

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

SCOTT MOODY, CHAIR  
BETHANY WHITAKER, VICE CHAIR  
BETH ANDERSON  
LARA BONN  
JIM CHAGNON

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

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

Conference ID: 564 191 443#

**AGENDA**  
**Regular Meeting of the Board of Electric Commissioners**  
**Wednesday, December 13, 2023 – 5:30 p.m.**

- |  |                |
|--|----------------|
| 1. Agenda  | 5:30 (5 min.)  |
| 2. Minutes of the November 8, 2023 Meeting   | 5:35 (5 min)   |
| 3. Public Forum  | 5:40 (5 min.)  |
| 4. Commissioners' Corner (Discussion)  | 5:45 (5 min.)  |
| 5. GM Update (Oral Update)   | 5:50 (10 min.) |
| 6. Financials: October FY24 (Discussion): (E. Stebbins-Wheelock)                                 | 6:00 (10 min.) |
| 7. Energy Assistance Program Permanent Rate Approval (Discussion & Vote): (E. Stebbins-Wheelock) | 6:10 (10 min.) |
| 8. McNeil 2024 Calendar Budget (Discussion & Vote): (R. Dollar)                                  | 6:20 (10 min.) |
| 9. SCADA/ADMS (Discussion & Vote): (M. Kasti/E. Stebbins-Wheelock)                               | 6:30 (10 min.) |
| 10. Commissioners' Check-In  | 6:40 (5 min.)  |

Attest:

  
\_\_\_\_\_  
Laurie Lemieux, 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: 564 191 443#

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

TABLE OF CONTENTS  
(for 12/13/2023 meeting)

**\*\*\* FYI \*\*\***

- Minutes of the November 8, 2023 Meeting
- November Monthly Report
- Dashboard
- October Financial Report
- McNeil 2024 Calendar Budget
- SCADA/ADMS

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



To: Burlington Board of Electric Commissioners  
From: Darren Springer, General Manager  
Date: December 8, 2023  
Subject: **November 2023 Highlights of Department Activities**

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### **General Manager**

- **Act 44 Incentives** – BED is going to fund existing incentives through our Tier 3 program fully while PUC hopefully enacts an order on Act 44 funding by mid-January. For customers, no disruption, and we'll not be making any Jan. 1 changes to our incentive programs in 2024. Instead, we'll evaluate the PUC order when it comes, and look to make changes more towards Spring 2024.
- **Renewable Energy Standard** – BED remains engaged in discussions around the Renewable Energy Standard. The legislative work group's last meeting is Dec. 13<sup>th</sup>, and I can report out more at the Commission meeting.
- **District Energy** – BED is already working on items from the District Energy resolution and is prioritizing the wood chip dryer/efficiency RFI.
- **Carbon Fee Ordinance** – BED working with DPI on implementation for Jan. 1, 2024.
- **Charter Change for Line of Credit** – Was approved unanimously at BOF, will be on CC agenda 12/11.

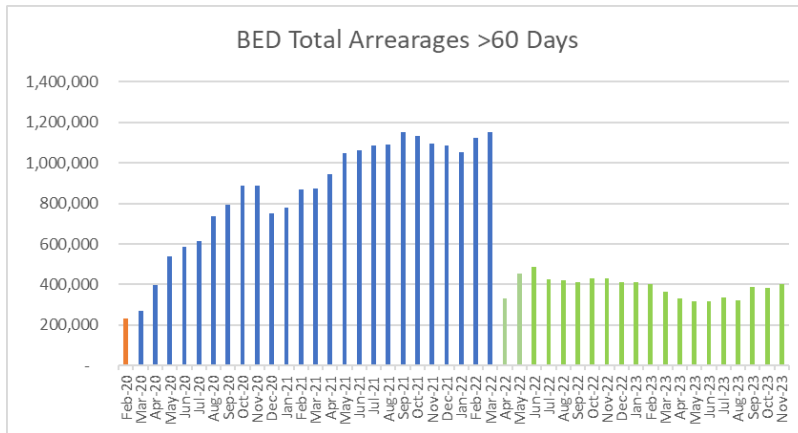
### **Center for Innovation - Emily Stebbins-Wheelock**

- With COO/Manager of Utility Services & Engineering, leading ADMS vendor negotiations.
- Coordinating efforts to track and respond to federal and state funding opportunities.
- Sponsoring effort to increase Energy Assistance Program enrollment.
- Overseeing 2022 and 2023 rate case implementation and investigation.
- Continued sponsorship of IT Forward implementations.

### **Finance & Billing**

- Completed work with external auditors on the statewide EEU audit.
- Continued work on updating cost allocations for miscellaneous service fees.
- Updating debt ratio projections to assess impact of potential future revenue bonds.
- Discussions with VELCO and fellow owners regarding projected VELCO capital spending, debt issuances, and equity calls.
- Prepared draft City Council request to change City charter to increase line of credit to \$10 million, in conjunction with bond counsel, PFM, and City.

- With Purchasing/Facilities, reviewing opportunities for additional fleet electrification grants.
- Participating in MDMS Phase 2 implementation to support EV charging integration and implement grid analytics modules.
- Pursuing FEMA reimbursement grant for July flooding damage at Winooski One; finalized grant agreement for FEMA reimbursement of December 2022 winter storm damage.
- Monitoring receivables in response to COVID19: as of November 30, 2023, BED's total non-current receivables had decreased \$86,639 or 11.5% compared to the end of October 2023. Arrearages >60 days were \$401,013.



### Information Services

- Ongoing involvement in the SCADA/ADMS selection process with the Engineering team.
- MDMS Phase 2 work is underway.
- PMO team has taken on coordination of work on new dispatch room; working with several contractors to finalize construction/electrical/data work. Operator desk moved from GT and assembled. Looking to finalize all major construction by March 2024.
- BED has selected a vendor, Mauell, for the new SCADA video wall and has held a kickoff meeting. Video wall installation targeted for end of March 2024
- CIS project team participated in 7 pre-RFP vendor demos. Vendor demos are now complete. Work on developing CIS requirements is in final stages and project team is reviewing draft RFP. RFP release is anticipated for the week of 12/11.
- Ongoing phishing and security testing of our users.
- Submitted a grant application to U.S. DOE seeking funds for cybersecurity initiatives.
- Completed overhaul of AMI network architecture to improve security, resilience, manageability.

### Policy & Planning

- Cybersecurity and business model work for Building GIANTS DOE GRIP award negotiation.
- Filed rebuttal testimony in 2023 rate case.
- Completed Packetized Mello device removal.
- Reviewed ADMS vendor contracts.
- REC markets review re: McNeil.

- Joint telematics (data from onboard EV systems) issued by EVT on behalf of multiple VT DUs.
- Work on miscellaneous fees and EV charging installation proposals.
- Filed for participation in the ISO-NE Inventoried Energy Program.
- Discussion with CEDO and DPW about potential solar developments.
- Finalized VPPSA Strategic Membership agreement.
- DES term sheets approved by City Council.
- Drafted RFI for efficiency improvements at McNeil.
- Filed IRP; schedule issued by PUC.
- Comments/filings in multiple PUC proceedings.
- Filed DRP version B with Act44 and TEPF proposals.
- Winooski One FERC relicensing site visit scheduled for Jan 29, 2024.
- Solar Research and Training Center at McNeil completed with fencing installation in November.
- Discussions with UVM team on future/expanded uses of Solar Research & Training Center.
- Contract extension discussions with energy suppliers.
- Filed 2024 Tier 3 Plan.

### **Sustainability & Workforce Development**

- Equity and Project Analyst continued outreach to stakeholder groups and community members, including King Street Laundry, the Bobbin Mill, and the Family Room.
- Attended annual APPA Customer Connections conference, meeting with utility colleagues from around the country engaged with equity and community outreach.
- Worked with Communications Team and other BED staff members on the selection of the Net Zero Calendar Contest winner.
- Hosted November Lunch and Learn featuring Jared Duval/Executive Director and Cara Robeck/Deputy Director and Network Manager of Energy Action Network.
- Provided comments and input on Phase 1 of the Burlington Transportation Demand Management Plan, conducted by Nelson Nygaard, and managed by City Comprehensive Planner.
- Facilitated creation of several informational videos about McNeil intended for BED customers on the role of District Heat and McNeil in meeting NZE goals. Attended Nov 20 City Council meeting and provided public forum comments on the benefits of McNeil and District Heating in fossil fuel reduction.
- Tabled at Champlain College's Sustainability Fair. Shared information on district heating, NZE by 2030 goals, rebates and incentives, and overall efforts to reduce fossil fuel use.
- Orchestrated BED's application to VTrans for funding to offset the purchase of two Ford F150 Lightning pick-ups.
- Assisted with DOE GRIP Building GIANTS award materials, including outreach to VT Works for Women and Resource and other community partners.
- Participated in monthly Burlington 2030 District executive committee meeting and set agenda for November's 2030 District Steering Committee meeting.
- Worked with Communications & Technology Specialist, Adam Rabin, to record and edit new NZE podcast episodes, including with Josh Costa, founder of Sleepwell Mattress Recycling, and Will Clavelle, Assistant Director of Business Development, City of Burlington.

- Met with non-profit partner ReSource, CEDO staff, and McNeil colleagues on heavy equipment training as a means to diversify and broaden the hiring pool for McNeil Generating Plant and the City of Burlington.
- Hosted November Womxn in Energy Happy Hour with colleagues from Green Mountain Power, Renewable Energy Vermont, and Encore Energy including over 30 women and gender non-conforming individuals working in the energy and renewable energy fields in Burlington and Vermont; hosted 2 BHS AP Natural Resources classes to BED for a conversation on the NZE Roadmap and the City's efforts to achieve NZE by 2030.

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

#### **Safety**

- Conducted Generation Safety Committee meeting.
- Participated in FM Global Insurance review.
- Conducted monthly inspection of fire extinguisher inspections for Pine Street.
- Conducted substation inspections.
- Participated in Lineworker Apprentice Interviews.
- Conducted weekly field safety inspections.
- Completed weekly OSHA 300 reporting.

#### **Environmental**

- Conducted monthly wastewater sampling and reporting.
- Completed the physical installation of the new CEMs.
- Began the commissioning of the new CEMs with in-house and consulted personnel.

#### **Risk Management**

- New Claims Investigations (2 total: 1 Property, 1 Auto).
- Assist and attend meetings on 2 EV Grant applications.
  - Electrify your fleet.
  - VT diesel emission Reduction Financial Assistance
- Attend L&L (Emergency Action Network) .
- Finalize 2023 Property/B&M Insurance renewal with brokers and carriers.
- Complete NPCC audit survey
- Respond to NERC section 800 data request.

#### **Purchasing/General Services**

- Extensive work continues on the new Dispatch center re-location.
- Capital work finished on red warehouse secondary egress door.
- GT grates: They have been fabricated and plan is to install these in December.
- Work on installation of radar detection devices and alarm system to prevent copper theft moving along nicely, with a target date also in December.
- All electric vehicle parking signs have arrived and will be installed in December.

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

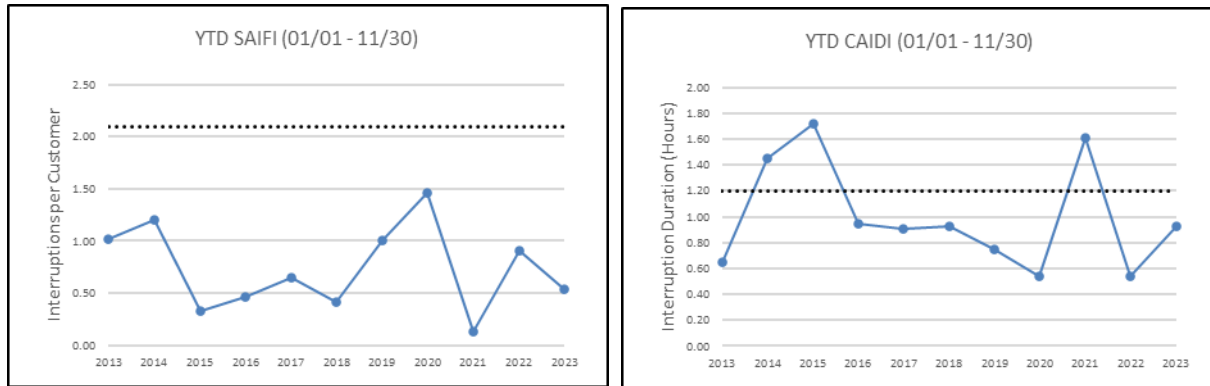
### **Engineering, Grid Services & Operations**

- Completed work to add two additional phases to the New North End neighborhoods at the end of Ethan Allen Parkway.
- Installed a new service for an ice rink at the Mater Christi School.
- Assisted the City Water Department with their annual outage.
- Energized the new COTS building on Main Street using a new pad mount transformer and feed.
- Replaced pole #2296 on Flynn Avenue next to the railroad. The previous pole was too tall for bucket trucks to reach. This work involved renting a bucket truck, obtaining permits for assistance from railroad flaggers, and scheduling a power outage.
- Started replacing older underground cable on Battery Street between College Street and Pearl Street.
- Completed 21 disconnect/reconnect services.
- Met with NorthShore Condominium Association to discuss the possibility of installing nine new EV chargers.
- Two lineworker apprentice positions were filled with the new team members starting on December 11, 2023.
- Started a street light design for Deforest Road.
- Completed the design for a new service at the GMTA Bus Depot for EV Bus Charging.
- Completed an estimate for a service upgrade at GMTA Bus Garage for temporary EV Bus Charging.
- Issued a design for a new overhead service at Burlington High School.
- Completed an estimate for a service upgrade at 567 St. Paul Street.
- Completed an estimate for a service upgrade at 288 Maple Street.
- BED continued to have meetings and correspondence with the vendors to capture specifics and clarifications in the supervisory control and data acquisition (SCADA) system/Outage Management System (OMS)/Distribution Management System (DMS) proposals.

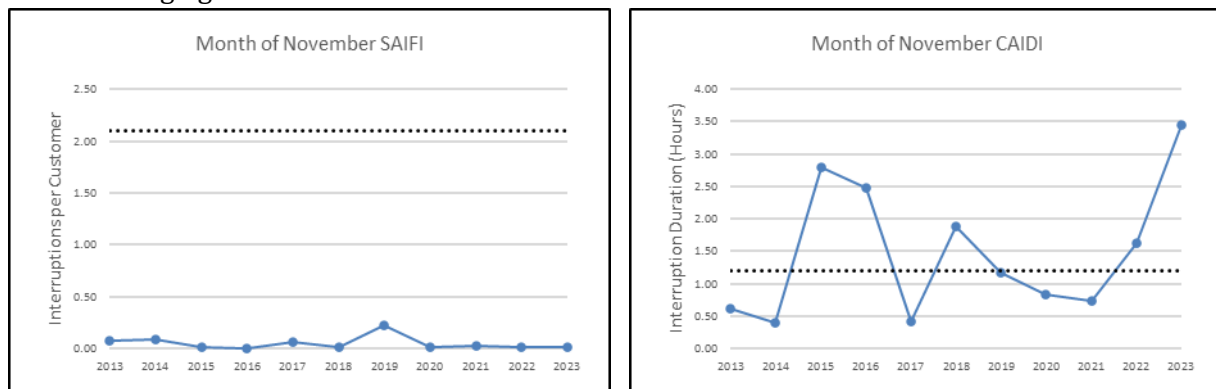
### ***SAIFI & CAIDI Outage Metrics:***

BED's distribution system experienced 11 outages in November 2023 (3 unscheduled and 8 scheduled). BED's SAIFI for the Month of November was 0.01 interruptions per customer and CAIDI was 3.45 hours per interruption. BED's YTD SAIFI is 0.54 interruptions per customer and YTD CAIDI is 0.93 hours per interruption. The high CAIDI value for this month was due to a couple of outage events. The first was a planned outage to replace a dual circuit pole along the railroad. The second was an unplanned outage due to a failed pad mount transformer.

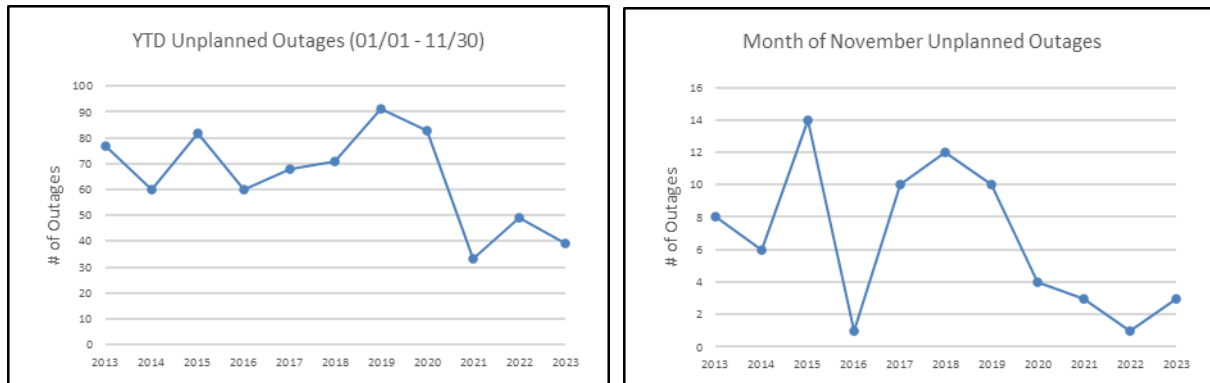
The following figure shows BED's historical YTD SAIFI and CAIDI:



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



The following figure shows BED's historical Unplanned Outages:



## Generation

### McNeil Generating Station

Month Generation:	13,786 MWh
YTD Generation:	16,6934 MWh
Month Capacity Factor:	38.29%
Month Availability:	90.58%
Hours of Operation:	281.57 hours



This month at McNeil we completed maintenance items while building our fuel supply for the winter. The projects conducted during this time included the Continuous Emissions Monitoring (CEM) installation, miscellaneous maintenance items, and preventative maintenance.

#### ***Winooski One Hydroelectric Station***

Monthly Generation:	2,525.69 MWH (89.404% of average)
YTD Generation:	32,247.21 MWH (119.213% of average)
Month Capacity Factor:	47.404%
Annual Capacity Factor:	54.36%
Month Availability:	99%

This month at Winooski One routine maintenance, preventative maintenance, and a few process improvement projects were conducted. Flood recovery projects were also performed, including dam repair patch, roofing membrane replacement, fencing replacement, clearing debris in front of the intake racks, and flash boarding replacement. Fishing season concluded with record salmon transportation numbers for the facility.

#### ***Burlington Gas Turbine***

Month Generation:	96.38 MWh
YTD Generation:	414.2 MWh
Month Capacity Factor:	0.582%
Month Availability:	95%
Hours of Operation Unit A:	6.5 hours
Hours of Operation Unit B:	6.5 hours

This month we initiated the biodiesel conversion of the Gas Turbine fuel source, conducted a borescope inspection, and other miscellaneous maintenance items. The biofuel conversion is proving successful so far and we plan to continue the use of B20 fuel.

#### ***Solar (Pine Street 107 kW)***

Month Generation:	4 MWh (-12% from previous year)
YTD Generation:	103 MWh
Month Capacity Factor:	5.1 %
Month Availability:	100%

#### ***Solar (Airport 499 kW)***

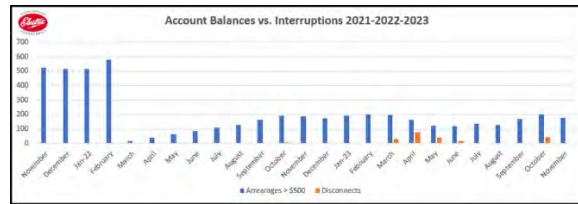
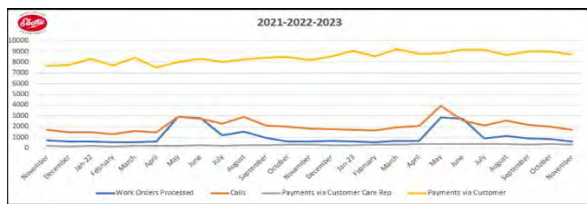
Month Generation:	20 MWh (-4% from previous year)
YTD Generation:	540 MWh
Month Capacity Factor:	5.6 %
Month Availability:	100%

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

### Customer Care

- **Call Answer Time (75% in 20 seconds):** November 2023 88.0%, October 84.8%, September 76.2%, August 77.0%, July 77.3%, June 79.5%. November 2022 83.5%, October 85.7%, September 2022 81.4%, August 69.5%, July 79.5%, June 77.5%.

**November 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.*



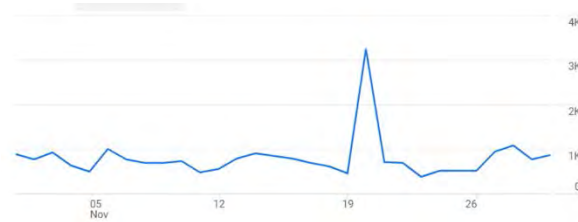
### Communications and Marketing

- **Annual Net Zero Energy Calendar Contest:** Mike Kanarick, along with Vermont Energy Education Project (VEEP) Executive Director Sophia Donforth, visited the 4<sup>th</sup> graders in all six Burlington public elementary schools in October, engaging in a presentation and conversation about energy. We invited the students to submit artwork that represents their visions of Net Zero Energy, energy efficiency, renewable energy, and sustainability. We judged the wonderful and creative student artwork and selected 14 winners for the 2024 calendar. Our awesome in-person celebration was held at BED on November 30 for the winners, their families, teachers, and principals, complete with pizza, cake, certificates, and goodie bags, along with appearances by the Mayor and Lake Monsters' mascot CHAMP.
- **Customer Bill Messages:** our December on-bill message includes information about the 2024 Energy Efficiency Charge (EEC) rate that takes effect on February 1, 2024 and helps fund BED's energy efficiency programs, and our December bill insert includes information about our proposed Integrated Resource Plan (IPR), filed with the Public Utility Commission (PUC) every three years that: details how BED plans to provide energy services safely, reliably, and at the lowest costs; analyzes BED's energy needs and supply resources, electrical system improvements, environmental impacts, and the costs associated with the plan; and provides

customers who wish to intervene and/or request a public hearing the opportunity to make a filing in the case until January 30, 2024.

- Highlight: for a sixth year, BED and VGS have partnered with Burlington’s New Year’s Eve event, Highlight. This year, we are working on partnering with the Boys & Girls Club of Burlington and the King Street Center to help make it possible for Burlingtonians who otherwise may not have the ability to attend Highlight to enjoy the amazing activities as we ring in the New Year.
- BED in the News:
  - BED’s licensed professional foresters Betsy Lesnikoski, Seth Clifford, Don Tobi, and Kevin Fink published [this helpful commentary](#) in VTDigger last month in support of the McNeil Generating Station of a Burlington District Energy System.
  - General Manager Darren Springer sat down with veteran WPTZ reporter Stewart Ledbetter to talk renewable energy. You can view the extended interview [here](#).
- Net Zero Energy Podcast: we invite you to take a listen at [burlingtonelectric.com/podcast](http://burlingtonelectric.com/podcast).
- North Avenue News: our December column highlights the wonderful NZE Calendar Contest winners and celebration at BED. We did not post an ad in this issue.
- Website and Facebook Highlights
  - Overall site-wide pageviews for November 2023 = 23,720
    - October = 23,493
    - September = 39,590
    - August = 74,791
    - July = 51,931
    - June = 36,499
    - May = 46,750
    - April = 40,507
    - March = 41,409
    - February = 31,290
    - January = 40,165
    - December = 20,272
    - November = 21,290
    - October = 21,797
  - Unique homepage pageviews for November 2023 = 4,846
    - October = 5,206
    - September = 19,583
    - August = 56,889
    - July = 32,716
    - June = 20,495
    - May = 27,691
    - April = 23,286
    - March = 28,317
    - February = 15,040
    - January = 21,866
    - December = 8,207

- November = 7,371
- October = 6,762
- Full site visits for November 2023



### Visitors by website page

page title	Nov 2023	Oct 2023	Sep 2023	Aug 2023	Jul 2023	June 2023	May 2023	Apr 2023	Mar 2023	Feb 2023	Jan 2023	Dec 2022	Nov 2022	Oct 2022
Burlington Electric Department	7431	8029	19583	56889	36108	21676	29074	24511	29277	19854	26553	8207	7134	7739
How To Pay My Bill	2363	2457	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
My Bill	n/a	n/a	3034	4535	4648	2747	2811	2541	2657	2510	2735	2445	2520	2862
Waste Wood Yard	1484	1137	970	1040	1196	1199	1634	2010	330	259	593	590	1234	1332
Report A Problem	97	159	445	295	309	251	104	344	91	74	82	871	167	120
Stop or Start Service	273	372	400	713	616	908	2256	603	269	230	289	273	294	348
E-billing	228	367	276	401	349	337	254	207	240	240	280	234	241	319
Contact Us	531	648	908	944	740	762	1192	746	485	514	474	473	507	510
McNeil Generating Station	990	761	876	559	597	543	572	906	384	334	396	393	614	699
Heat Pumps	285	318	366	413	446	501	491	515	446	421	519	408	883	508
Rebates	564	636	674	715	714	694	776	831	645	562	860	554	584	588
Rebate Center	589	569	728	713	600	715	833	769	652	595	732	524	617	609
Rebates for 2023	14	22	12	30	38	44	59	73	71	219	333	n/a	n/a	n/a
Stop or Start Service	273	372	400	713	616	908	2256	603	269	230	289	273	294	348
Leadership Team	191	224	236	251	201	198	210	244	204	191	249	178	202	216
Rates & Fees	232	210	239	213	207	198	295	239	216	169	209	201	226	226
RFP	522	442	407	626	331	329	329	354	331	316	498	413	374	516
Residential   Ways to Save	138	145	216	157	127	169	181	173	132	123	125	134	125	133
Electric Vehicles	288	388	392	430	309	323	355	454	414	431	492	331	356	295
E-Bikes	89	112	167	235	234	199	141	205	172	114	118	76	107	151
Net Zero Energy Podcast	30	96	55	43	38	40	43	74	171	37	44	69	67	40
Net Zero Energy News	5	34	16	12	9	40	12	28	38	23	33	40	48	40
Electric Vehicles	288	388	392	430	309	323	355	454	414	431	492	331	356	295
Our Energy Portfolio	100	52	100	55	78	99	82	94	108	85	70	49	65	74
Lawn Care	60	65	65	126	136	145	274	205	103	79	120	67	71	123
RFP Detail	1602	440	478	1464	148	74	192	190	84	274	622	195	241	533
Defeat The Peak	3	16	151	31	226	172	16	n/a	7	3	13	8	9	12
Commercial   Ways to Save	31	20	30	36	39	48	40	47	43	28	34	46	49	38

\*The “My Bill” page was renamed “How To Pay My Bill” in October.

- Top-performing November Facebook posts

### Article about McNeil and Forestry

In Vermont, tree growth exceeds removals by a ...

Burlington Electric Department

Boost post

Post

Thu Nov 9, 1:58pm

1.2K Reach

### Podcast with Bill Calfee

New podcast episode! Burlingtonian Bill Calfee ...

Burlington Electric Department

Boost post

Post

Tue Nov 7, 8:19am

328 Reach

## Energy Services

### *UVM*

- UVM / Dormitory Lighting Fixture Upgrades to LED – BED is working with the zone manager associated with many of the UVM dormitories, including the Trinity campus, to improve common-area lighting through LED fixture upgrades. This month BED received a report from UVM summarizing the buildings where light upgrades are in progress and the fixture counts involved. The number of fixtures in a transition to LED technology is now over 1,300.
- UVM recently informed BED and VGS that it recently hired a project engineer who will focus on efficiency projects in collaboration with both utilities.

### *UVMMC*

- UVMMC Energy Engineering Funding – Discussions with the local hospital have been initiated again concerning partial BED funding of a project manager at UVMMC that will focus on energy efficiency projects. Major responsibilities of this person will be to identify and track projects that have energy efficiency components, coordinate information with BED to help quantify savings and facilitate the process of completing the final rebate transactions. Present technical staffing levels make it difficult to follow a smooth process flow that will allow BED to claim energy savings and allow incentives to be paid to the customer.

### *Other Services*

- King St. Youth Center / Demand and Energy Reductions – BED was contacted by the building facility manager concerning reliability issues with their battery storage system. An inverter failure and high cost of repair has left this storage resource inoperative. BED is unable to financially assist in the repair of the unit. However, to help reduce electricity costs, we are in the process of scheduling an on-site meeting to investigate the programming of the building's DDC system, to ensure that it is operating the building's HVAC system in an optimum manner.
- Burlington School District (BSD)/ Integrated Arts Academy (Wheeler) Major Renovation – A few months ago, BED received the 95% design drawings for this major HVAC and envelope renovation. It is envisioned that this will be a geothermally heated and dehumidified school (no formal cooling system). Dialog is continuing this month with the BSD as the project budget is being developed and there is interest in quantifying the potential BED incentive package for this work.
- YMCA – 298 College St. / HVAC Re-commissioning – BED and VGS have been focusing on assisting the owner in addressing several HVAC issues which are causing unnecessarily high natural gas usage. This involves the boiler plant and heat recovery systems. The boiler plant is experiencing low-delta T in the heat supply loop, short-cycling of the equipment and the need to run unnecessarily high boiler temperatures which is preventing the units from ever running in the more efficient boiler condensing mode. We are working to engage the owner to move forward with some energy-saving control sequences and hardware changes.
- 100 Bank St. Office Building / HVAC Improvements – BED has been discussing upcoming HVAC changes with the owner's project manager. The cooling tower is to be replaced as well as a possible upgrades to the building's DDC system so that its control can be expanded to the boiler

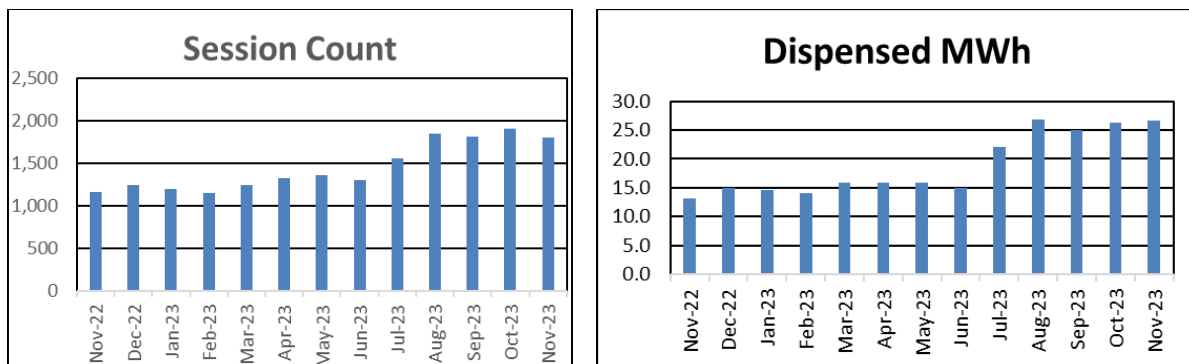
plant. Progress with office building upgrades in Burlington is difficult as the vacancy rates are presently high and available capital to fund improvements is difficult to find.

- 266 College St. / NC Multifamily (Old YMCA) – This month BED began a dialog with the design engineer for the project which is in the early design stage. This is considered to be a historical building by the city. However, only a portion of the south-facing structure will remain. The rest of the building will be demolished and re-built. More project details will be available to BED shortly.
- 77 Pine St. Bank Building / Multifamily NC – BED is continuing to work on the finalization of the energy savings for this 49-unit building. This involves the calibration of the energy model with building usage. At BED's suggestion, the owner intends to expand the DDC system to cover additional pieces of HVAC equipment. A proposal from the controls contractor has been delivered to the owner. BED is waiting for further action on the proposal and for colder weather to see how the winter heat pump usage compares to the energy model predictions.
- Champlain College / McDonald Hall – Major renovation of existing forty-five bed dormitory. This is an excellent prototype for applying state of the art system technology to a 19<sup>th</sup> century building. The three major drivers of energy performance are all in play. A GSHP primary heat source, highly effective energy recovery ventilation, and detailed air sealing. Initial results indicate truly exceptional energy performance.
- 251-253 So Willard St. apartments – This is a small 5-unit apartment building that will be all electric utilizing a new to market integrated single zone air source heat pump and ERV. A highly detailed energy model has been provided. This is the same equipment being considered for the City Place Apartments. The model component is a collection of objects for vetting and development when analyzing similar projects.
- UVMMC / Miller Building In-Patient Addition NC – This 128-bed facility was completed and occupied in mid-2019. This is an energy modeling NC project and we are now in the process of completing the final energy modeling calibration. The building was designed with many energy efficiency features, identified via an intensive use of energy modeling. The finalizing of this project as a DSM measure was delayed largely due to the Covid lock-down and to UVMMC staffing issues that occurred afterwards. The plan is to have the project finalized by the end of the calendar year.
- Rheem Heat Pump Hot Water Heater Q&A- The Energy Services team met with Rheem water heating representatives to discuss their heat pump water heater offerings. This training was in relation to the dependence on heat pump water heaters for Net Zero and a new 'Switch & Save' grant program for low-income customers. The meeting was extremely helpful in understanding the function and installation of the HPWH.
- Burlington Housing Authority – Franklin Square Apartments - Site visit to meet Rheem factory representative and assess applicability and physical constraints of replacing electric resistance hot water heaters with HPWHs. The installation was deemed feasible and likely cost effective. Awaiting response from owner on interest in pursuing.
- Winkeldom LLC - Met with owner regarding a whole building renovation at this location. The owner's intent is for a LEED compliant renovation. Contacted by Avonda Air Systems regarding potential incentives. An assessment of current status of equipment will be carried out. Based on age and condition a scope of work for replacement will be developed.

- Simple Roots- Circled back with owner regarding a previous high bill complaint for his brewery & tap room. Demand (kW) has been down slightly since our last visit by adjusting his process. Will continue to assist as needed.
- Timber Lane Pediatrics - High bill complaint from small pediatric facility at Ethan Allen Shopping Plaza. Walk-thru with the facilities manager found a 7–10-ton RTU system operating with little thermostatic telemetry. For a 1,700 sq. ft. facility with eleven exam rooms there was only one thermostat control in the corridor. Next step is to meet with their HVAC contractor and discuss cost effective solutions and potential incentives.

### Electric Vehicles

- The EVSE dispensed a total of 26.6 MWh and supported 1,802 sessions.
- The top 3 sales were 101, 102, and 108 kWh and occurred at the Cherry St. Garage.
- The top 10 sessions (0.5% of total) accounted for 3.3% (890kWh) of the total monthly sale. The ten sessions ranged from 76kWh-108kWh.
- The EVSE served 824 unique drivers.
- The Pine St. DCFC installation is complete.
- Approximately 24% of the energy sold (6.5MWh) is attributed to the Pine St. DCFC. Approximately 31% (8.5MWh) from the 4 stations (8 ports) located in the Cherry St. and College St Garages. The Oakledge station is seeing the least activity. It dispensed a total of 273kWh, down from 1,000kWh in Aug.
- The Marketplace Garage DCFC installation is still on hold.
- Compensating Burlington Parks, Recreation and Waterfront f(PR&W) or the energy dispensed from the Oakledge Park station was determined to be in conflict with our tariffs. P&P is researching options. ES has let PR&W know that we are working towards a solution.
- The replacement head for BE13 (Hannaford) was not installed because power cycling appears to have restored functionality. We now have a spare head.
- Two broken latches were replaced.
- Session Count and Dispensed Energy plots from the public charging network are shown below.



- Number of EV and PHEV rebates to date – 638 (of this 128 LMI rebates to date as shown below)
  - New All Electric Vehicle – 287
  - New All Electric Vehicle (LMI) – 61
  - New PHEV – 145

- New PHEV (LMI) – 46
  - Used All Electric Vehicle – 53
  - Used All Electric Vehicle (LMI) – 15
  - Used PHEV- 25
  - Used PHEV (LMI) – 6
  - New All Electric Vehicle (\$60K plus) – 23
  - New PHEV (\$60K plus) – 22
- Number of customer loans with lending partners to date – 5
  - Number of customers currently participating in the new EV Charging Rate- 242 (confirmed with Casey that 242 is the correct number of active participants. We under reported last month)
  - Number of E-Motorcycle rebates to date – 2

### **Electric Vehicle Charging Stations**

- Number of home EV charging stations rebates to date – 182
- Number of Multi-family EV charging stations rebates to date – 1
- Number of Multi-family Non-EVmatch-LMI charging stations rebates to date (LMI) – 3
- Number of Multi-family EVmatch Public charging stations rebates to date – 2 2
- Number of Multi-family Non-EVmatch charging stations rebates to date – 3
- Number of Multifamily EVmatch Non-Public – LMI - 1
- Number of Multifamily Non-EVmatch Non-Public – LMI – 6
- Number of Level 2 Workplace charging stations rebates to date – 14

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

- Number of e-mower rebates to date – 686 (11 commercial & 675 residential)
- Number of e-leaf blowers to date – 75
- Number of Residential e-Trimmers – 79
- Number of Residential e-chainsaws – 16

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

- Total Number of Heat Pump Technology rebates to date- 1,146 (of this 158 LMI rebates to date as shown below)
  - Number of ductless heat pumps to date – 683
  - Number of LMI eligible ductless heat pumps to date – 129
  - Number of centrally ducted heat pumps to date – 227
  - Number of LMI eligible centrally ducted heat pumps to date – 18
  - Number of air-to-water heat pumps to date – 2
  - 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 – 73
  - Number of LMI eligible heat pump hot water heaters participants to date – 11

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

- Number of e-bike rebates to date – 563



**Electric Induction Stove Tops to Date (new offering in Jan 2021)**

- Number of induction Stove Tops rebates to date – 67

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

- Number of snow blower rebates to date – 20

# BED 2023-2024 Strategic Direction Dashboard

Metrics by Strategic Initiative	Target	Nov 2023 Actuals	Oct 2023 Actuals	Sept 2023 Actuals	Aug 2023 Actuals	July 2023 Actuals	June 2023 Actuals	May 2023 Actuals	Apr 2023 Actuals	Mar 2023 Actuals	Feb 2023 Actuals	Jan 2023 Actuals	2022 Yearly Actual	2021 Yearly Actual	2020 Yearly Actual	2019 Yearly Actual
<b>Engage Customers and Community</b>																
Call answer time 75% within 20 seconds	75%	88%	85%	76%	77%	77%	80%	71%	85%	88%	89%	85%	avg 82%	avg 82%	avg 81%	
Delinquent accounts >\$500	0	181	200	171	128	137	118	122	163	197	203	194	avg 188	avg 529	avg 201	
Disconnects for non-payment	0	0	47	0	0	6	17	42	77	32	3	0	12	0	45	
Energy Assistance Program Customers (program lifetime)	NA	224	214	201	190	160	154	146	138	134						
Energy Assistance Program Customers (currently enrolled)	300	209	199	178	158	142	139	128	125	119	119	110				
# of residential weatherization completions	10	1	1	1	0	1	0	2	3	1			5	5	3	11
Weatherization completions in rental properties		0	0	1	0	0	0	2	2	0	2	0	6	0	0	TBD
# or % of homes or SF weatherized		TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0
# of commercial building with improved thermal envelopes		0	0	0	1	1	0	1	1	1	0	0	4	5	5	0
Total annual mWh saved via the EE programs (annual goal)	4,657	2,010	1,774	1,494	1,343	1,276	1,010	800	654	441	130	TBD	4053			3057
Total residential annual mWh saved via the EE programs (cumulative for year)	748	442	356	471	399	369	322	286	202	141	60	TBD	862			917
Total commercial sector annual mWh saved via the EE programs (cumulative for year)	3,909	1,568	1,418	1,023	943	906	688	514	452	300	70	TBD	3191			2140
% of EEU charge from LMI customers spent on EE services for LMI customers (cumulative for 2021- 2023 year 3-year EEU performance period)	\$ 180,240	\$ 500,355	\$ 495,118	\$ 490,372	\$ 487,481	\$ 476,874	\$ 474,930	\$ 470,255	\$ 464,839	\$ 375,327	\$ 350,165	\$ 348,213	\$ 335,234	TBD	TBD	TBD
<b>Strengthen Reliability</b>																
SAIFI (AVG interruptions/customer) (annual target)	< 2.1	0.01	0.01	0.07	0.23	0.03	0.11	0.01	0.06	0.0	0.0	0.01	1.06	0.22	1.50	1.03
CAIDI (AVG time in hrs to restore service) (annual target)	< 1.2	3.45	0.79	2.93	0.23	1.17	0.39	0.91	1.51	1.36	1.22	2.17	21.39		0.55	0.75
Distribution System Unplanned Outages (annual target)	82	3	3	6	4	8	5	3	2	0	1	3	61	44	90	98
McNeil Forced Outages	0	2	0	0	0	0	0	0	1	1	0	1	14	5	21	TBD
W1H Forced Outages	0	0	0	0	0	1	0	0	0	0	0	0	6	9	2	TBD
GT Forced Outages	0	0	0	1	1	2	0	1	1	1	1	1	6	2	3	TBD
<b>Invest in Our People, Processes, and Technology</b>																
Avg. # of days to fill positions under recruitment	120	272	265	234	194	184	241	211	155	178	238	179	100	68	179	
# of budgeted positions vacant	0	15	13	14	12	15	12	11	11	10	7	7	avg 9	avg 9	6	NA

# BED 2023-2024 Strategic Direction Dashboard

	Target	Nov 2023 Actuals	Oct 2023 Actuals	Sept 2023 Actuals	Aug 2023 Actuals	July 2023 Actuals	June 2023 Actuals	May 2023 Actuals	Apr 2023 Actuals	Mar 2023 Actuals	Feb 2023 Actuals	Jan 2023 Actuals	2022 Yearly Actual	2021 Yearly Actual	2020 Yearly Actual	2019 Yearly Actual
<b>Metrics by Strategic Initiative</b>																
<b>Innovate to Reach Net Zero Energy</b>																
<i>Tier 3 Program</i>																
# of residential heat pump installs	See NZE Roadmap Goals below	17	23	22	21	11	4	24	13	8	10	25	255	315	203	10
# of commercial heat pump installs		1	1	1	0	1	0	1	0	0	1	0	4	4	13	0
# of residential hot water heat pump installs		2	0	11	0	2	2	5	1	1	0	6	26	14	6	4
# of commercial hot water heat pump installs		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heat pump rebates		18	24	23	23	12	4	31	14	9	12	26	271	328	212	0
Heat pump hot water heater rebates		2	2	11	0	2	2	3	1	1	16	6	18	15	3	0
LMI heat pump rebates		6	0	4	2	3	2	0	1	2	0	0	43	28	6	4
Heat pump technology installs in rental properties		0	1	1	1	0	0	1	1	1	1	1	10	14	9	TBD
LMI heat pump hot water heater rebates		1	0	1	0	0	0	0	0	2	1	0	1	2	0	1
EV rebates - new		27	2	6	11	8	9	8	5	10	6	4	53	67	14	36
EV rebates - pre-owned		2	2	0	4	3	0	0	5	0	0	0	18	7	8	2
LMI EV rebates		4	5	3	2	1	5	0	0	1	2	1	9	11	7	7
PHEV rebates - new		4	3	2	1	2	0	1	0	4	3	3	27	41	10	17
PHEV rebates - preowned		0	0	1	1	0	0	1	1	1	1	0	12	6	5	3
LMI PHEV rebates		2	1	1	1	0	0	0	0	0	0	0	15	13	6	2
Public EV chargers in BTV (total)		32 Ports	32 ports	32 Ports	32 Ports	32 Ports	30 ports	30 ports	30 ports	30 ports	30 ports	30 ports	30 ports	27 ports	27 ports	14
Public EV charger energy dispensed (kWh)		26,600	26,200	25,100	26,800	22,000	14,900	15,900	16,000	15,900	14,100	14,700	151,360	86,570	35,690	78,000
Home EV charging station rebates		5	4	10	3	2	7	10	12	8	5	3	70	32	20	12
EV rate charging customers (total)		242	230	228	219	213	208	204	192	178	168	162	157	157	40	28
Level 2 charger rebates		0	6	0	0	0	0	2	1	0	0	1	11	10	0	1
Level 1 charger rebates		0	0	0	0	0	0	0	0	0	0	0	-	0	1	0
E-bike rebates		8	16	14	30	11	22	23	13	3	3	0	152	88	36	65
E-mower rebates		5	5	14	21	9	21	42	16	0	0	1	159	154	95	142
E-forklift rebates		0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
MWE of Tier 3 measures installed		1,979	3,221	2,065	1,834	1,888	1,737	1,892	1,563	965	786	1,602	22,837	23,763	35,112	3,342
% Tier 3 obligation met with program measures	100%	102%	91%	75%	64%	54%	45%	35%	26%	17%	12%	8%	131%	159%	283%	31%
<i>Net Zero Energy Roadmap Goals</i>																
# of solar net metering projects installed		1	2	5	2	2	1	1	3	5	4	5	33	29	24	33
No. of homes receiving NZE Home Roadmaps		0	0	0	0	0	0	0	0	0	0	0	7	10	7	
Residential heat pumps for space heating (no. of homes)	2022: 8615	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	TBD	1235, 20% of goal	891	572
Commercial heat pumps for space heating (1000 SF floor space served)	2022: 5397	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	TBD	405, 11% of goal	374	374
Residential heat pumps for water heating (no. of homes)	2022: 4365	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	TBD	108, 4% of goal	108	87
Commercial heat pumps for water heating (1000 SF floor space served)	2022: 1019	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	TBD	0	0	-
EV registrations in BTV (light-duty)	2022: 2294	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	TBD	549, 45% of goal	361	296
Greenhouse gas emissions (1000 metric tons CO2)	2022: 150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	TBD	188, 114% of goal	185	214
Fossil fuel consumption (billion BTU)	2022: 2418	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	TBD	3220, 120% of goal	3,182	3,660

# BED 2023-2024 Strategic Direction Dashboard

	Target	Nov 2023 Actuals	Oct 2023 Actuals	Sept 2023 Actuals	Aug 2023 Actuals	July 2023 Actuals	June 2023 Actuals	May 2023 Actuals	Apr 2023 Actuals	Mar 2023 Actuals	Feb 2023 Actuals	Jan 2023 Actuals	2022 Yearly Actual	2021 Yearly Actual	2020 Yearly Actual	2019 Yearly Actual
<b>Metrics by Strategic Initiative</b>																
<i>Demand Response</i>																
<b>Manage Budget and Risks Responsibly</b>																
<i>Safety &amp; Environmental</i>																
No. of workers' compensation/accidents per month	0	0	0	0	2	1	0	1	1	0	1	0	16	4	8	
Total Paid losses for workers' compensation accidents (for the month)	annual	\$4,078	\$15,571	\$30,882	\$2,298	\$3,887	\$10,839	\$5,357	\$4,412	\$2,472	\$8,466	\$4,031	\$ 145,102	\$ 93,612	\$ 165,402	\$38,288
Last Time Incident Rate (days/year) (Dec numbers reflect annual results)	<= 3.5 annual	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.99	0.0	0.93	0.89
Last Time Severity Rate (days/year) (Dec numbers reflect annual results)	<= 71 annual	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	112.63	0.0	41.71	78.2
Lost work days per month	0	30	31	30	21	0	0	0	0	0	0	0	avg 9	0.0	45	
NOx reporting levels to EPA (Quarterly) (lbs/mmbtu)	<0.075	0.069	0.0	0.072	0.072	0.069	0.067	0.075	0.070	0.070	0.070	0.067	0.06	0.07	0.07	
# of reported spills, waste water incidents (monthly)	0	0	0	0	0	1	1	0	0	0	0	0	6	4	4	
Phosphorus levels to DEC in lbs (monthly/yearly total)	<0.8/37	.004/0.719	0.0/0.714	0.071/0.774	0.074/0.707	0.049/0.639	0.032/0.597	0.048/0.674	0.294/0.650	0.037/0.475	.050/.543	0.017/0.560	0.688	2.028		1.169
# of new power outage claims reported (monthly)	1	0	0	2	1	0	0	0	0	0	0	0	5	7	4	
# of new auto/property/other liability claims reported (monthly)	2	2	4	2	2	5	4	6	2	4	2	2	27	18	27	
<i>Purchasing &amp; Facilities</i>																
# of Purchase Orders for Inventory (Target: avg for winter months)	42	25	61	50	31	61	23	36	59	56	72	40	636	644	593	
\$ value of Purchase Orders for Inv. (Target: avg dollars spent during winter)	\$78,000	\$148,150	\$172,675	\$123,262	\$227,144	\$234,876	\$67,205	\$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)	320	469	576	620	681	490	470	695	575	571	516	569	6,187	4,402	4,545	
\$ value of stock issued for Inventory (Target: avg. during winter)	\$ 65,000	\$ 208,842	\$ 180,826	\$ 134,091	\$ 140,668	\$ 100,819	\$ 57,035	\$ 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)	58	0	0	48	24	35	179	88	43	59	43	73	900	2,728	627	
# of Spark Space and Auditorium setup/breakdowns monthly (Target: Covid impact)	3	17	24	17	23	10	19	23	18	20	9	16	132	88	87	
<i>Finance</i>																
Debt service coverage ratio (avg of previous 12-months)	1.25		4.48	4.39	4.05	4.25	3.77 (prelim)	2.71	3.83	2.36	2.64	3.91	NA-FY basis	NA-FY basis	NA-FY basis	NA-FY basis
Adjusted debt service coverage ratio (avg of previous 12-months)	1.5		1.4	1.5	1.4	1.48	1.28 (prelim)	0.84	1.02	0.67	0.8	1.02	NA-FY basis	NA-FY basis	NA-FY basis	NA-FY basis
Days unrestricted cash on hand	>90		122	135	105	102	93 (prelim)	107	117	93	100	120	NA-FY basis	NA-FY basis	NA-FY basis	NA-FY basis
<i>Power Supply</i>																
McNeil generation (MWH) (100%)	per budget	13,786	0	3,607	16,707	35,538	13,989	1,360	0	22,522	29,391	30,034	228,981	273,355	192,696	
McNeil availability factor	100%	91%	48%	64%	99%	97%	100%	98%	32%	94%	100%	84%	67%	80%		
McNeil capacity factor	per budget	38%	0%	10%	45%	96%	39%	3.7%	0%	61%	87%	81%	52.4%	62.4%		
Winooski One generation (MWH)	per budget	2,526	2,533	2,649	4,068	3,285	1,987	2,505	3,717	2,878	2,489	3,609	25,350	24,752	21,194	
Winooski One availability factor	100%	99%	98%	99%	99%	80%	99%	99%	99%	99%	99%	99%	98.3%	97%		
Winooski One capacity factor	per budget	47%	46%	50%	74%	60%	37%	46%	69.8%	52.3%	50.1%	67.7%	41.7%	37%		
Gas Turbine generation (MWH)	NA	96.4	168.1	75.0	61.8	47.1	0.0	0	0	8.1	4.7	0.0	356	373	441	
Gas Turbine availability factor	100%	95%	100%	84%	21%	0%	50%	39%	35%	36%	0%	0%	54.5%	96%		
Gas Turbine capacity factor	NA	0.6	1.0%	0.5%	0.4%	0%	0%	0%	0%	0%	0%	0%	0.2%	0.21%		
BTV solar PV production (mWh)		220	291	493	531	533	571	723	531	359	233	82	5,260	5,015	5,182	
Cost of power supply - gross (\$000)			\$2,472	\$2,366	\$2,835	\$2,983	-\$910	\$2,639	\$2,509	\$3,558	\$2,953	\$2,772	\$36,755	\$30,285	\$31,081	
Cost of power supply - net (\$000)			\$2,472	\$2,366	\$483	\$2,983	-\$910	\$1,995	\$1,534	\$3,558	\$927	\$2,772	\$27,487	\$22,134	\$23,388	
Average cost of power supply - gross \$/KWH			\$0.09	\$0.08	\$0.10	\$0.09	-\$0.03	\$0.11	\$0.10	\$0.13	\$0.11	\$0.10	\$0.11	\$0.09	\$0.10	
Average cost of power supply - net \$/KWH			\$0.09	\$0.09	\$0.02	\$0.09	-\$0.03	\$0.08	\$0.06	\$0.13	\$0.04	\$0.10	\$0.08	\$0.07	\$0.08	

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

**Wednesday, November 8, 2023**

The regular meeting of the Burlington Electric Commission was convened at 5:32 pm on Wednesday, November 8, 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 Beth Anderson, Lara Bonn, Jim Chagnon, and Scott Moody. Commissioner Whitaker was absent from the meeting.

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

Staff members present via Microsoft Teams included Rodney Dollar, Erica Ferland, James Gibbons, and Amber Widmayer.

**1. Agenda**

There were no changes to the agenda.

**2. October 25, 2023 Meeting Minutes**

Commissioner Chagnon made a motion to approve the minutes of the October 25, 2023 Commission Meeting; the motion was seconded by Commissioner Bonn and approved by Commissioners Bonn, Chagnon, and Moody. Commissioner Anderson abstained as she was not present for the meeting.

**3. Public Forum**

No one from the public was present at the meeting.

**4. Commissioners' Corner**

There were no Commissioner comments at this time.

**5. GM Update**

Mr. Springer stated that BED is concerned about a potential interruption to certain customer incentive programs. This is a result of processes that will be necessary at the Public Utility

Commission (PUC) to implement the new 3-year pilot program authorized in Act 44, which is a continuation of the current Act 151 3-year pilot. Act 151 allows BED to utilize efficiency funds to supplement our emissions reduction programs through Tier 3 and fill gaps in existing programs. Currently, Act 151 funding supplements our heat pump, EV, and EV charging rebates, and solely supports our geothermal test well program and EV dealer programs. Absent some type of authorization or a rapid process at the PUC, it is likely that BED will reduce or temporarily discontinue certain incentive programs in January, pending final approval of BED's Act 44 proposed programs, which also include our new "super-user" EV incentive. Our team is fully exploring options to avoid or minimize disruption to customer programs.

While it has been our tradition every January to present to the Commission and the public our incentives for the year, Mr. Springer does not believe we will have the regulatory clarity to present at that time and believes it will be late winter or early spring before we are able to announce our incentives. The goal between now and then is trying to keep programs steady because we know that, if you disrupt the consumer incentives marketplace, a very negative perception for anyone who's going to purchase during that time may result, having stability is very valuable.

The UVM Solar Research and Training Facility located at-the McNeil Generating Station came online in October at an event featuring Senator Sanders, UVM President Garimella, Mayor Weinberger, Encore Renewable Energy, and the BED and McNeil teams and McNeil Joint Owners. Despite the terrible weather, we were able to energize the facility and officially cut the ribbon. This project has provided an excellent collaborative opportunity, and a tangible step in our effort to utilize the McNeil Plant for energy innovation.

Mr. Springer stated that, at the November 20 City Council meeting, BED will be presenting the carbon pollution impact fee on which we've been working for a very long time. The carbon fee would be the first application of carbon pricing anywhere in the state of Vermont. This carbon fee required a charter change and two town meeting day votes and has gone through six meetings of the Transportation, Energy, Utilities Committee (TEUC), and now is ready to be acted on by the City Council.

In addition, BED also will present district energy at the November 20 Council meeting. The district energy term sheets that were approved at last month's Commission meeting were approved by the McNeil joint owners at their November 6 meeting. Also included is the franchise agreement and an easement for 99 Intervale Road as part of a package to the City Council on November 20.

Mr. Springer stated that, if our goal is to reduce fossil fuel use in the City of Burlington, both the carbon fee and district energy help get us there in a way that other initiatives cannot. November 20 could be a very significant night for our NZE Roadmap metrics if we're able to advance those initiatives.

Mr. Springer stated that we are working on a charter change proposal for the next Town Meeting Day. BED's \$5M line of credit (that we have not utilized) counts toward our days cash on hand

metric for Moody's. This has not grown commensurate with inflation or our budget or any other metric.

The City Charter states that we can have \$5M for working capital for the department, and we are working with the CAO and the City's Bond Council, along with our debt advisors at PFM to determine if there is a way to put this on the ballot to possibly double the line of credit from \$5M to \$10M. The line would be something we could draw on if needed, but we do not anticipate any foreseeable scenario. The line would support a stronger days cash on hand metric and put less pressure on BED to raise rates to generate cash for that metric as part of our regular operating principle.

## **6. FY23 Audited Financials**

Ms. Stebbins-Wheelock stated that BED's audited Financial Statements were issued on Friday, October 27, meeting the target deadline set by our general bond resolution for issuance within 120 days following the end of the fiscal year. Ms. Stebbins-Wheelock thanked the Finance Team for their great work to complete the audit; it was a smooth process this year thanks to their efforts.

Ms. Stebbins-Wheelock stated that the audited financials present two sets of statements, one is for the proprietary or enterprise fund, which is BED including EEU activities, and the other for the EEU as a separate fiduciary fund, which is the result of a GASB standard change implemented in FY21.

Reviewing the balance sheet, Ms. Stebbins-Wheelock noted that capital assets net of accumulated depreciation increased by just under \$3M compared to FY22, or approximately 3%, which reflects the investments we've been making with the proceeds from the 2022 revenue bond. Under current assets, our cash has dropped due to a combination of things, primarily due to our operating expenses growing more than our revenues grew, which has been discussed with the Commission throughout the year. Overall, current assets increased slightly compared to FY22. Under non-current assets, restricted to deposits with bond trustees decreased compared to FY22 due primarily to drawdowns from the construction fund as we've been spending on capital projects. Regulatory assets increased by \$1.8M compared to FY22 to just over \$6M; primarily due to the new regulatory accounting treatment to defer and amortize \$4.162 million of lost winter energy revenue. Inventories associated with Tier 1 RECs and Tier 3 credits did not change substantially from FY22 to FY23. Equity interests in associated companies increased modestly due to a VELCO equity purchase in FY23. Total assets did not change significantly between FY22 and FY23 and remain at approximately \$185.6M. Under deferred outflows, the largest change is pension amounts which increased significantly from \$3.2M in FY22 to \$6.2M in FY23. Changes in these amounts are not within BED's span of control, but result from changes in the City pension system liability due to a planned reduction in expected investment returns set by the BERS Board (which affect total pension liability) and actual pension fund investment returns (which affect the fund's fiduciary position). Investment returns were favorable in FY22, but unfavorable in FY23, contributing to the increased net pension liability.

Moving to the liability side of the balance sheet, Ms. Stebbins-Wheelock noted that total current liabilities dropped approximately \$1.2M from FY22 to FY23, mostly due to timing of accounts payable at June 30 and the maturity schedules of our bonds. Non-current liabilities increased by approximately \$7M in FY23 compared to FY22, due to bond maturity schedules and, most significantly, a \$10M increase in net pension liability. Also, pension amounts of deferred inflows decreased just under \$6M.

Overall, the Department's net position increased by 2.6% from \$63.172M in FY22 to \$64.811M in FY23, with a decrease in unrestricted net position more than offset by an increase in net investment in capital assets.

Next, Ms. Stebbins-Wheelock reviewed the statements of revenues, expenses, and changes in net position (income statement). Sales revenues increased from \$48.9M to \$50.5M, largely a result of the 3.95% rate increase effective August 1, 2022. Other revenues increased from \$11.1M to \$12.4M, largely due to program cost reimbursements from EEU. The REC revenue component of other revenues decreased slightly from FY22 to FY23 due to a lower volume of RECs available for sale. Total operating revenues net of provision for uncollectible accounts increased from \$59.47M in FY22 to \$62.816M in FY23.

Production expenses, which is everything related to our generation assets (50% share of McNeil, gas turbine, Winooski One, and our solar assets), increased from \$11.329M in FY22 to \$12.17M in FY23 or 7.4%. Purchased power expense, which includes our power contracts and capacity charges decreased from \$14.745M to \$13.5M, or just under 8%. The expense decrease was the net result of the regulatory accounting treatment of lost winter energy revenue, lower VT Wind production, higher Mystic capacity charges, higher Hydro-Quebec charges. Transmission expenses increased from \$8.8M in FY22 to \$9.3 in FY23, a 4.7% increase. Distribution expenses, which is all expense related to the operation and maintenance of our distribution plant (streetlights, meters, overhead, underground, etc.), decreased modestly from \$3.3M in FY22 to \$3.17M in FY23. Customer accounting, service, and sales expenses increased from just under \$6M in FY22 to \$7.7M in FY23, largely due to increased EEU program activity expenses (corresponding to the increased EEU program revenues). Administrative and general expenses increased by \$1.7M or 36.3% from FY22 to FY23; most of the increase is due to the year-end pension expense adjustment. Depreciation and tax expense both increased modestly from FY22 to FY23.

Ms. Stebbins-Wheelock then covered non-operating items, including VELCO/Transco dividend income, interest income (which increased significantly from FY22 to FY23 due to higher interest rates), decreased grant income, and increased interest income on debt based on debt service schedules.

Ms. Stebbins-Wheelock stated the Department's net position (or net income) for FY23 was \$1.638M for FY23 compared to \$1.938M in FY22.



Ms. Stebbins-Wheelock then reviewed the FY23 cash flow statement. Cash flow from operating activities shows that the Department received more cash from sales to customers and other revenues in FY23 compared to FY22, as just discussed when reviewing the income statement. The cash flow statement next shows the payments made to fund the Department's various operating activities. The net cash provided by operating activities in FY23 was \$2.5M, compared to \$8.616M in FY22. As discussed previously with the Commission, the accounting treatment for the winter energy revenue reduces the Department's expense, doesn't affect cash inflows or outflows.

The next section of the cash flow statement presents cash flows related to the Department's capital and financing activities. In FY22 the Department reported net cash provided from capital and related financing activities of \$11.7M; in FY23 net cash used in these activities was \$12.8M. This change is due to the receipt of the 2022 revenue bond construction fund in FY22. Non-capital financing activities cash flow is primarily related to the PILOT payment to the City. Cash flows from investing are related to funds held with bond trustees.

Finally, Ms. Stebbins-Wheelock reviewed the FY23 EEU financial statements. The EEU's statement of net position shows the effect of increased EEU spending in FY23 in the lower cash balance, which fell from \$3.7M in FY22 to \$1.8M in FY23. The EEU statement of net position shows EEU revenues from the energy efficiency charge, the forward capacity market, and the regional greenhouse gas initiative. Overall, total EEU additions decreased by \$0.5M from FY22 to FY23, mostly due to a lower EEC charge. Total deductions from the EEU increased from \$2.9M in FY22 to \$4.5M in FY23, largely due to increased program payments.

## **7. FY24 September Financials**

Ms. Stebbins-Wheelock presented the September 2023 financial results.

The Department's net income for the month of September was \$539K compared to a budgeted net loss of \$482K, which is \$1.022M better than budget.

Sales to customers was better than budget by \$216K or 4.8%. Both residential and commercial sales were higher than budget. Other revenues, primarily EEU, were less than budget by \$75K.

Net power supply expense was favorable to budget by \$454K in September. Fuel expense was favorable to budget by \$283K because McNeil production was 69% under budget due to economics. Transmission was favorable to budget by \$125K due to lower than expected peak loads in August, which decreased the rate for September. Purchased power expense was \$46K better than budget due to lower wind and McNeil production partially offset by higher ISO-NE exchange and low energy prices.

Other operating and maintenance expenses were unfavorable to budget by \$106K.

Other income was favorable to budget by \$606K, mainly due to \$560K in grant proceeds for the electric bucket truck.

For FY24 to date, net income was \$2.6M compared to a budgeted net income of \$903K or \$1.674M better than budget.

Ms. Stebbins-Wheelock stated that while Q1 results are favorable, the Department does have some concerns about the year-end forecast, mostly in power supply. Winter energy forwards are lower than budget, resulting in a projection of approximately \$1.4M more in purchase power expense compared to budget. The Department is also projecting that REC revenues will be \$815K lower than budget due to lower wind and McNeil production in prior periods.

Capital spending for September YTD was \$1.5M or 13% of the budget for the year.

Operating cash at the end of September was \$8.9M compared to a budget of \$8.6M. The annual \$3M general obligation bond funding and electric bucket truck grant income was received in September.

The debt service coverage ratio is 4.39, the adjusted debt service coverage ratio is 1.45, and the days cash on hand is 135.

Ms. Stebbins-Wheelock stated that the Department is planning for FY25 budget development and will be presenting to the Commission a “BED budget 101” historical overview at a future meeting.

## **8. SCADA/OMS/DMS Project Overview**

Mr. Kasti stated that he is presenting a PowerPoint presentation on one of BED’s FY 24 projects, *“the Advanced Distribution Management System Project.”*

This is a 3-phase project that will include the new Supervisory Control and Data Acquisition system (SCADA) and an Outage Management System (OMS) along with a Distribution Management System (DMS).

The SCADA system provides real-time monitoring and control of the electric distribution system for BED System Operators. Many devices on the BED system are SCADA-controlled (e.g. reclosers, switches), allowing our System Operators to control the electrical distribution system remotely without the need to dispatch line crews.

Our current SCADA system was last upgraded in 2016, is considered past “end of life,” and has limited vendor support until March 2024.

In April 2023, BED issued a request for proposal for a new Advanced Distribution Management System (ADMS). The new ADMS will have many of the same SCADA functions as the legacy system, along with new enhancements of an OMS and DMS. This functionality will enhance system operations, while providing better reliability and power quality to our customers.

The OMS will provide BED with outage location, customer outage portal, mobile crew management, customer call handling, and customer outage notification.

The DMS will provide BED System Operations with a training simulator, automatic fault location, isolation, and service restoration, as well as provide a distribution system optimization tool for voltage and power quality.

Mr. Kasti provided a timeline that includes presenting at the December 11, 2023 Commission meeting the department's vendor selection, as well as asking for the Commission's recommendation of contract terms to the City Council.

In late winter or early spring 2024, the implementation of Phase 1 - SCADA and the installation of the new SCADA video wall will take place.

In FY25, the implementation of Phases 2 and 3, the DMS and the OMS, will take place.

## **9. BED 2023 Property/B&M Renewal**

Mr. Alexander stated that our insurance agent (Hickok & Boardman: H&B) has worked diligently with our existing 4 carriers and is still in negotiations with them to finalize "capacity" (the largest amount of insurance that a company or the market is able to write), Total Insurable Value (TIV)'s, deductibles, and premium.

The renewal premium is anticipated to increase from last year's amount of \$683,117.34 to a not to exceed \$778,683.70 (which is 6.4% higher than our estimated renewal premium at 11/20/23 in the FY'24 budget of \$731,619). Please note our insurance agent (H&B has shared that there is the possibility of achieving a lower renewal premium using deductible options and last-minute pricing negotiations (still to be finalized).

Similar to last year, our TIV will be capped at \$175,000,000 of property (vs. our current fully scheduled TIV of \$319,009,000). The McNeil Station's TIV is listed at \$235,316,000 with a ratable TIV of \$213,316,000.

Our FY24 budgeted amount of \$711,410 (produced in February 2023 and adopted in June 2023) was calculated using 5 months at the "current/known" premium amount (\$683,117) and 7 months at the projected amount (\$731,619).

Thus, using the “not to exceed” premium of \$778,683.70 would amount to a 6.4% change in our estimated renewal within the FY24 budget and a 13.9% increase over our expiring premium of \$683,117. Again, please note that in H&B’s cover letter, they reference a possibility of a lower estimated renewal premium, which is still to be finalized.

The “not to exceed” premium of \$778,683.70 would amount to a 3.85% increase in our total FY24 budget for this line of business (from \$711,410 to \$738,864).

Commissioner Bonn made a motion to authorize the General Manager of the Burlington Electric Department to execute the Property, Boiler & Machinery insurance coverage renewal contract with AIG/ZURICH/STARR TECH/AEGIS for the policy period 11/20/2023 through 11/20/2024 with a not to exceed premium of \$778,683.79, subject to review and approval of the City Attorney’s Office; this motion was seconded by Commissioner Chagnon and approved by all members present.

#### **10. Commissioners’ Check-In**

Commissioner Moody welcomed Commissioner Anderson to the Burlington Electric Commission.

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

The meeting of the Burlington Electric Commission adjourned at 6:47 p.m.

Attest:

  
\_\_\_\_\_  
Laurie Lemieux, Board Clerk



*FY 2024  
Financial Review  
October*

*December 5, 2023*

# **Burlington Electric Department Financial Review**

**FY 2024**

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## FINANCIAL HIGHLIGHTS – BUDGET VS ACTUAL as of OCTOBER FY24

(\$000)	Full Yr Budget	CURRENT MONTH			YEAR TO DATE		
		Budget	Actual	Variance	Budget	Actual	Variance
Sales to Customers	53,110	4,001	4,271	270	18,602	18,881	279
Other Revenues	3,775	292	238	(54)	1,233	823	(410)
Power Supply Revenues	8,244	0	0	0	2,440	2,351	(89)
Total Operating Revenues	65,130	4,293	4,509	216	22,275	22,055	(220)
Power Supply Expense (Net)	33,880	2,875	2,471	404	12,147	10,655	1,492
Operating Expense	22,846	1,831	1,808	23	7,482	7,244	238
Depreciation & Amortization	6,630	552	541	11	2,210	2,127	82
Taxes	3,369	273	280	(7)	1,131	1,146	(16)
Sub-Total Expenses	66,725	5,531	5,100	431	22,969	21,173	1,796
Operating Income	(1,595)	(1,238)	(591)	647	(694)	882	1,576
Other Income & Deductions	5,044	484	510	25	1,645	2,479	835
Interest Expense	3,166	267	299	(32)	1,069	1,164	(94)
Net Income (Loss)	283	(1,021)	(380)	641	(118)	2,197	2,315

### Year-to-Date Results:

- **Sales to Customers** up \$278,600 (1.5%). Residential Sales up \$46,400 and Non-Residential Sales up \$230,400.
- **Other Revenues** down \$410,000 (33%)
  - a. DSM billable (customer driven).
- **Power Supply Revenues** down \$89,000 (4%)
  - a. McNeil REC revenue of \$1,538,000 compared to a budget of \$1,447,000.
  - b. Wind REC revenue of \$593,000 compared to a budget of \$769,000.
  - c. Hydro REC revenue of \$221,000 compared to a budget of \$224,000.
- **Power Supply Expenses (Net)** down \$1,492,000 (12%)
  - a. Purchased Power down \$675,000.
  - b. Transmission down, \$44,000.
  - c. Fuel down \$773,000.
- **Taxes**
  - a. Actual Payment in Lieu of Tax (PILOT) will be \$27,000 higher than budget assumption for the year.
- **Operating Expenses** down \$238,000 (3.2%)
  - a. Various operating expense items are less than budget including DSM (rebates & outside services) (\$189,600), materials & supplies (\$50,600) and RPS Compliance (\$79,700).
- **Other Income & Deductions** higher \$835,000 (50.7%)
  - a. Received grant for EV budget truck, \$560,000.
  - b. Actual includes unrealized gain on investment \$217,100.
  - c. Retirements budgeted in August (\$135,000) have not happened.
  - d. Timing of jobbing unfavorable \$75,000.

## FINANCIAL HIGHLIGHTS – BUDGET VS ACTUAL as of OCTOBER FY24

Capital Spending – October YTD (\$000s)				
Plant Type	Full Yr. Budget	Budget	Actual	% Spent
Production	\$2,038	\$1,032	\$474	23%
Other	415	141	21	5%
Distribution	7,166	1,704	1,241	17%
General	1,343	401	322	24%
<b>Total</b>	<b>\$10,963</b>	<b>\$3,278</b>	<b>\$2,058</b>	<b>19%</b>

- (1) **Production** – Timing of turbine control system upgrade at McNeil plant, \$122,900 and various projects at Winooski One Hydro, \$187,800 and Gas Turbine, \$145,400.
- (2) **Other** – Timing; budget includes Policy & Planning Research & Development, Direct Current Fast Chargers (new locations) and EV Charger Installations (Level 2). Actual includes spending on Public Level 2 EV chargers and Distributed Energy Resources.
- (3) **Distribution** – Timing of various projects.
- (4) **General** – Actual includes full cost of the all-electric bucket truck less state grant \$560,000.

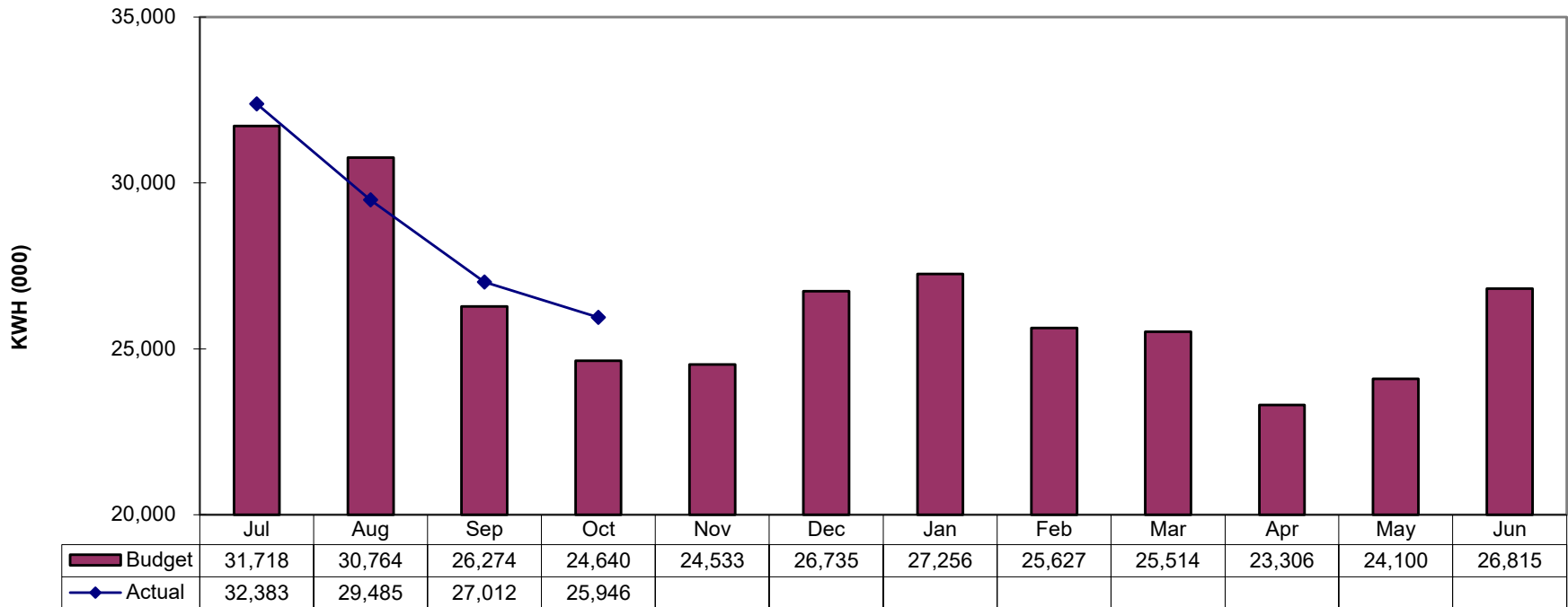
As of October 31, 2023 Operating Cash and Investments	
Operating Funds	\$10,377,400
Operating Fund – CDs	\$980,400
Total Operating Cash	\$11,357,800

Credit Rating Factors – October 2023				
	"A"	"Baa"	Current	3 Year Average
Debt Service Coverage Ratio	1.25	1.25	4.48	3.92
Adjusted Debt Service Coverage Ratio	1.50	1.10	1.44	1.10
Cash Coverage - Days Cash on Hand	90	30	122	112



**Burlington Electric Department  
Fiscal Year Ending June 30, 2024**

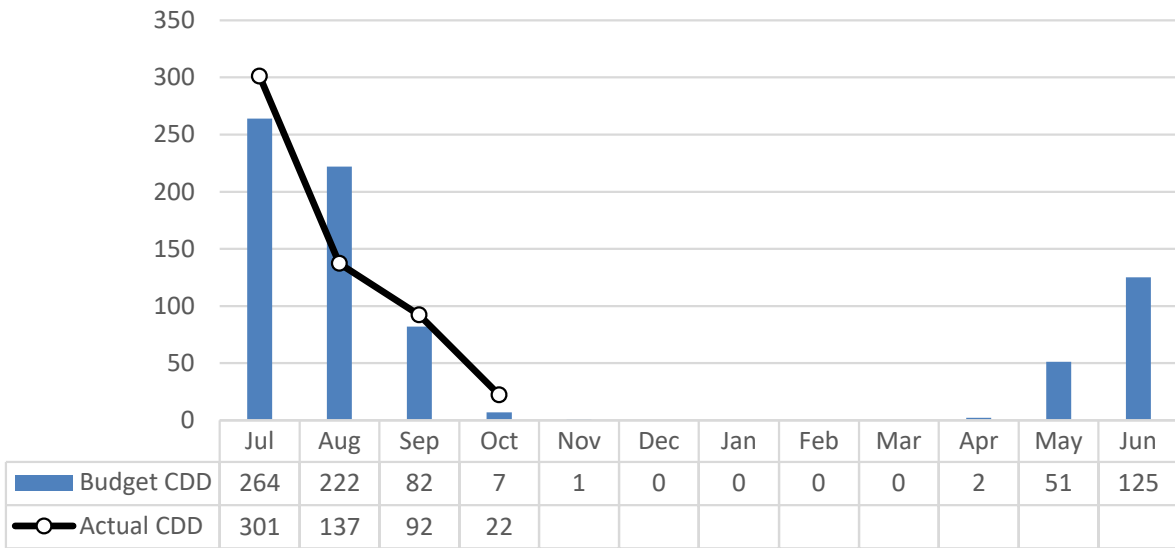
**Total Sales to Customers - KWH  
Monthly**



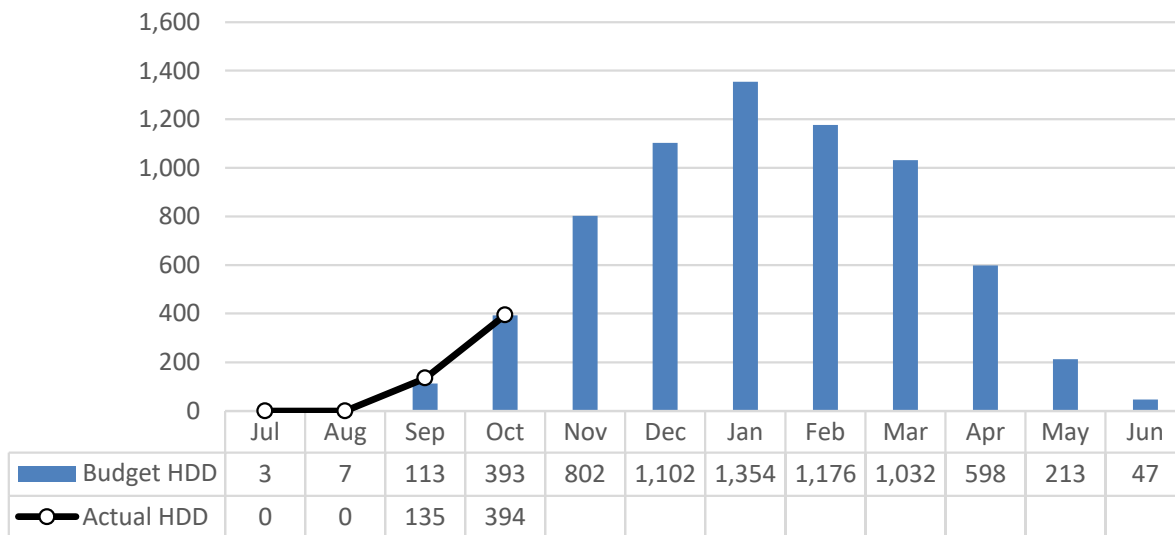
KWH Sales to Customers (YTD)												
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
<b>Budget</b>	31,718	62,482	88,756	113,397	137,930	164,665	191,921	217,547	243,061	266,367	290,468	317,283
<b>Actual</b>	32,383	61,868	88,880	114,826								

## FY 2024

### Cooling Degree Days (CDD)



### Heating Degree Days (HDD)

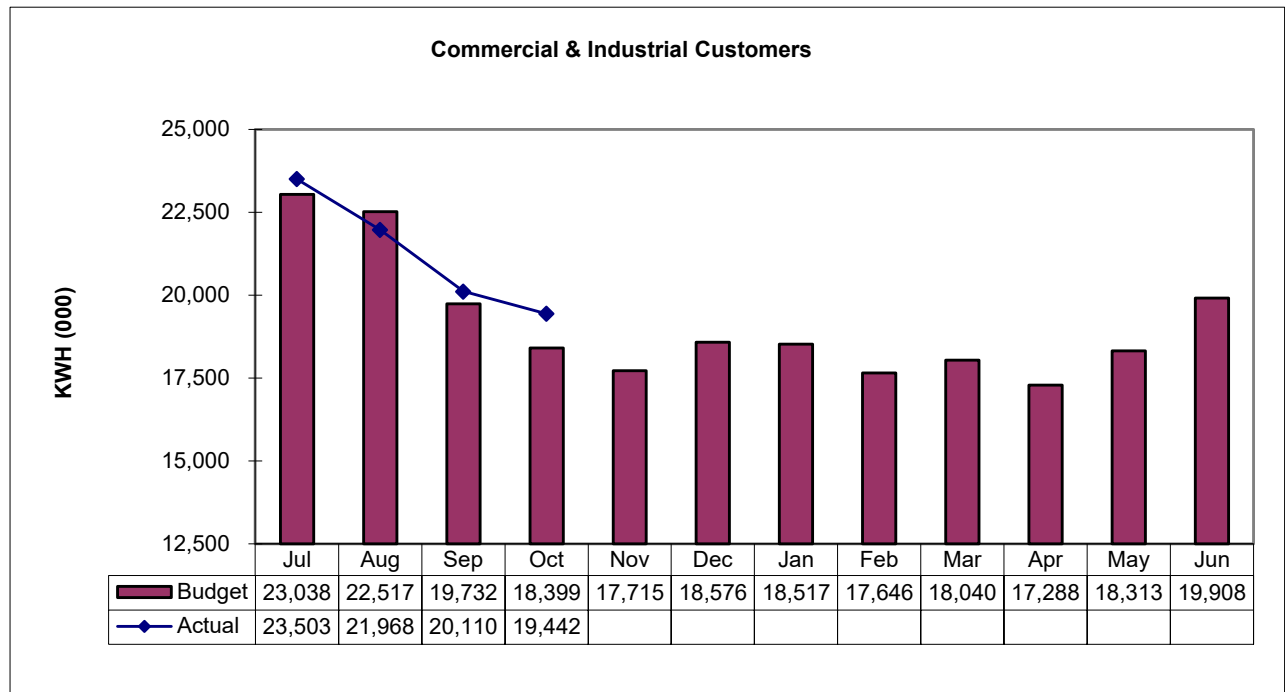
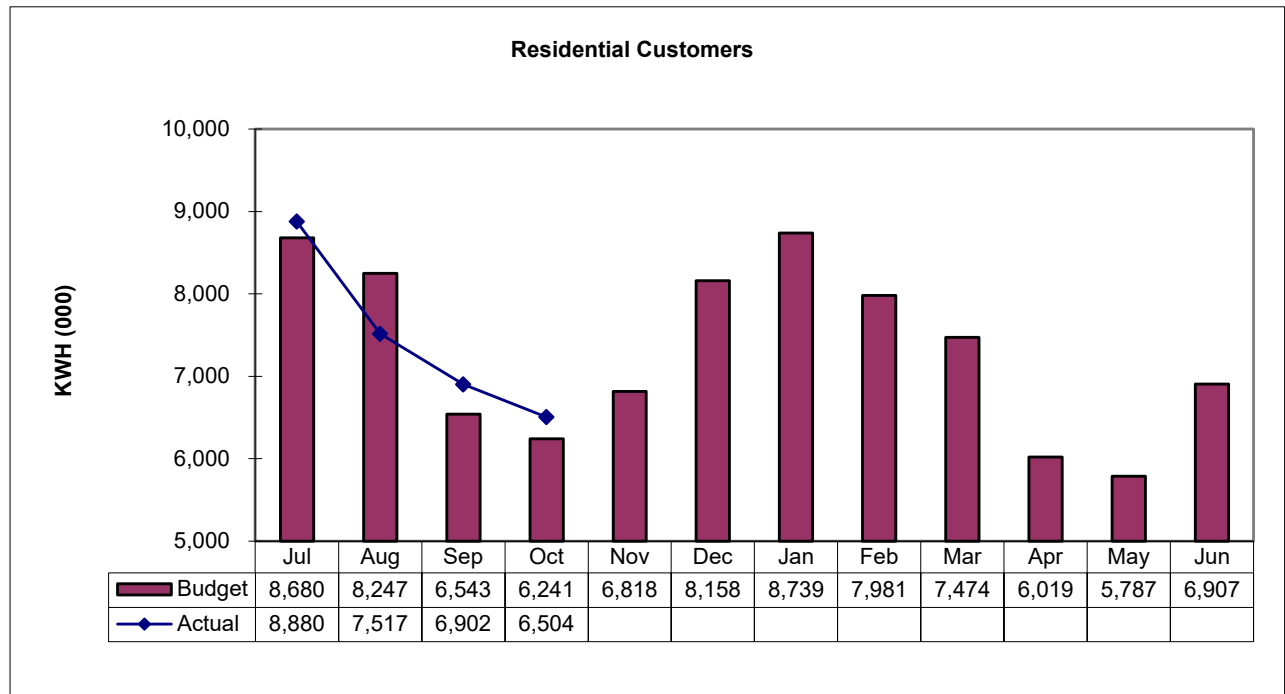


### Average Monthly Temperature

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Budget	73	72	64	52	39	29	22	23	32	45	59	67
Actual	74	69	57	56								

**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, 2024  
KWH Sales**



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

# **Net Power Supply Costs** **October - FY 2024**

	(\$000)						
	Current Month				Year-to-Date		
	Budget	Actual	Variance		Budget	Actual	Variance
<b>Expenses:</b>							
Fuel (p. 7)	\$572	\$114	\$458	(1)	\$3,006	\$2,233	\$773 (1)
Purchased Power (p.11)	1,628	1,505	123	(2)	5,948	5,273	675 (2)
Purchased Power Adjustment (p 11)	43	43	(0)		173	173	(0)
Transmission Fees - ISO	562	750	(189)	(3)	2,594	2,620	(26) (3)
Transmission Fees - Velco	25	22	3		203	187	17 (4)
Transmission Fees - Other	45	37	8		222	169	53 (5)
Total Expenses	2,876	2,472	404		12,147	10,655	1,492
<b>Revenues:</b>							
Renewable Energy Certificates - McNeil	0	0	0		1,447	1,538	91
Renewable Energy Certificates - Wind	0	0	0		769	593	(176)
Renewable Energy Certificates - Hydro	0	0	0		224	221	(3)
Renewable Energy Certificates - Other	0	0	0		0	0	0
Total Revenues	0	0	0		2,440	2,351	(89) (6)
Net Power Supply Costs	2,876	2,472	404		9,707	8,304	1,403
Load (MWh)	25,425	26,747	1,322		116,515	118,232	1,717
\$/MWh	\$113.10	\$92.42	(\$20.68)		\$83.31	\$70.23	(\$13.08)

## **Current Month:**

(1) See detail on page 7.

(2) See detail on page 11.

(3) September Peak load over Budget.

## **YTD:**

(1) See detail on page 7.

(2) See detail on page 11.

(3) ISO-NE Peak Load over Budget.

(4) VELCO Common charges under Budget.

(5) NYPA NYISO Transmission charges under Budget.

(6) REC Sales projected to be 13% under Budget due to lower McNeil and Wind production in calendar year 2023.

# **Net Power Supply Costs** **October - FY 2024**

	(\$000)						
	Current Month				Year-to-Date		
	Budget	Actual	Variance		Budget	Actual	Variance
<b><u>FUEL:</u></b>							
<b>McNeil:</b>							
Fuel Consumed	291	1	291	(1)	1,932	1,440	491 (1)
Swanton Yard	61	0	61	(1)	204	171	32 (1)
Train Deliveries	138	0	138	(1)	438	256	182 (1)
Labor & Other Expenses	73	29	44	(2)	364	202	163 (2)
Total McNeil Fuel	562	29	533		2,938	2,069	869
Gas Turbine	10	85	(75)	(3)	69	164	(95) (3)
<b>Total Fuel</b>	<b>572</b>	<b>114</b>	<b>458</b>		<b>3,006</b>	<b>2,233</b>	<b>773</b>

## **Current Month:**

(1) McNeil offline in October. Wood Price per Ton 6% over Budget. (p. 8)

(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 production (168 MWh) 737% over Budget.

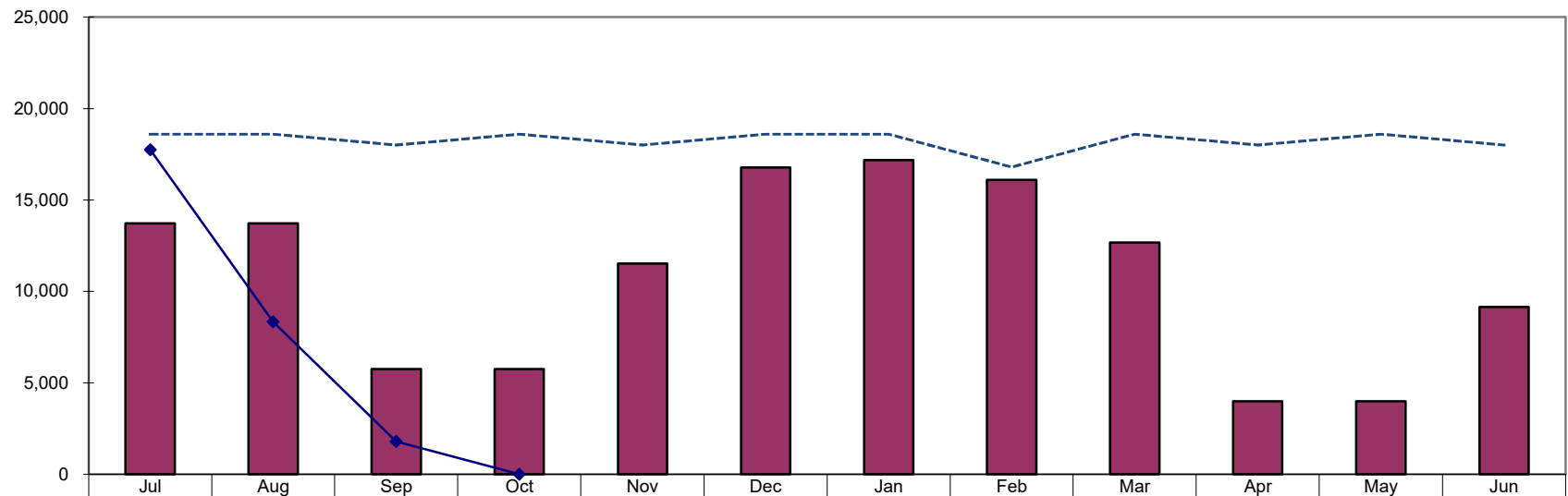
## **YTD:**

(1) McNeil production 28% under Budget. Wood Price per Ton 4% over Budget. (p. 8)

(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.

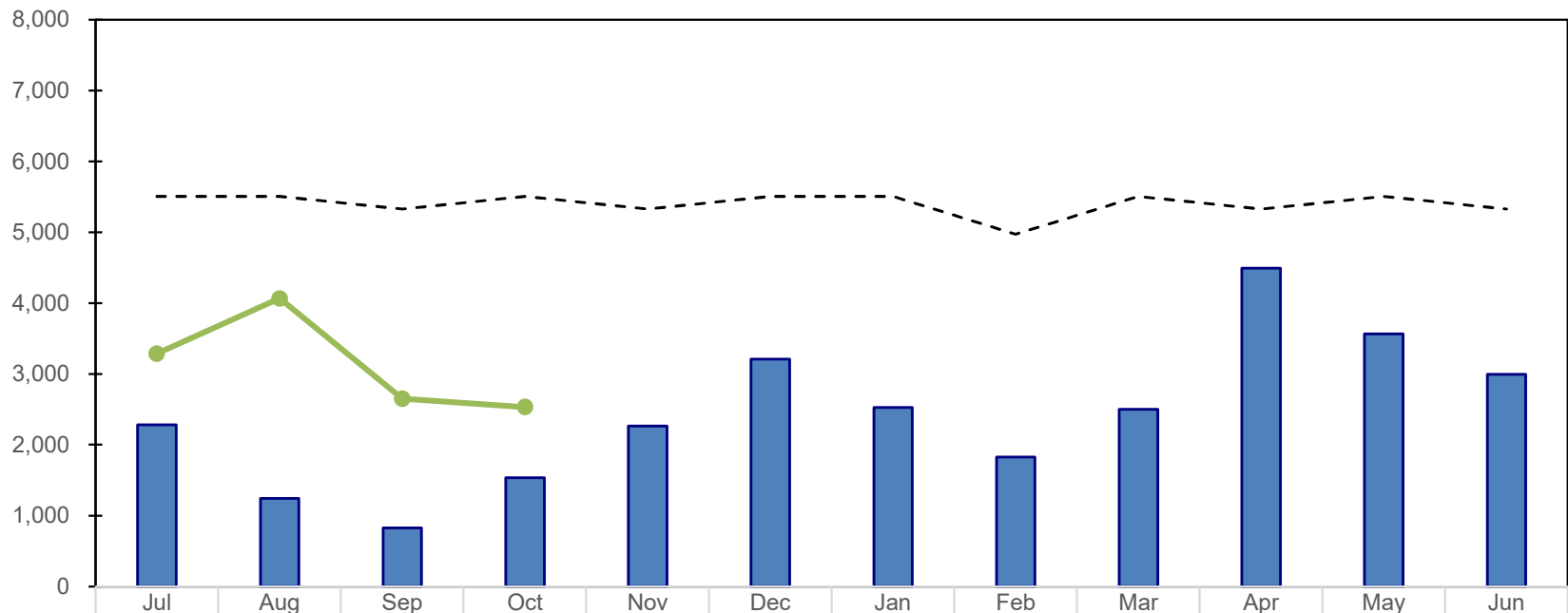
(3) GT production (348 MWh) 208% over Budget.

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



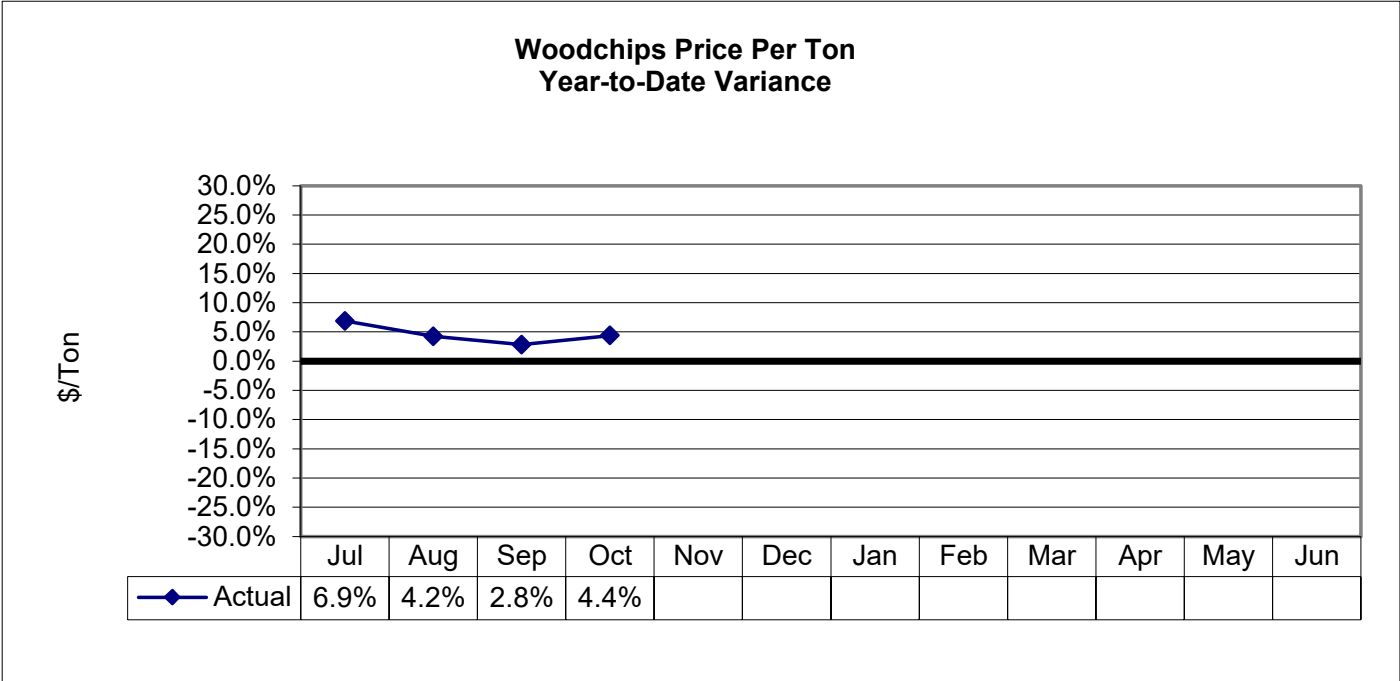
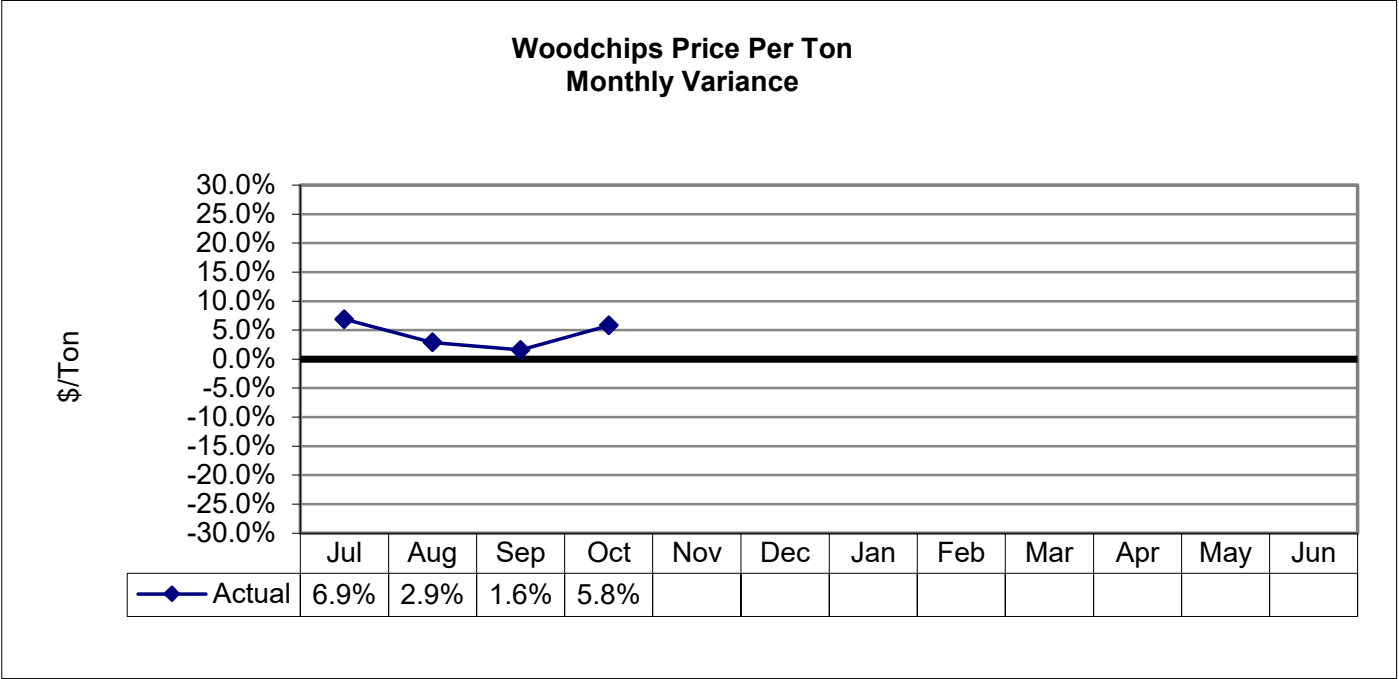
<span style="display:inline-block; width:15px; height:10px; background-color:maroon; border:1px solid black;"></span> Budget	13,721	13,721	5,764	5,764	11,529	16,785	17,185	16,113	12,671	3,993	3,993	9,152
<span style="display:inline-block; width:15px; height:1px; background-color:blue; border-bottom:2px solid blue; position:relative; top:-5px;"><span style="position:absolute; left:-5px; top:0; width:0; height:0; border-left:5px solid transparent; border-right:5px solid transparent; border-bottom:8px solid blue;"></span></span> Actual	17,749	8,344	1,804	0								
<span style="display:inline-block; width:15px; border-bottom:2px dashed blue;"></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 2024**



<span style="color: blue;">■</span> Budget	2,281	1,243	830	1,538	2,263	3,210	2,526	1,829	2,500	4,494	3,568	2,996
<span style="color: green;">—●—</span> Actual	3,285	4,068	2,649	2,533								
<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 2024



\* Wood only. Does not include other costs.



**Net Power Supply Costs  
October - FY 2024**

	(\$000)						
	Current Month			Year-to-Date			
	Budget	Actual	Variance	Budget	Actual	Variance	
<b><u>PURCHASED POWER:</u></b>							
Non-Energy (capacity)	98	49	49	(1)	430	306	124 (1)
<b>Energy:</b>							
Georgia Mountain Wind	336	321	15	(2)	998	845	153 (2)
Hancock Wind	283	105	179	(3)	751	545	206 (3)
VT Wind	244	201	42	(4)	644	528	116 (4)
Hydro Quebec	293	293	0		1,161	1,161	0
Great River Hydro	176	176	0		699	697	2
In City Solar Generators	56	50	7		351	308	43 (5)
NYPA	6	7	(1)		25	28	(4)
ISO Exchange	14	271	(257)	(5)	481	520	(39) (6)
ISO Exchange Adjustment	43	43	(0)	(**)	173	173	(0) (**)
Velco Exchange	0	(0)	0		0	(1)	1
Total Energy	1,451	1,467	(15)		5,284	4,806	478
Ancillary Charges	(12)	(30)	18	(6)	(213)	19	(232) (7)
Miscellaneous	135	63	72	(7)	619	314	305 (8)
<b>Total Purchased Power Expense</b>	<b>1,672</b>	<b>1,548</b>	<b>123</b>		<b>6,121</b>	<b>5,446</b>	<b>675</b>

**Special Note (\*\*)**

Adjustment to reduce expense and create regulatory asset by amount of ISO Exchange excess winter energy revenue shortfall (\$4,162,233) and record one-eighth (\$520,279) as amortization in FY24.

**Current Month:**

- (1) Mystic Costs under Budget.
- (2) Production 4% under Budget.
- (3) Production 43% under Budget. \$57k moved from Hancock to ISO-NE Exchange in October for September.
- (4) Production 17% under Budget.
- (5) Production (Wind (22%) and McNeil (100%)) under budget.
- (6) Forward Reserves provided by GT below Budget.
- (7) Timing: REC Expense reported quarterly, budgeted monthly.

**YTD:**

- (1) Mystic Costs under Budget.
- (2) Production 15% under Budget.
- (3) Production 27% under Budget.
- (4) Production 18% under Budget.
- (5) Production under Budget.
- (6) Energy prices under Budget. Winooski One Production (130%) over budget.
- (7) Forward Reserves provided by GT under Budget.
- (8) Timing: REC Expense reported quarterly, budgeted monthly.

**Burlington Electric Department**  
**Operating and Maintenance Expense by Spending Category**  
**FY 2024 - October YTD**

	<b>Budget</b>	<b>Actual</b>	<b>Variance</b>	<b>% Variance</b>	<b>*</b>
Labor-Regular	3,044,273	2,901,077	143,196	5%	
Labor-Overtime	160,224	160,852	(628)	0%	
Labor-Temporary	30,600	21,044	9,556	31%	
Labor-Overhead	1,159,380	1,145,080	14,300	1%	a
Outside Services	1,010,486	1,084,347	(73,861)	7%	
DSM (rebates & outside services)	664,394	474,769	189,625	29%	b
Materials & Supplies	309,616	258,972	50,644	16%	c
Insurance	256,043	234,167	21,876	9%	
A & G Clearing	(284,327)	(168,199)	(116,128)	41%	d
Other - RPS Compliance	289,492	209,779	79,713	28%	
Other	840,221	922,132	(81,911)	10%	e
<b>Operating &amp; Maintenance Expense</b>	<b>7,480,404</b>	<b>7,244,020</b>	<b>236,384</b>	<b>3%</b>	

(a) See page 13.

(b) 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.

(c) Timing; Generation-GT/W1 (\$31,700), Safety/Environmental (\$12,700), & McNeil Plant (\$11,900).

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

(e) Actual includes annual amortization expense associated with the Moran Frame payment. The annual amount is \$118,839. Includes reclass of obsolete light, \$32,200.

**Burlington Electric Department  
Budget vs Actual Spending Analysis  
FY 2024 - October YTD**

Labor - Overhead	(000's)				
	Budget	Actual	Variance	%	
Pension	\$605	\$555	\$50	8%	(a)
Medical Insurance	533	577	(44)	-8%	(b)
Social Security Taxes	348	309	39	11%	(a)
Workers Compensation Ins.	120	114	6	5%	(b)
Dental Insurance	29	27	1	5%	(b)
Life Insurance	7	6	0	3%	(b)
	<b>\$1,641</b>	<b>\$1,588</b>	<b>\$53</b>	<b>3%</b>	

<b>Rates Table:</b>		<b>Budget</b>
Pension		13.33%
Social Security		7.65%

*(a) Function of labor cost.*

*Includes pension per Actuarially Determined Employer Contribution (ADEC), \$1,728,700 and amortization of IBEW Pension back payment, \$87,041.*

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

**Net Income**  
**FY 2024 - October (\$000)**

		Current Month			Year - To - Date		
	Ref	Budget	Actual	Variance	Budget	Actual	Variance
<b>Operating Revenues</b>							
Sales to Customers	p.3	4,001	4,271	270	18,602	18,881	279
Other Revenues		292	238	(54)	1,233	823	(410) (a)
Power Supply Revenues	p.6	0	0	0	2,440	2,351	(89)
Total Operating Revenues		<u>4,293</u>	<u>4,509</u>	<u>216</u>	<u>22,275</u>	<u>22,055</u>	<u>(220)</u>
<b>Operating Expenses</b>							
Fuel	p.6	572	114	458	3,006	2,233	773
Purchased Power	p.6	1,671	1,548	122	6,121	5,446	675
Transmission	p.6	632	809	(177)	3,019	2,976	43
Operating and Maintenance	p.12	1,831	1,808	23	7,482	7,244	238
Depreciation & Amortization		552	541	11	2,210	2,127	82
Revenue Taxes		43	44	(2)	210	208	2
Property Taxes Winooski One		42	42	(0)	168	169	(1)
Payment In Lieu of Taxes		188	193	(5)	752	769	(17) (b)
Total Operating Expenses		<u>5,531</u>	<u>5,100</u>	<u>430</u>	<u>22,968</u>	<u>21,173</u>	<u>1,795</u>
<b>Other Income and Deductions</b>							
Interest/Investment Income		44	56	12	169	199	30
Dividends		367	367	(0)	1,467	1,531	64
Customer Contributions/Grant Proceeds		76	21	(55)	127	601	474 (c)
Gain/(Loss) on Disp of Plant		0	0	0	(135)	(0)	135 (d)
Other		(2)	66	68	17	149	132 (e)
Total Other Income & Deductions		<u>484</u>	<u>510</u>	<u>25</u>	<u>1,645</u>	<u>2,479</u>	<u>835</u>
<b>Interest Expense</b>		267	299	(32)	1,069	1,164	(94) (g)
<b>Net Income</b>		<u>(1,021)</u>	<u>(380)</u>	<u>641</u>	<u>(118)</u>	<u>2,197</u>	<u>2,315</u>

**Current Month:**

- (a) Energy Efficiency Program cost reimbursement was lower than planned, \$51,700.  
(b) Actual Payment in Lieu of Tax (PILOT) is higher than budget assumption by \$26,960 for the year.  
(c) Actual includes September true-up.  
(d) Budget assumed customer contributions for Champlain Parkway, \$45,800 and overhead/underground billable, \$30,000. Actual includes billable for overhead projects, \$18,200.

**Year - To - Date:**

- (a) Energy Efficiency Program cost reimbursement was higher than planned, \$392,000.  
(b) See current month.  
(c) Budget assumed customer contributions for Champlain Parkway, \$57,200 and overhead/underground billable, \$70,000. Actual includes billable for overhead/underground projects, \$30,000 and grant proceeds for EV bucket truck, \$560,000.  
(d) Timing. Budgeted in August, December, February & June.  
(e) Timing of jobbing unfavorable, \$75,000. Offset by unrealized gain on investment, \$217,100.

	\$000			
	Full Year Budget	Budget	October YTD Actual	Variance
<b>McNeil (BED 50% Share)</b>				
Turbine Control System Upgrade/Insurance (314)	250	125	2	123
Routine Station Improvements <sup>1</sup>	186	74	27	47
Wood Handling Front End Loader (316)	183	183	175	8
Fuel Oil Tank Replacement Containment Area (312)	125			0
ESP Transformer Rectifier Controls Upgrade (312)	125	25	0	25
B-Belt Replacement	72		0	(0)
Freight Elevator Geared Equip & Controls (311)	40			0
Replacement Rail Cars (392)	38	38		38
Polisher Beads (312)	30	30		30
Augers Replaced (312)	30			0
McNeil Replacement Pickup Truck (all electric)	28			0
Cooling Tower Timber Replacement (314)	25			0
Safety Valve Replacements (312)	25	7		7
Belt Fire Suppression/Insurance (312)	20			0
Bottom Ash Conveyor	17			0
Ash Conveyor Rebuild (312)	12			0
Air Dryer (312)	12			0
Analyzer Upgrades for Chemical Treatment (312)	9			0
Station Tools & Tool Boxes (312)	7	4		4
End of Life Handheld Radio Replacement (316)	7	4		4
Continuous Emissions Monitoring Repl/Upgrade			61	(61) (a)
Other	20	6	3	3 (b)
Total McNeil Plant	1,262	495	269	226
 (a) Prior year project.				
(b) Budget includes rigging equipment, gas burner upgrade, chemical pump replacement, energy efficiency improvements, furniture & equipment cameras.				
<b>Hydro Production</b>	318	280	92	188
<b>Gas Turbine</b>	458	257	112	145
Total Production Plant	2,038	1,032	473	559
<b>Other</b>				
Direct Current Fast Charger (new locations)	281	98	1	97
EV Charger Installation (Level 2)	108	32		32
Policy & Planning Research & Dev	26	10	1	9
Public Level 2 EV Charges			12	(12)
Distributed Energy Resources			7	(7)
Total Other	415	141	21	120

	\$000			
	Full Year Budget	Budget	October YTD Actual	Variance
<b>Distribution Plant-General</b>				
<b>Aerial</b>				
Pole Inspection & Replacement	161	56	8	49
Pole P2296 Replacement Flynn Avenue	57	29	0	28
Rebuild Austin Dr	68	68	23	44
Replace 2L5 Circuit from P2349-913S	935			0
Rock Point Bridge Guy Wire Relocation (Rock Pt)	40	20		20
Sunset Cliff Rebuild	53	53	9	44
Total Aerial	1,314	226	40	186
<b>Underground</b>				
Install Cables on St Paul St (Bank to Cherry)	86			0
Main St Great Streets	0		4	(4)
Rebuild Ethan Allen Pkwy to 3 Phase	683	580	525	56
Rebuild Summit Ridge	332	199 #	0	199
Replace 2L5 Circuit from 913S to UH #248	812			0
Replace 322/323/324S (Main St and Univ Hts)	239		1	(1)
Switch 305S/325S/326S (Main St Reservoir)	252			0
Switch 709S/710S (Battery St - College & Main)	57			0
Switch 817S/912S/913S (Main St Reservoir)	147			0
Total Underground	2,607	779	531	249
<b>Customer Driven/City Projects</b>				
Champlain Parkway-Billable	269	67	322	(255)
Champlain Parkway (CAFC)	(229)	(57)		(57)
Main Street Great Streets			4	(4)
Total Underground	40	10	326	(316)
<b>Other</b>				
ADMS Phase 1-SCADA upgrade (Repl SCADA Sys)	724	29		29
Communication Equipment Emergency Repair	29	3	3	(0)
Distribution Transformers	631	284	9	274
SCADA Network Switches Replacement	107	5	8	(2)
SCADA Servers PC's and Monitors	229	169	1	168
SCADA Video Display	721		2	(2)
Other			10	(10)
Total Other	2,441	490	33	457
Total Distribution Plant-General	6,403	1,505	930	575

	\$000			
	Full Year Budget	Budget	October YTD Actual	Variance
<b>Distribution Plant - Blanket</b>				
Aerial	171	44	39	5
Aerial (CAFC)	(65)	(23)	(26)	4
Underground	371	144	92	52
Underground (CAFC)	(135)	(47)	(3)	(44)
Meters	105	25	57	(32)
Lighting	228	40	136	(96)
Tools & Equipment - Distribution/Technicians	37	7	11	(3)
Replaces Failed SCADA Field Equipment	23	1		1
Substation Maintenance	17	1		1
Gas Detectors	5			0
Pulling Rope Amsteel Blue	7	7	6	1
Total Distribution Plant - Blanket	763	199	311	(112)
Total Distribution Plant	7,166	1,704	1,241	463
<b>General Plant</b>				
Computer Equipment/Software	902	246	112	134 (a)
Vehicle Replacement	259		742	(742) (b)
EV Grant			(560)	560 (b)
Buildings & Grounds	176	148	29	118 (c)
AED Purchase	7	7		7
Total General Plant	1,343	401	322	78

(a) Budget includes replacement iPads for line crew and Pole Mount Routers. Actual includes IT Forward, \$93,4000 and other projects (AS400/CIS upgrade & Pole Mount Routers).

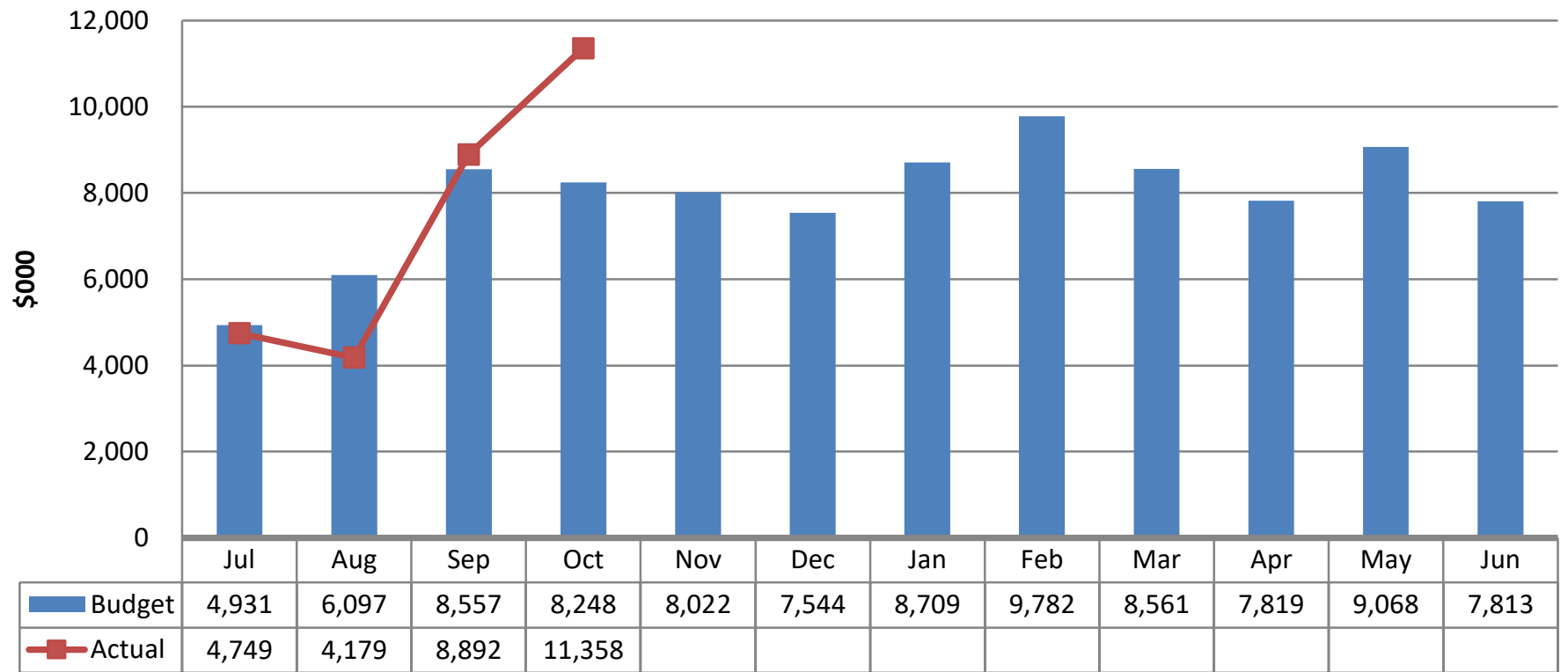
(b) Timing; full year budget includes All Electric Bucket Truck net of grant and two all electric pickup trucks.

(c) Timing; budget includes new gate motor controller, AC replacement GT Computer rooms and Dispatch Center.

<b>Sub-Total Plant</b>	\$10,962	\$3,278	\$2,058	\$1,220
Add: CAFC* reclass to "Other Income"	428	127	589	(462)
<b>Total Plant</b>	\$11,391	\$3,405	\$2,647	\$758

\* Customer Advances (Contributions) for Construction.

## Operating Cash - FY 2024 Monthly Ending Balance







## MEMORANDUM

To: Board of Electric Commissioners

From: Rodney Dollar

Date: December 13, 2023

Subject: Calendar Year 2024 Draft Budget

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Please find a draft of the 2024 calendar year (CY) budget for McNeil Station. This budget item will be on the agenda for the December Commission meeting for discussion and approval. Also included for your information are the following:

1. Capital budget versus actual figures for the past (2) years, and January – September 2023.
2. Comparison of budget versus actual figures for operation, maintenance, and administration and general expenses for calendar years 2021-2022, and January – September 2023.
3. Budget Narrative (below)

The draft CY24 expense budget is \$30,732,680 as compared to \$33,878,365 for the CY23 budget. The CY24 budget is approximately \$3,145,685 less than the approved CY23 budget. The decrease can be explained by a decrease in the fuel expense budget of \$2,925,940. In CY23 the wood tons were budgeted for 397,691 tons and the price per ton was \$40.00/ton for an annual average, in CY24 we have budgeted 397,700 tons with a price per ton annual average of \$31.85/ton to accommodate the current wood chip market. The remaining expense budgeted decreased \$219,745 due to the fiscal year budget cuts.

The capital budget for CY24 is \$2,799,727 as compared to CY23 which was \$2,843,556, a difference of \$43,829. The main reason for the decrease of our capital budget is due to less capital projects in the previous fiscal year budget.

Please do not hesitate to contact me for any questions. I can be reached at 1-802-865-7446 or by email at [rdollar@burlingtonelectric.com](mailto:rdollar@burlingtonelectric.com)

**Burlington Electric Department**  
585 Pine Street Burlington, VT 05401  
[burlingtonelectric.com](http://burlingtonelectric.com)

**Phone 802.658.0300**

MCNEIL STATION CALENDAR YEAR 2024 BUDGET **PROPOSED**

ACCT	TITLE	Approved CY 2024 Budget	<b>PROPOSED</b> CY 2024 Budget	Budgeted CY 2023
<b>OPERATIONS</b>				
500	SUPERVISION & ENGINEERING		\$573,048	\$667,877
501	FUEL EXPENSE		\$19,212,830	\$22,138,770
502	STEAM EXPENSE		\$2,154,073	\$2,261,028
505	ELECTRIC EXPENSE		\$894,131	\$870,923
506	MISCELLANEOUS STEAM EXPENSE		\$719,697	\$871,317
<b>MAINTENANCE</b>				
510	SUPERVISION & ENGINEERING		\$161,885	\$92,720
511	STRUCTURE		\$86,640	\$116,760
512	BOILER PLANT		\$1,055,304	\$1,368,167
513	ELECTRIC PLANT		\$958,959	\$800,362
514	ROUTINE IMPROVEMENTS		\$50,908	\$52,145
TOTAL GENERATION EXPENSE		\$0	\$25,867,475	\$29,240,069
<b>TRANSMISSION EXPENSE</b>				
556	SYSTEM CONTROL & LOAD DISPATCHING		\$113,566	\$86,180
562	OPERATIONS - STATION EQUIPMENT		\$32,400	\$30,800
567	OPERATIONS - RENT		\$20,218	\$20,218
570	MAINTENANCE - STATION EQUIPMENT		\$6,000	\$6,000
TOTAL TRANSMISSION EXPENSE		\$0	\$172,184	\$143,198
<b>ADMINISTRATIVE &amp; GENERAL EXPENSES</b>				
909	INFORMATIONAL ADVERTISING		\$81,974	\$94,771
920	SALARIES (ALLOCATIONS TO MCNEIL)		\$913,150	\$767,351
921	<b>OFFICE SUPPLIES AND EXPENSES</b>			
	ADMINISTRATIVE FEE (ALLOCATIONS TO MCNEIL)		\$124,221	\$144,975
	ADMINISTRATIVE FEE A&G		\$45,606	\$43,122
	TOTAL ACCOUNT 921	\$0	\$169,827	\$188,097

923	OUTSIDE SERVICES			
	LEGAL		\$3,238	\$14,496
	INDIRECT COST ALLOCATION		\$144,618	\$106,164
	HUMAN RESOURCE ALLOCATION		\$61,380	\$60,252
	CONSULTANTS		\$46,850	\$9,898
	FINANCE AUDIT		\$33,325	\$28,000
	TOTAL ACCOUNT 923	\$0	\$289,411	\$218,810
924	PROPERTY INSURANCE		\$596,942	\$525,218
925	LIABILITY INSURANCE (ANNUAL)		\$111,378	\$97,168
925	INJURIES & DAMAGES		\$111,000	\$111,000
925	SAFETY/ENVIRONMENTAL COMPLIANCE		\$154,322	\$144,479
	TOTAL ACCOUNT 925		\$376,700	\$352,647
926	EMP. BENEFITS - UNALLOCATED		\$2,898	\$9,600
930	MISCELLANEOUS GENERAL EXPENSE		\$32,419	\$106,604
935	MAINTENANCE OF GENERAL PLANT		\$19,700	\$22,000
408	TAXES		\$1,710,000	\$1,710,000
411	GAIN/LOSS ON DISPOSITION		\$300,000	\$300,000
411	LOSS ON DISPOSAL OF INVENTORY		\$200,000	\$200,000
	TOTAL A & G EXPENSES		\$4,693,021	\$4,495,098
	<b>TOTAL EXPENSES</b>	\$0	\$30,732,680	\$33,878,365
	<b>Total expenses minus fuel</b>	\$0	\$11,519,850	\$11,739,595

MCNEIL STATION CALENDAR YEAR 2024 BUDGET

MHW generation (1)		262,701		266,094	
ACCT	TITLE	Approved CY 2024 Budget	CY 2024 Budget	CY 2024 \$/MWH	Budgeted CY 2023
OPERATING REVENUES					
	ISO-NE Energy		\$19,738,620	\$75	\$31,003,093
	ISO-NE Capacity		\$1,422,720	\$5	\$1,716,000
	RECs (2)		\$8,591,597	\$33	\$9,446,337
	TOTAL OPERATING REVENUES	\$0	\$29,752,937	\$113	\$42,165,430
OPERATING EXPENSES					
OPERATIONS					
500	SUPERVISION & ENGINEERING		\$573,048		\$667,877
501	FUEL EXPENSE		\$19,212,830		\$22,138,770
502	STEAM EXPENSE		\$2,154,073		\$2,261,028
505	ELECTRIC EXPENSE		\$894,131		\$870,923
506	MISCELLANEOUS STEAM EXPENSE		\$719,697		\$871,317
MAINTENANCE					
510	SUPERVISION & ENGINEERING		\$161,885		\$92,720
511	STRUCTURE		\$86,640		\$116,760
512	BOILER PLANT		\$1,055,304		\$1,368,167
513	ELECTRIC PLANT		\$958,959		\$800,362
514	ROUTINE IMPROVEMENTS		\$50,908		\$52,145
	TOTAL GENERATION EXPENSE	\$0	\$25,867,475	\$98	\$29,240,069
TRANSMISSION EXPENSE					
556	SYSTEM CONTROL & LOAD DISPATCHING		\$113,566		\$86,180
562	OPERATIONS - STATION EQUIPMENT		\$32,400		\$30,800
567	OPERATIONS - RENT		\$20,218		\$20,218
570	MAINTENANCE - STATION EQUIPMENT		\$6,000		\$6,000
	TOTAL TRANSMISSION EXPENSE	\$0	\$172,184	\$1	\$143,198
ADMINISTRATIVE & GENERAL EXPENSES					
909	INFORMATIONAL ADVERTISING		\$81,974		\$94,771
920	SALARIES (ALLOCATIONS TO MCNEIL)		\$913,150		\$767,351
921	OFFICE SUPPLIES AND EXPENSES				
	ADMINISTRATIVE EXPENSE		\$124,221		\$144,975
	ADMINISTRATIVE FEE A&G ALLOCATION		\$45,606		\$43,122
	TOTAL ACCOUNT 921	\$0	\$169,827		\$188,097
923	OUTSIDE SERVICES				
	LEGAL		\$3,238		\$14,496
	INDIRECT COST ALLOCATION		\$144,618		\$106,164
	HUMAN RESOURCE ALLOCATION		\$61,380		\$60,252
	CONSULTANTS		\$46,850		\$9,898
	FINANCE AUDIT		\$33,325		\$28,000
	TOTAL ACCOUNT 923	\$0	\$289,411		\$218,810
924	PROPERTY INSURANCE		\$596,942		\$525,218
925	LIABILITY INSURANCE (ANNUAL)		\$111,378		\$97,168
925	INJURIES & DAMAGES		\$111,000		\$111,000
925	SAFETY/ENVIRONMENTAL COMPLIANCE		\$154,322		\$144,479
	TOTAL ACCOUNT 925	\$0	\$376,700		\$352,647
926	EMP. BENEFITS - UNALLOCATED		\$2,898		\$9,600
930	MISCELLANEOUS GENERAL EXPENSE		\$32,419		\$106,604
935	MAINTENANCE OF GENERAL PLANT		\$19,700		\$22,000
408	TAXES		\$1,710,000		\$1,710,000
	TOTAL ADMIN & GENERAL EXPENSE	\$0	\$4,193,021	\$16	\$3,995,098
	TOTAL OPERATING EXPENSES	\$0	\$30,232,680	\$115	\$33,378,365
NET OPERATING INCOME (LOSS) BEFORE DEPRE		\$0	-\$479,743	-\$2	\$8,787,065
OTHER INCOME & DEDUCTIONS					
411	GAIN/LOSS ON DISPOSITION		\$300,000		\$300,000
411	LOSS ON DISPOSAL OF INVENTORY		\$200,000		\$200,000
	TOTAL OTHER INCOME & DEDUCTIONS	\$0	\$500,000	\$2	\$500,000
NET INCOME (LOSS) BEFORE					
INTEREST & DEPRECIATION EXPENSE (3)		\$0	-\$979,743	-\$4	\$8,287,065

(1) Production assumes a return to more reliable wood supply.

(2) BED does not have complete information on Joint Owners REC sales. Total REC sales assumed to be at same average revenue/REC as BED.

(3) Each owner records depreciation expense based on the total costs of its investment in the Station, its depreciation method, and its useful life for rate-making purposes.

**MCNEIL STATION CALENDAR YEAR 2024 BUDGET- FUEL**

<b>BREAKDOWN OF ACCOUNT 501 (FUEL EXPENSE)</b>		<b>CY 2024 Fuel Budget</b>	<b>Budgeted CY 2023</b>
<b>OIL</b>			
OIL USAGE FOR START-UP - 1,080 GALLONS @ \$4.50 & 5.00/GALLON		\$ 4,995	\$ 4,050
OIL USAGE FOR NOX REDUCTION - 504 GALLONS @ \$4.50 & 5.00/GALLON		\$ 2,394	\$ 1,890
<b>Gas</b>			
GAS FOR INTERRUPTIBLE (STARTUP) - 10,000 MCF @ \$8.75 & 9.00 / MCF		\$ 88,754	\$ 138,750
GAS MCF FIRM - 2721 MCF @ \$8.75/MCF and 9.00/MCF		\$ 24,149	\$ 38,850
GAS USAGE FOR NOX REDUCTION - 500 MCF @ \$8.50/MCF and 9.00/MCF		\$ 4,438	\$ 18,426
VGS METER CHARGE		\$ 4,200	\$ 4,200
<b>WOOD</b>			
WOOD USAGE IS 397,700 TONS @ \$31.70/TON and \$32.00/Ton		\$ 12,667,090	\$ 15,907,658
WOOD - LABOR - YARDWORKER		\$ 123,386	\$ 532,510
WOOD - LABOR & EXPENSES - FORESTERS		\$ 685,954	\$ 614,783
WOOD - WASTE WOOD YARD LABOR		\$ 548,922	\$ 110,149
<b>WOOD - RAILROAD</b>			
RAIL COSTS FOR 175 (rounded) TRAINS @ \$10,500/TRAIN (January - Sept)		\$ 1,746,346	\$ 1,614,022
RAIL COSTS FOR 55 (rounded) TRAINS @ \$12,000/TRAIN (Oct - December)		\$ 626,374	\$ 813,271
TOTAL WOOD - RAILROAD TRAIN COST FOR CY 2021		\$2,372,720	\$2,427,293
RAILROAD FUEL EQUALIZATION ADJUSTMENT		\$ 237,272	\$ 242,729
THREE WEATHER RELATED UNLOADING DELAYS @ \$2,750/TRAIN		\$ 8,250	\$ 8,250
ADDITIONAL SNOW TRAINS 2 TRAINS @ 10,500 & 1 TRAIN @ 10,233		\$ 31,233	\$ 30,699
<b>WOOD - SWANTON YARD</b>			
SWANTON COSTS ARE 298,269 TONS @ \$3.48 and 3.55 / TON		\$ 1,048,497	\$ 1,027,598
SWANTON YARD EQUALIZATION ADJUSTMENT		\$ 104,850	\$ 102,760
RAILCAR UNLOADING CONTRACT (LABOR)		\$ 23,040	\$ 23,040
<b>ASH HANDLING</b>			
LOADER FUEL MCNEIL YARD 90,000 GALLONS @ \$4.50/GALLON		\$ 405,000	\$ 145,133
LOADER FUEL WASTE WOOD YARD 2,626 GALLONS @ \$4.50/GALLON		\$ 11,817	\$ 5,022
EMERGENCY LOADER RENTAL		\$ 8,000	\$ 3,000
RAILCAR MAINTENANCE		\$ 225,000	\$ 210,000
LOADER MAINTENANCE - MCNEIL YARD		\$ 198,500	\$ 173,300
LOADER MAINTENANCE - WASTE WOOD YARD (CONSUMABLES)		\$ 54,950	\$ 51,600
GRINDING COST FOR WASTE WOOD		\$ 152,500	\$ 152,500
RAILROAD - NERC INDUSTRIAL TRACK AGREEMENT		\$ 11,000	\$ 11,000
RAILROAD TRACK ENGINEER INSPECTION		\$ 3,000	\$ 4,000
RAILROAD TRACK MAINTENANCE		\$ 30,000	\$ 50,000
RAILROAD SWITCHING @110/SWITCH/14 SWITCHES PER MONTH		\$ 18,480	\$ 18,480
ROUTINE CHARGES - RAILCARS/SCALES/VEHICLES ETC		\$ 48,000	\$ 48,000
CSWD ANNUAL PAYMENT FOR OPERATION OF THE WASTE WOOD YARD		\$ (60,000)	\$ (60,000)
Fuel Account Sheet			
<b>TOTAL 501 CHARGES</b>		<b>\$19,217,871</b>	<b>\$22,138,770</b>

## MCNEIL STATION CALENDAR YEAR 2024 BUDGET - CAPITAL

FY2024  
FY 2025

ACCT.	TITLE	CY 2024 Capital Budget	Budgeted CY2023
311	<b>STRUCTURES &amp; IMPROVEMENTS</b>		
	ROUTINE STATION IMPROVEMENTS	\$ 40,000	
	ENERGY EFFICIENCY IMPROVEMENTS	\$ 2,477	
	ROUTINE STATION IMPROVEMENTS	\$ 40,000	
	ENERGY EFFICIENCY IMPROVEMENTS	\$ 2,500	
	PARIMETER FENCE UPGRADES	\$ 10,000	
	FREIGHT ELEVATOR GEARED EQUIPMENT AND CONTROLS	\$ 360,000	
	TOTAL ACCOUNT 311	\$ 454,977	\$ 175,000
312	<b>BOILER PLANT EQUIPMENT</b>		
	ROUTINE STATION IMPROVEMENTS / BOILER	\$ 45,000	
	STATION TOOLS AND TOOL BOXES	\$ 7,495	
	SAFETY VALVE REPLACEMENTS	\$ 24,935	
	ANALYZER UPGRADES FOR CHEMICAL TREATMENT	\$ 17,456	
	CHEMICAL PUMP REPLACEMENT / UPGRADE	\$ 9,972	
	AUGERS REPLACED	\$ 59,973	
	GAS BURNER UPGRADE	\$ 9,977	
	BOTTOM ASH CONVEYOR	\$ 34,991	
	ASH CONVEYOR REBUILD	\$ 24,992	
	B-BELT BELT REPLACEMENT	\$ 144,993	
	ESP TRANSFORMER RECTIFIER CONTROLS UPGRADE	\$ 249,721	
	FUEL OIL TANK REPLACEMENT CONTAINMENT AREA	\$ 249,998	
	BELT FIRE SUPPRESSION / INSURANCE (IR CAMERAS)	\$ 39,932	
	AIR DRYER	\$ 24,971	
	ROUTINE STATION IMPROVEMENTS / BOILER	\$ 45,000	
	STATION TOOLS AND TOOL BOXES	\$ 7,500	
	CATALYST REPLACEMENT FOR NOx SYSTEM (2022 TESTING NEARING EOL)	\$ 950,000	
	REPLACEMENT RAILCARS (CHG FROM 392)	\$ 50,000	
	TOTAL ACCOUNT 312	\$ 1,996,906	\$ 1,014,290
314	<b>TURBINE GENERATOR</b>		
	ROUTINE STATION IMPROVEMENTS / TURBINE	\$ 45,000	
	COOLING TOWER POST FILL REPLACEMENT TIMBER UPGRADE	\$ 49,988	
	ROUTINE STATION IMPROVEMENTS / STRUCTURES & IMPROVEMENTS	\$ 45,000	
	TURBINE EXTRACTION VALVE ACTUATORS	\$ 40,000	
	TOTAL ACCOUNT 314	\$ 179,988	\$ 687,963
315	<b>ACCESSORY ELECTRIC EQUIPMENT</b>		
	ROUTINE STATION IMPROVEMENTS / ACCESSORY EQUIPMENT	\$ 45,000	
	ROUTINE STATION IMPROVEMENTS / ACCESSORY EQUIPMENT	\$ 45,000	
	TOTAL ACCOUNT 315	\$ 90,000	\$ 129,803
316	<b>PLANT AND EQUIPMENT</b>		
	ROUTINE STATION IMPROVEMENTS / PLANT EQUIPMENT	\$ 9,860	
	RIGGING EQUIPMENT	\$ 4,996	
	ROUTINE STATION IMPROVEMENTS / ACCESSORY EQUIPMENT	\$ 10,000	
	RIGGING EQUIPMENT	\$ 5,000	
	PORTABLE RADIO UPGRADES	\$ 2,000	
	TOTAL ACCOUNT 316	\$ 31,856	\$ 714,500
362	<b>STATION EQUIPMENT</b>		
	TOTAL ACCOUNT 362	\$ -	\$ 0
391	<b>OFFICE FURNITURE &amp; EQUIPMENT</b>		
	ROUTINE STATION IMPROVEMENTS / PLANT EQUIPMENT	\$ 2,500	
	ROUTINE STATION IMPROVEMENTS / PLANT EQUIPMENT	\$ 2,500	
	TOTAL ACCOUNT 391	\$ 5,000	\$ 7,000
392	<b>TRANSPORTATION EQUIPMENT</b>		
	FORESTRY VEHICLE	\$ 40,000	
	TOTAL ACCOUNT 392	\$ 40,000	\$ 113,000
398	<b>MISCELLANEOUS EQUIPMENT</b>		
	APPLIANCES FARMHOUSE	\$ 1,000	
	TOTAL ACCOUNT 398	\$ 1,000	\$ 2,000
	<b>CAPITAL BUDGET TOTAL</b>	<b>\$ 2,799,727</b>	<b>\$ 2,843,556</b>

ACCT.		CY2021	CY 2021	CY2022	CY 2022	CY2023	CY 2023	
OPERATIONS		Budget	ACTUAL	Budget	ACTUAL	Budget	ACTUAL AS OF	CY2024
							September	Budget
500	SUPERVISION & ENGINEERING	563,457	487,403	631,822	634,218	667,877	350,004	573,048
501	FUEL EXPENSE	16,801,612	15,486,358	17,386,424	16,014,868	22,138,770	12,109,989	19,212,830
502	STEAM EXPENSE	2,034,169	1,706,317	2,120,327	1,951,295	2,261,028	1,549,410	2,154,073
505	ELECTRIC EXPENSE	863,512	674,523	841,053	712,601	870,923	583,942	894,131
506	MISCELLANEOUS STEAM EXPENSE	864,975	596,583	876,357	751,799	871,317	486,135	719,697
MAINTENANCE								
510	SUPERVISION & ENGINEERING	108,445	123,408	147,718	146,120	92,720	115,277	161,885
511	STRUCTURE	108,982	51,785	111,320	96,063	116,760	34,627	86,640
512	BOILER PLANT	1,129,374	523,530	1,190,871	1,289,169	1,368,167	870,476	1,055,304
513	ELECTRIC PLANT	678,758	654,228	750,007	689,000	800,362	397,642	958,959
514	ROUTINE IMPROVEMENTS	54,024	29,244	49,863	24,437	52,145	44,476	50,908
TOTAL GENERATION EXPENSES		23,207,308	20,333,379	24,105,762	22,309,570	29,240,069	16,541,978	25,867,475
556	SYSTEM CONTROL & LOAD DISPATCHING	57,876	47,388	59,496	48,558	86,180	34,686	113,566
562	OPERATIONS STATION EQUIPMENT	30,800	25,260	30,800	22,869	30,800	1,051	32,400
567	OPERATIONS - RENT	11,636	24,432	40,200	18,555	20,218	14,911	20,218
570	MAINTENANCE - STATION EQUIP.	6,000	0	6,000	0	6,000	0	6,000
TOTAL TRANSMISSION EXPENSE		106,312	97,080	136,496	89,982	143,198	50,648	172,184
ADMINISTRATIVE & GENERAL EXPENSE								
909	INFORMATIONAL ADVERTISING	70,431	62,180	74,300	66,476	94,771	54,929	81,974
920	SALARIES	653,573	543,195	759,699	637,794	767,351	492,828	913,150
921	ADMINISTRATIVE FEE	107,086	38,623	105,475	68,688	144,975	57,904	124,221
921	ADMINISTRATIVE FEE (A&G & ALLOC)	39,000	37,806	48,468	43,548	43,122	32,253	45,606
923	OUTSIDE SERVICES	171,340	185,083	162,804	164,074	218,810	158,081	289,411
924	PROPERTY INSURANCE (ANNUAL)	490,746	511,901	530,503	532,422	525,218	416,994	596,942
TOTAL ACCOUNT 909 - 924		1,532,176	1,378,788	1,681,249	1,513,002	1,794,247	1,212,989	2,051,304
925	LIABILITY INSURANCE (ANNUAL)	93,660	40,527	87,766	69,050	97,168	46,390	111,378
925	SAFETY	95,457	85,464	116,064	99,220	144,479	95,439	154,322
925	INJURIES & DAMAGES	96,000	88,119	102,000	100,596	111,000	144,266	111,000
TOTAL ACCOUNT 925		285,117	214,110	305,830	268,866	352,647	286,095	376,700
926	EMP. BENEFITS - UNALLOCATED	624	25,049	5,100	107,347	9,600	(8,737)	2,898
930	MISCELLANEOUS GENERAL EXPENSE	100,326	21,997	65,140	20,536	106,604	22,029	32,419
935	MAINT. OF GENERAL PLANT	18,900	8,879	22,000	6,025	22,000	2,259	19,700
TOTAL A&G EXPENSES		1,937,143	1,648,823	2,079,319	1,915,776	2,285,098	1,514,635	2,483,021
408	TAXES	1,515,000	1,561,577	1,710,000	1,609,255	1,710,000	1,205,444	1,710,000
411	GAIN/LOSS ON DISPOS							

**MCNEIL STATION CAPITAL BUDGET AMOUNTS AND ACTUAL SPENT  
FOR CALENDAR YEARS 2021 - 2022 AND JANUARY- SEPTEMBER 2023**

Acct	DESCRIPTION	2021	2021	2022	2022	2023	2023	2024
		BUDGET		BUDGET		BUDGET	ACTUAL AS OF	BUDGET
		AMOUT	ACTUAL	AMOUT	ACTUAL	AMOUT	SEPTEMBER	AMOUT
303	Software and Licenses	\$0	\$0	\$0	\$0	\$0	\$0	\$0
311	Structures & Improvements	\$439,500	\$30,261	\$221,970	\$64,134	\$175,000	\$126,262	\$454,977
312	Boiler Plant Equipment	\$695,000	\$546,433	\$1,021,665	\$1,780,532	\$1,014,290	\$1,076,232	\$1,996,906
314	Turbine Generator	\$165,000	\$116,013	\$454,200	\$373,161	\$687,963	\$112,304	\$179,988
315	Accessory Electric Equipment	\$149,828	\$9,434	\$128,600	\$0	\$129,803	\$256,752	\$90,000
316	Miscellaneous Plant Equipment	\$89,500	\$0	\$34,456	\$21,940	\$714,500	\$413,449	\$31,856
362	Station Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0
391	Office Furniture & Equipment	\$12,500	\$2,350	\$4,500	\$4,132	\$7,000	\$1,840	\$5,000
392	Transportation Equipment	\$0	\$0	\$188,000	\$0	\$113,000	\$0	\$40,000
398	Miscellaneous Equipment	\$1,000	\$5,180	\$8,000	\$0	\$2,000	\$3,971	\$1,000
	Total	\$1,552,328	\$709,670	\$2,061,391	\$2,243,900	\$2,843,556	\$1,990,809	\$2,799,727





## MEMORANDUM

To: Burlington Board of Electric Commissioners

From: Munir Kasti, Manager of Utility Services & Engineering  
Emily Stebbins-Wheelock, Manager of Strategy & Innovation

Date: December 13, 2023

Subject: Approval of vendor contract for ADMS software

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At the Board of Electric Commissioners' December 13, 2023 meeting, Burlington Electric Department (BED) will ask the Commission to vote to recommend that the City Council approve a Resolution authorizing BED to execute a series of agreements with BED's chosen vendor for Advanced Distribution Management System (ADMS) software, Survalent Technology Inc. ("Survalent"), to purchase and implement these systems over the next several fiscal years, subject to the inclusion of the planned purchases in BED's approved budget for each relevant fiscal year. In seeking this recommendation, BED culminates a rigorous procurement process for replacement of its supervisory control and data acquisition (SCADA) system. This memo describes the business need for this purchase, the vendor selection process BED followed, negotiated pricing, and the agreements BED would execute if so authorized by the City Council.

### Background

BED's current SCADA system provides real-time monitoring and control of the electric distribution system for BED System Operators. Many devices on the BED system are SCADA-controlled (e.g., switches). This allows our System Operators to control the electrical distribution system remotely without the need to dispatch line crews. BED's current SCADA system is 10+ years old, is considered past "end of life," and has limited vendor support until March 2024.

The new ADMS will have many of the same SCADA functions as the legacy system along with new enhancements of an Outage Management System (OMS) and Distribution Management System (DMS). The implementation of the ADMS will improve system reliability and outage communications with BED customers. The ADMS project will greatly increase infrastructure utilization, leveraging the existing 200+ SCADA-controlled distribution system devices and bringing together information from those field devices with data collected from the 21,000+ AMI meters throughout the city, Customer Information System, and Interactive Voice Response system to automatically locate and isolate outages and communicate proactively with customers. BED's customers affected by outages will be notified via e-mail, phone, and/or text-

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based alerts and a new online outage map will provide customers with outage locations and estimated restoration times. The ADMS project will also represent a significant investment in BED's workforce by providing our power system coordinators with a state-of-the art system that provides new capabilities and new opportunities for learning, training, and professional development.

BED issued a Request for Proposals (RFP) in April 2023. More than 15 BED employees from different organizational areas and disciplines, including Engineering, Grid Services, IT, Operations, Policy & Planning, and Customer Care engaged in the procurement process, which included vendor software demonstrations based on scenarios specific to BED's needs, reference checks with other utilities, and technical reviews.

On October 6, 2023, a cross-departmental team of BED Engineering, Grid Services, Operations, and IT staff recommended Survalent as the preferred vendor for the ADMS project, based on the following criteria:

- 10-year cost of ownership and value to our customers
- Ease of minor and major system upgrades
- Compatibility with BED's IT/OT staff skills
- Technical requirements
- Reference checks

Per the BED team's recommendation, BED notified Survalent of its tentative selection as our preferred vendor on October 12, 2023, subject to satisfactory negotiation on scope and price as well as needed approvals for this multi-year contract by the Electric Commission and City Council. BED began negotiating the Statement of Work (SOW), pricing, and contract language. The contract negotiation process has:

- Involved executive sponsorship, with the Manager of Utility Services & Engineering and Manager of Strategy & Innovation articulating the vision and mission of the project and reviewing and editing the SOW and contracts to gain a thorough understanding of the project's objectives, scope, expectations, and requirements. The Manager of Utility Services & Engineering and Manager of Strategy & Innovation have also led pricing negotiations.
- Included empowered decision-makers and internal subject matter experts, with business process owners and front-line staff engaged in reviewing the SOWs.
- Involved a dedicated project manager from BED's IT team.
- Ensured that payments for implementation services will be based on completion of work, per milestones defined in the SOW.

### **Agreements & Pricing**

BED and Survalent propose to execute three agreements that will govern the purchase, implementation, and support of the ADMS software as shown in the table below:

<b>Agreement</b>	<b>Purpose</b>	<b>Term</b>	<b>Payment Provisions</b>
License	Grants option to purchase and the right to use the software	Perpetual unless terminated	Upon execution of PO and completion of implementation milestones.
Sales/Services	Engage Survalent to perform services to install, configure, and train BED end-users on the software, as specified in the SOW	Expires upon completion of services per SOW.	Upon execution of PO and completion of implementation milestones.
Maintenance & Support	Engage Survalent to provide software support and maintenance (updates and upgrades), effective the date of software "go-live"	Auto-renews annually	Support and Maintenance services will be provided from go-live of the Software, and thereafter on an annual basis.

BED's Public Utility Commission counsel, Bill Ellis, will have reviewed all the above contracts prior to their submission to City Council, and all agreements will also be subject to review and approval by the City Attorney's Office.

Per the terms of the agreements, BED will purchase the software license and implementation services for each phase over the next several fiscal years at the prices shown in this document, subject to annual appropriation of sufficient funds in BED's approved budget for commitment under contract each fiscal year. BED would license and implement each phase by issuing to Survalent a purchase order at the fixed prices negotiated for each phase. By negotiating SOW, contract language, and pricing for SCADA, OMS, and DMS concurrently, BED was able to leverage its purchasing power and obtain more competitive pricing that is reduced overall from the RFP proposal. All payments for implementation services will be based on completion of work, per milestones defined in the SOW.

*License fees (capital expense)*

<b>Solution</b>	<b>License Fees</b>
<b>SCADA/ADMS Platform</b>	\$127,190
<b>GIS</b>	\$16,773
<b>DMS</b>	\$144,950
<b>OMS</b>	\$102,150
	<b>\$391,06</b>

*Implementation & integration services fees and travel (capital expense)*

<b>Solution</b>	<b>Implementation &amp; Integration</b>
<b>SCADA/ADMS Platform</b>	\$108,774
<b>GIS</b>	\$53,596
<b>DMS</b>	\$182,961
<b>OMS</b>	\$102,048
	<b>\$447,379</b>

*Maintenance & Support, and other annual fees (operating expense)*

<b>Solution</b>	<b>Maintenance &amp; Support</b>
<b>SCADA/ADMS Platform</b>	\$31,066
<b>GIS</b>	\$3,204
<b>DMS</b>	\$16,789
<b>OMS</b>	\$10,499
	<b>\$61,558</b>

Support and Maintenance services will be provided at go-live of each Software, and thereafter on an annual basis with an annual escalation no greater than the actual Consumer Price Index, Northeast Region, Urban Consumers, all-items.

**Provisional Timeline**

The preliminary schedule (which is subject to change by BED and contingent on Survalent performance acceptable to BED) for implementation start dates of the BED ADMS is as follows:

- FY24-FY25: Phase 1, SCADA
- FY25-FY26: Phases 2 and 3, OMS & DMS

BED has already included the applicable FY24 items above in its approved FY24 budget, and each subsequent fiscal year's implementation would be subject to annual appropriations.

**Requested Action by Board of Electric Commissioners**

BED requests that the Burlington Board of Electric Commissioners vote to recommend that the City Council approve a Resolution authorizing the General Manager of BED to execute with Survalent a Software License Agreement, a Sales/Implementation Services Agreement and a Support & Maintenance Agreement to purchase and receive associated implementation, support, and maintenance services for an Advanced Distribution Management system at fixed, not-to-exceed prices, subject to review and approval of the City Attorney's Office and subject to appropriations for each relevant fiscal year.

*Motion*

To recommend that the City Council approve a Resolution authorizing the General Manager of BED to execute with Survalent a Software License Agreement, a Sales/Implementation Services Agreement and a Support & Maintenance Agreement to purchase and receive associated implementation, support, and maintenance services for an Advanced Distribution Management System at fixed, not-to-exceed prices, subject to review and approval of the City Attorney's Office and subject to appropriations for each relevant fiscal year.