Electric Department  
Capital Projects - FY23**

	<b>\$000</b>			
	<b>Full Year Budget</b>	<b>Budget</b>	<b>April YTD Actual</b>	<b>Variance</b>
<b>Other</b>				
Distribution Transformers	230	230	93	136
SCADA Field Device Upgrades	182	182	(5)	187 (a)
SCADA Network Switches Replacement	42	42	10	32
Communication Equipment Emergency Repair	29	29	4	25
SCADA Backup Server UPS Replacement	20	20		20
Metering CF-33 Toughbook	10	10		10
Other	0		17	(17)
Total Other	512	512	120	392
 Total Distribution Plant-General	 3,748	 3,556	 2,839	 717
 (a) Project cancelled this FY.				
<b>Distribution Plant - Blanket</b>				
Lighting	251	201	94	107
Lighting (Rebate)	(6)	(5)		(5)
Underground	347	265	313	(48)
Underground (CAFC)	(152)	(122)	(118)	(4)
Aerial	170	131	104	27
Aerial (CAFC)	(67)	(54)	(25)	(28)
Meters	92	87	45	42
Tools & Equipment - Distribution/Technicians	35	28	11	17
Replace Corroded Vista CT's/PT's	22	21	11	10
Substation Maintenance	16	16	7	9
Gas Detectors	4	4		4
Total Distribution Plant - Blanket	711	574	442	131
 Total Distribution Plant	 4,460	 4,130	 3,282	 848

**Burlington Electric Department  
Capital Projects - FY23**

	<b>\$000</b>				
	<b>Full Year Budget</b>	<b>Budget</b>	<b>April YTD Actual</b>	<b>Variance</b>	
<b>General Plant</b>					
Computer Equipment/Software	1,902	1,643	790	853	(a)
Vehicle Replacement	94	94	143	(49)	
Buildings & Grounds	120	120	70	50	(b)
Other	11	11	10	2	(c)
Total General Plant	2,127	1,868	1,012	855	
 (a) Budget includes IT Forward, \$1,176,200 and various other projects (desktop/laptop replacements, OpenWay upgrade, Pole Mount Routers and Virtualized Hardware Refresh). Actual includes IT Forward, \$600,900, Pole Mount Routers, \$120,300 and Desktop/Laptop replacements, \$45,700.					
(b) Timing of various projects including Scada room seal, Fence for solar Array and Extend Pole Pile.					
(c) Budget includes training yard material and AED Purchase. Actual is new Pitney Bowes postage machine and AED's.					
<b>Sub-Total Plant</b>	<u>\$9,123</u>	<u>\$7,988</u>	<u>\$6,560</u>	<u>\$1,428</u>	
Add: CAFC* reclass to "Other Income"	798	639	679	(40)	
<b>Total Plant</b>	<u><u>\$9,921</u></u>	<u><u>\$8,627</u></u>	<u><u>\$7,239</u></u>	<u><u>\$1,388</u></u>	

\* Customer Advances (Contributions) for Construction.

## Operating Cash - FY 2023 Monthly Ending Balance

