

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: 245 442 970 050#

AGENDA
Regular Meeting of the Board of Electric Commissioners
Wednesday, January 10, 2024 – 5:30 p.m.

- | | |
|---|----------------|
| 1. Agenda | 5:30 (5 min.) |
| 2. Minutes of the December 13, 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: November FY24 (Discussion): (E. Stebbins-Wheelock) | 6:00 (10 min.) |
| 7. Miscellaneous Fee (Discussion): (E. Stebbins-Wheelock) | 6:10 (15 min.) |
| 8. Commissioners' Check-In | 6:25 (5 min.) |

Attest:



Laurie Lemieux, Board Clerk

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

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 to receive a link to the meeting, or call (802) 489-6254, Conference ID: 564 191 443#

TABLE OF CONTENTS
(for 01/10/2024 meeting)

***** FYI *****

- Minutes of the December 13, 2023 Meeting
- December Monthly Report
- Dashboard
- November FY24 Financial Report

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: January 5, 2024
Subject: **December 2023 Highlights of Department Activities**

General Manager

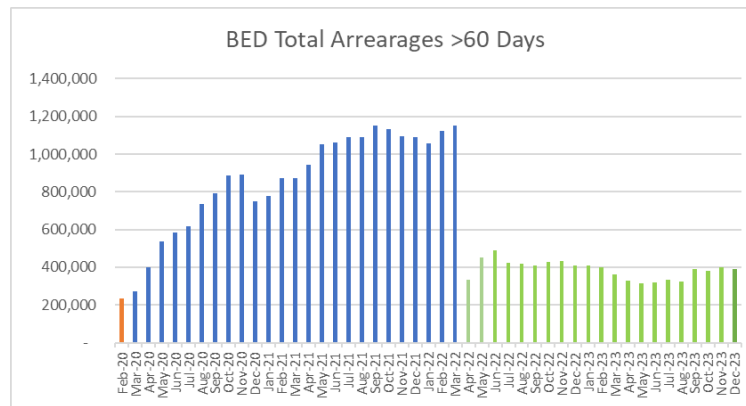
- **Legislative Session** – BED was part of a legislative work group that crafted pieces of consensus for renewable energy standard updates in 2024. We expect testimony in Committee before mid-January, and plan to outline our position further.
- **2024 Incentives** – BED is waiting on a proposal for decision on our Act 44 programs prior to changing any incentives in 2024. Hoping to update customer incentives by Spring at the latest.
- **Credit Line Increase** – The credit line increase charter change was unanimously approved by Board of Finance and City Council and will be part of several public hearings prior to being placed on the Town Meeting Day ballot. BED will work to create an updated term for the line renewal that better fits credit rating metric criteria.
- **Carbon Ballot Item** – Subsequent to enactment of the carbon fee ordinance, Councilor Bergman brought a proposal to place a new question on the Town Meeting Day ballot that could immediately impact the just passed ordinance which focuses on new construction and large existing buildings over 50,000 sq ft. The new ballot question could change compliance options, add buildings as small as 25,000 sq ft, and increase the carbon fee substantially. BED has raised concerns about this, as has UVM, UVM Medical Center, and Burlington Business Association. UVM Medical Center sent a note to the Council stating it is pausing all district energy work with BED and the City while this is pending, given its potential to impact their work in Burlington. The TEUC Committee held a hearing on it in December and has another meeting on it Jan. 9th. The Full Council could consider it as early as Jan. 16th.
- **F150 Lightning** – BED has its first F150 Lightning in its fleet fully operating and was featured on our social media this month.
- **EAP Rate** – Following Commission approval in December, BED is bringing the update to the Energy Assistance Program rate to Board of Finance 1/8 and City Council 1/16.
- **Moody's Rating** – Moody's in December affirmed BED's A3 rating with a stable outlook.

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 2023 rate case implementation and investigation.
- Continued sponsorship of IT Forward implementations.

Finance & Billing

- Moody's issued credit opinion affirming BED's A3 rating with a stable outlook.
- Responded to annual Moody's data request and reviewed draft Moody's rating report.
- Filed continuing disclosure for FY 2023.
- Continued work on updating cost allocations for miscellaneous service fees.
- Continued discussions with VELCO and fellow owners regarding projected VELCO capital spending, debt issuances, and equity calls.
- Prepared FY25 budget development guidelines and schedule.
- Calendar year-end closing and reporting.
- Updated fleet capital plan in coordination with Distribution, Forestry, and Purchasing.
- 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.
- Monitoring receivables in response to COVID19: as of December 31, 2023, BED's total non-current receivables had increased \$23,638 or 3.5% compared to the end of November 2023. Arrearages >60 days were \$392,196.



Information Services

- Survalent ADMS project IT architecture design and planning underway.
- MDMS Phase 2 work continues; expect project completion in Q1 2024.
- Project management team continues coordination of work on new dispatch room; working with several contractors to finalize construction/electrical/data work. Target for completing all major construction is March 2024.
- CIS project team released RFP on December 18th. We will be hosting a vendor Q&A session on January 11th with proposals due on February 2, 2024.
- Ongoing phishing and security testing of our users.
- Submitted a proposal to APPA for potential inclusion in their larger DOE cybersecurity grant application.
- Migration of AMI databases (test and production) to new server hardware.

Policy & Planning

- Filed cybersecurity plan for GRIP Building GIANTS grant with support from IT.
- PSD filed surrebuttal testimony in 2023 rate case recommending approval as filed.
- Planning for Packetized EV charger phase-out.
- Multiple comment filings on PUC disconnection rulemaking docket 17-4999-INV.
- Meetings/discussion on potential Renewable Energy Standard changes.
- Legislative session preparation.
- Public EV charging behind retail meter discussions.
- Review of multiple streetlighting issues.
- Pole-mounted multifamily charger grant – chargers ordered and planning with DPW underway.
- Participating in Clean Heat Standard TAG; comments filed with PUC.
- Supported review of Miscellaneous Service Fees and calculation of new fees.
- PUC storage workshop participation.
- Discussions on battery storage proposals.
- Meeting with Burlington Fire Department on potential support for EV firefighting concerns.
- Filed to convert Pilot Energy Assistance Program to permanent rate.
- Meeting with VGS on VGS IRP.
- Scheduled Winooski One relicensing FERC site visit for January 29.
- Filed reply comments in DRP version B (Act 151/44 funding proposals)
- Posted RFI for efficiency improvements at McNeil.
- Contract extension discussions with energy suppliers.

Sustainability & Workforce Development

- Equity and Project Analyst continued outreach to stakeholder groups and community members.
- Hosted interns from ECHO's student internship program. Discussed NZE and the role of electrification and introduced group to the various jobs and opportunities in the utility sector.
- Joined Energy Assistance Program team meetings to consider enrollment strategy, including moving from pilot to program status.
- Met with Department of Planning and Inspections and other City staff to discuss implementation of the Carbon Impact Pollution fee ordinance, including process by which fees are collected and how building data is shared between BED and DPI. The Ordinance goes into effect January 1, 2024.
- Outreach to COTS and Cathedral Square Corporation re: DOE GRIP Building GIANTS award.
- Conducted academic interview on city climate change networks with researcher and Vanderbilt faculty member Caroline Cox.
- Served as panelist on VT Tech Meet-Up event. Discussed role of innovation and technology to meet the NZE 2030 goal. Joined by Geoff Robertson/VT Sustainable Jobs Fund and David Mullett/All Earth Renewables.
- Participated in monthly Burlington 2030 District executive committee meeting and set agenda for January 2030 District Steering Committee meeting.
- Worked with Communications & Technology Specialist, Adam Rabin, to record and edit new NZE podcast episodes, including with Lena Stier/Energy Action Network and with Mayor Miro Weinberger.
- Met with non-profit partner ReSource, CEDO staff, and McNeil Generating Plant colleagues on heavy equipment training as a means to diversify and broaden the hiring pool for McNeil Generating Plant and the City of Burlington.

Center for Safety and Risk Management – Paul Alexander

Safety

- Completed grate repair at Gas Turbine.
- Repositioned 2 sprinkler heads in new Dispatch area.
- Ordered electric power pusher to move cable trailers safely.
- Conducted weekly field safety inspections.
- Participated in Dept. of Labor new RAPIDS Apprenticeship training.

Environmental

- Modified the new CEMs sample panel and assisted with startup system tuning.
- Attempted the seven-day drift commission testing.
- Updated the Part 75 emissions monitoring plan to reflect new equipment.
- Completed quarterly waste water sampling.
- Completed OSHA HAZWOPER 40 refresher training.

Risk Management

- New Claims Investigations (1 total: Stolen Property).
- Complete and submit EV Grant application (VT Diesel Emission Reduction Financial Assistance).
- Re-request final 2023 Property/B&M Insurance and other lines with insurance agent.
- Assist with FERC 1/29/24 relicensing event.
- Complete and submit FY'23 Annual Report for C4S.
- Meet on capital fleet listing/tracking spreadsheet.

Purchasing/General Services

- Detailed 1 new Ford Lightning Electric Vehicle.
- Temp Utility Generalist hired for 4 months.

Center for Operations & Reliability – Munir Kasti

Engineering, Grid Services & Operations

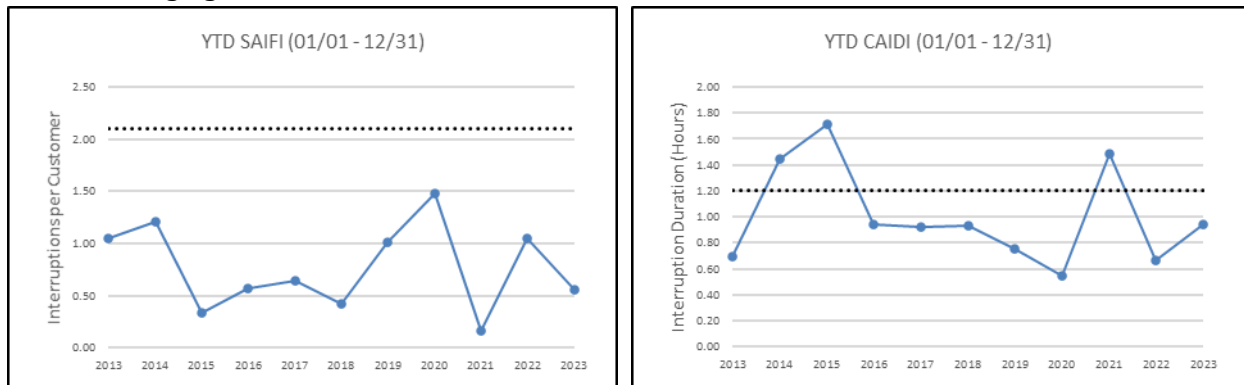
- Completed Ethan Allen Parkway 3-phase conversion work. This included the Gazo Avenue/James Avenue neighborhood and Moore Drive. We installed two additional primary phases to the neighborhood to balance and separate out the load.
- Transferred the primary, secondary, and a transformer on Haswell Street due to a plow hitting our pole.
- Set and transferred all equipment on nine condemned poles on Front Street, East Avenue, Pearl Street, Elmwood Avenue, Hardy Avenue, Maple Street, and Oak Street.
- Continued replacement of older underground cables on Battery Street between College Street and Pearl Street.
- Set a new pole and completed transferring the new service for the Burlington High School wood fired plant.
- Started the design for moving the overhead line in front of Burlington High School to underground.
- Designed new service to 703 Pine Street.

- Continued work on a streetlighting design for Deforest Road and Overlake Park.
- Completed streetlight upgrades on North Willard Street.
- Started the design for a temporary feed to the pump station at Cambrian Rise.
- Energized a new service at 15 Hungerford Terrace.
- Received and started evaluating bids for FY24 allotment of Level 2 and Level 3 EV chargers.
- BED continued to have meetings and correspondence with vendors to capture specifics and clarifications in the supervisory control and data acquisition (SCADA) system/Outage Management System (OMS)/Distribution Management System (DMS) proposals.
- Responded to 13 service appointments.
- Responded to requests for Mutual Aid for Vermont Electric Cooperative (VEC), Washington Electric Cooperative (WEC) and the City of Wolfeboro, NH.
- Welcomed our two newest apprentices Tyler Eastman and Jeffery Lareau.
- Completed interviews for the Associate Protection Engineer opening.

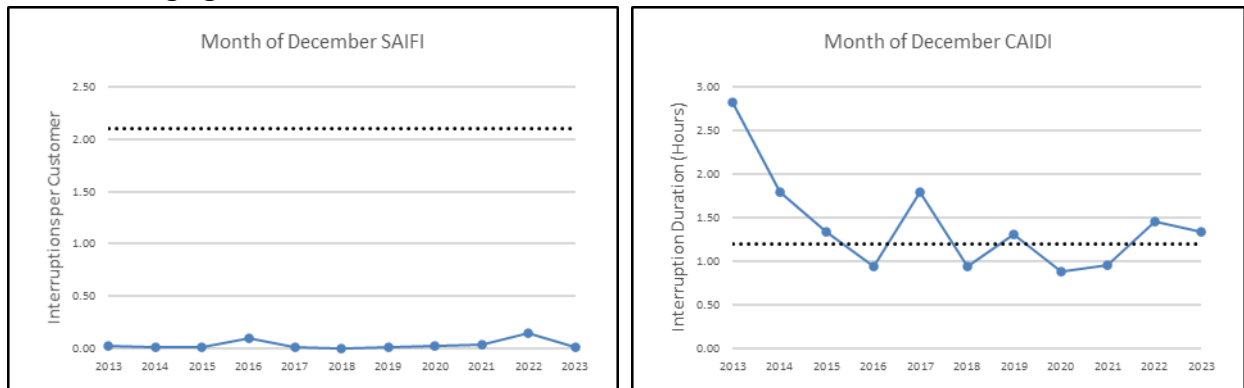
SAIFI & CAIDI Outage Metrics:

BED's distribution system experienced 11 outages in December 2023 (1 unscheduled and 10 scheduled). BED's SAIFI for the Month of December was 0.02 interruptions per customer and CAIDI was 1.33 hours per interruption. BED's YTD SAIFI is 0.55 interruptions per customer and YTD CAIDI is 0.94 hours per interruption. The higher than target CAIDI value is attributable to the outages required to complete planned upgrade work on Ethan Allen Parkway. This project accounted for six of the ten planned outages in the month of December.

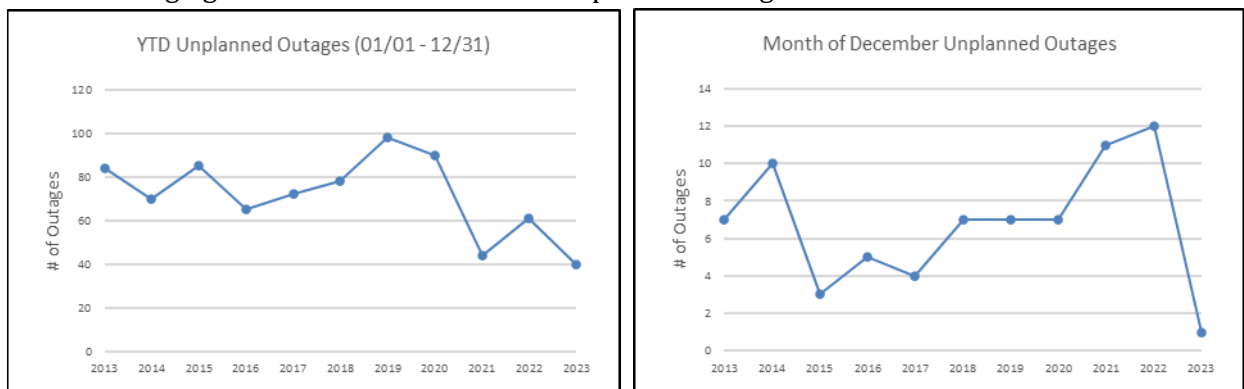
The following figure shows BED's historical YTD SAIFI and CAIDI:



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



The following figure shows BED's historical Unplanned Outages:



Generation

McNeil Generating Station

Month Generation: 17,864 MWh
 YTD Generation: 184,798 MWh
 Month Capacity Factor: 48.02%
 Month Availability: 100%
 Hours of Operation: 361.9 hours

This month at McNeil we conducted routine maintenance, preventative maintenance, and a few process improvement projects while building our wood supply for the winter run. Three open positions were filled.

Winooski One Hydroelectric Station

Monthly Generation: 4,070.78 MWH (134.13 % of average)
 YTD Generation: 36,317.99 MWH (120.72 % of average)
 Month Capacity Factor: 73.94%
 Annual Capacity Factor: 56.03%
 Month Availability: 97%

This month at Winooski One we conducted routine maintenance, preventative maintenance, and process improvement projects. We conducted troubleshooting and repairs to excitation modules, flood cleanup and repairs from a December flooding event, and prepared for winter operations.

Burlington Gas Turbine

Month Generation: 13.4 MWh
 YTD Generation: 427.6 MWh
 Month Capacity Factor: 0.00078%
 Month Availability: 100%
 Hours of Operation Unit A: 1.3 hours
 Hours of Operation Unit B: 1.3 hours

During the month of December, we conducted routine maintenance, preventative maintenance, and process improvement projects.

Solar (Pine Street 107 kW)

Month Generation: 2.2 MWh (11% from previous year)
 YTD Generation: 105 MWh
 Month Capacity Factor: 2.8 %
 Month Availability: 100%

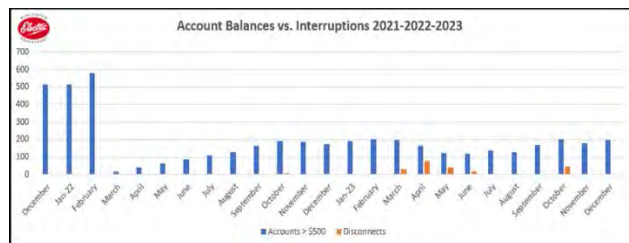
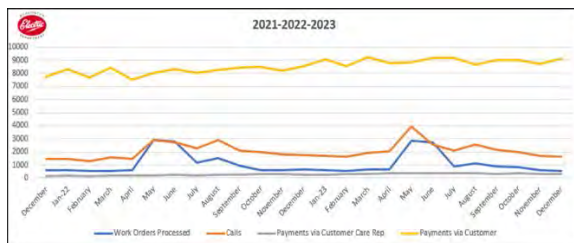
Solar (Airport 499 kW)

Month Generation: 9.4 MWh (-22% from previous year)
 YTD Generation: 549 MWh
 Month Capacity Factor: 2.5 %
 Month Availability: 100%

Center for Customer Care & Energy Services – Mike Kanarick

Customer Care

- **Call Answer Time (75% in 20 seconds):** December 2023 88.6%, November 88.0%, October 84.8%, September 76.2%, August 77.0%, July 77.3%. December 2022 87.5%, November 83.5%, October 85.7%, September 81.4%, August 69.5%, July 79.5%.
- **December 2023 Stats:** please see dashboard for additional metrics categories.



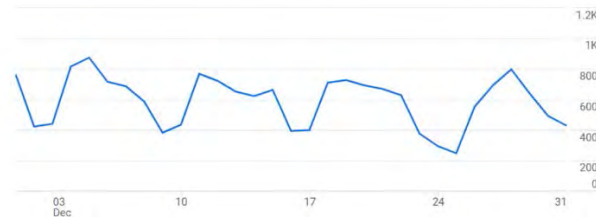
**Please note that our account balances greater than \$500 were substantially reduced with the application of more than \$1M in ARPA funds in early April 2022.*



Communications and Marketing

- Annual Net Zero Energy Calendar Contest: 2024 calendars are available at the reception desk at BED.
- Highlight: for a sixth year, BED and VGS collaborated with Burlington City Arts to support Burlington's New Year's Eve event, Highlight. This year, we partnered with the Boys & Girls Club of Burlington, the King Street Center, and the King Street Laundry to help make it possible for community members who otherwise may not have had the ability to attend Highlight to enjoy the amazing activities as we rang in the New Year.
- Net Zero Energy Festival – A Supercharged Day of Family Fun: please mark your calendars for Saturday, September 21, 2024 (rain date September 22). Planning soon will begin for our 3rd annual NZE Festival to help our community continue to learn how to take steps to meet our Net Zero Energy city goal by 2030. We again will have many activities and provide much information for folks of all ages, including: food trucks, DJ & live music, raffles, E-Bike test rides and EV test-drives, mobile bike repair unit, bike parking, heat pump, solar, and lawn care vendor partners, walking, biking, and carsharing advocates, BED energy experts, CHAMP, and more.
- Net Zero Energy Podcast: we invite you to take a listen at burlingtonelectric.com/podcast.
- Customer Bill Messages: our January on-bill message includes information about how to sign up for BED's Energy Assistance Program (EAP) and promotes our continuing rebates for going electric.
- North Avenue News: our January column goes further than our on-bill message in highlighting the steps BED is taking to convert our EAP from a pilot to a permanent program and how to sign up for the EAP. The column also promotes our many available rebates for going electric. We did not post an ad in this issue.
- Website and Facebook Highlights
 - Overall site-wide pageviews for December 2023 = 18,224
 - November = 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
- Unique homepage pageviews for December 2023 = 4,596
 - November = 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
- Full site visits for December 2023



- Visitors by website page

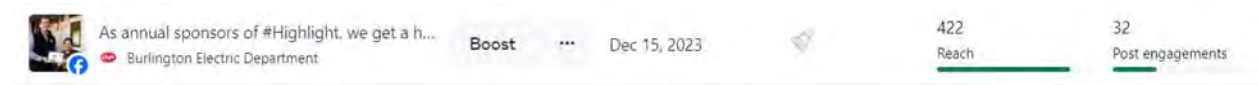
page title	Dec 2023	Nov 2023	Oct 2023	Sep 2023	Aug 2023	Jul 2023	June 2023	May 2023	Apr 2023	Mar 2023	Feb 2023	Jan 2023	Dec 2022
Burlington Electric Department	6780	7431	8029	19583	56889	36108	21676	29074	24511	29277	19854	26553	8207
Careers	192	271	262	318	335	274	220	251	290	280	252	200	235
Commercial Ways to Save	19	31	20	30	36	39	48	40	47	43	28	34	46
Contact Us	497	531	648	908	944	740	762	1192	746	485	514	474	473
Defeat The Peak	5	3	16	151	31	226	172	16	n/a	7	3	13	8
E-Bikes	61	89	112	167	235	234	199	141	205	172	114	118	76
E-billing	219	228	367	276	401	349	337	254	207	240	240	280	234
Electric Vehicles	303	288	388	392	430	309	323	355	454	414	431	492	331
EV Chargers	158	197	172	227	289	212	189	200	181	188	185	160	151
Heat Pumps	218	285	318	366	413	446	501	491	515	446	421	519	408
How To Pay My Bill	2309	2363	2457	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Lawn Care	33	60	65	65	126	136	145	274	265	103	79	120	67
Leadership Team	168	191	224	236	251	201	198	210	244	204	191	249	178
McNeil Generating Station	559	990	761	876	559	597	543	572	906	384	334	399	393
Net Zero Energy News	11	5	34	16	12	9	40	12	28	38	23	33	40
Net Zero Energy Podcast	61	30	96	55	43	38	40	43	74	171	27	44	69
New Rates & Temporary Energy Assistance Program	98	135	137	148	129	108	148	115	101	96	96	93	53
Our Energy Portfolio	58	100	52	100	55	78	99	82	94	108	85	70	49
Rates & Fees	192	232	210	239	213	207	198	295	239	216	169	209	201
Rebate Center	493	589	569	728	713	600	715	833	769	652	595	732	524
Rebates	472	564	636	674	715	714	694	776	831	645	562	860	554
Report A Problem	105	97	159	445	295	309	251	104	344	91	74	82	871
Residential Ways to Save	143	138	145	216	157	127	169	181	173	132	123	125	134
RFP	531	572	142	107	686	331	379	329	354	331	316	198	413
RFP Detail	1493	1602	440	478	1464	148	74	192	190	84	274	622	195
Stop or Start Service	264	273	372	400	713	616	908	2356	603	569	230	389	273
Waste Wood Yard	614	1484	1137	970	1040	1196	1199	1634	2010	320	259	593	590

*The "My Bill" page was renamed "How To Pay My Bill" in October 2023.

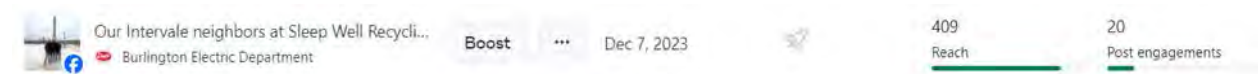
** The above chart now includes stats on a few more pages that get sufficient traffic, and page names are alphabetized for easier navigation.

- Top-performing December Facebook posts

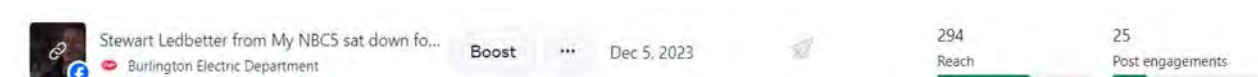
Highlight Button Donations to Boys & Girls Club and King Street Center



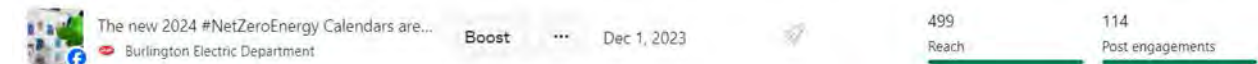
Sleep Well Visiting McNeil



NBC5 Interview with Darren



New Calendars



Energy Services

UVM

- Athletic Facility Energy Modeling Meeting – The UVM Gutterson Fieldhouse needs HVAC equipment replacement and other design changes to bring its operation to today’s technology standards. Major components of the building are a hockey rink and a pool. UVM has developed an energy model for the existing facility to be used to create scenarios of various energy efficiency measures and determine their viability. BED attended a meeting at UVM this month to enter into a conversation about the energy modeling results and determine next best steps in the facility’s future.
- Central Heating Plant / Boiler #1 and #2 Combustion Air Optimization – This project is in progress and scheduled to be completed by the end of 2023. Addition of VFDs to the combustion air control scheme will increase natural gas efficiency as well as reduce the fan electric energy usage. A combined rebate offer between BED and VGS has been delivered to the customer. Energy savings estimates for the project have also been completed.
- Fleming Museum Chiller Replacement – The air-cooled chiller for this facility is reaching end-of-life and a replacement system is actively under design. Updates to the technology will reduce pumping energy as well as provide chiller energy savings from the installation of a more efficient CBES energy code replacement. BED is developing a strategy to estimate energy savings and an incentive for this project.

- **Stafford Greenhouse LED Grow Lights** – The University is seeking to replace the last of their HID grow lights, installed in Greenhouse #1 and #11, with new LED technology. BED has developed a savings estimate for the replacement of 10 1.1KW HID fixtures with 620 W LED grow lights. It is expected that the project will be completed in mid-to-late January 2024.

UVMMC

- **ACC Corridor Lighting Retrofit to LED** – BED worked with UVMMC facility staff this past summer to gather the information needed to create a rebate offer for the replacement of 5 floors of corridor lighting in the ACC building. just over 1000 fixtures. This month BED has been asked to update the rebate proposal based on an adjustment to the total quantities of fixtures. We are still waiting for the specific information needed to complete a revised proposal.

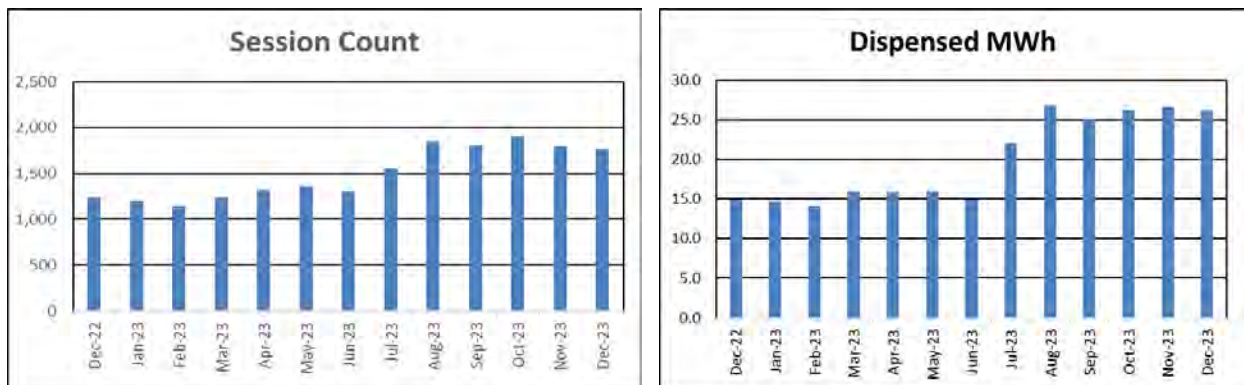
Other Services

- **King St. Youth Center / Demand and Energy Reductions** – BED was contacted by the building facility manager concerning reliability issues with their battery storage system. Although BED is unable to help with that issue, we scheduled a site visit this month with the facility manager. Our focus is on the DDC and optimizing its efficiency by adjusting schedules and set points. Our discussion also revealed other areas that could bring significant savings. We are now considering this as a re-commissioning opportunity.
- **Burlington School District / Integrated Arts Academy (Wheeler) Major Renovation** – A few months ago BED received 95% of the design drawings for this major HVAC and envelope renovation. It is envisioned that this will be a geothermally heated and dehumidified school. This month BED completed a site visit to the school in conjunction with the facility manager and their performance contractor. The scope of work is not fully defined as funding has not been identified for a part of the work that is under consideration.
- **Burlington Housing Authority** – This customer operates a number of low-income housing facilities in Burlington and is a key housing provider for those most vulnerable residents of the city. BED is discussing several properties with them with the intent to reduce energy use and electrical costs. This includes optimization of control strategies, possible installation of heat pump water heaters, and the selection of optimal electric rate structures for various house meter accounts.
- **Petra Cliffs Climbing Center / New Construction Project** – This project was first designed about five years ago. The project was put on hold for several reasons, the Covid lock-down being a significant one of them. This month BED attended a City Technical Review Committee meeting focused on the re-launching of this project. It will be a new construction design built on an empty lot in the South End of Burlington. For BED, this will be an energy modeling project with energy savings estimated via a comparison between a ‘baseline’ building and the proposed design. Construction is to begin during 2024.
- **Cambrian Rise / Building M New Construction** – BED has been in discussion with the architect for this project. Construction is well underway with energy modeling having been incorporated to optimize the building design. BED is scheduled to receive the detailed technical documents for the project so that potential energy savings and a rebate estimate can be developed. It is expected that additional work with the energy modeler will be required to properly complete the savings estimate.

- City Place Redevelopment – BED hosted a project meeting with the owners of the project and the technical development team. Updated information on both the south and north buildings was made available, along with an updated schedule. The south building is expected to be occupied near the end of 2024. The north building is beginning foundation construction and its completion will be substantially later than the south building.
- Post Apartments / Multifamily & Commercial Space Development – This is a new construction project at the site of the old VFW building. The incentives for the 38-unit residential portion of the building are being developed by BED. The ground floor houses two commercial spaces, and the BED commercial energy services group is focused on that portion of the building. We are presently evaluating the existing documentation package for the project to determine if any incentives will apply to the commercial spaces.

Electric Vehicles

- The EVSE dispensed a total of 26.1 MWh and supported 1,765 sessions.
- The top 3 sales were 105, 111, and 112 kWh and occurred at the Cherry St. Garage and the DCFC.
- The top 10 sessions (0.5% of total) accounted for 3.6% (935kWh) of the total monthly sale. The ten sessions ranged from 82kWh-112kWh.
- The EVSE served 905 unique drivers.
- Approximately 29% of the energy sold (7.5MWh) is attributed to the Pine St. DCFC.
- Approximately 31% (8.2MWh) from the 4 stations (8 ports) located in the Cherry St. and College St. Garages. The 175 Lakeside Ave. and Oakledge stations are seeing the least activity at 346 kWh and 351 kWh, respectively.
- The Marketplace Garage DCFC installation is still on-hold.
- Compensating Burlington Parks, Recreation and Waterfront (PR&W) for 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.
- Both of the College St. Garage stations are operating at 50% capacity. We are working with ChargePoint to troubleshoot.
- *Session Count* and *Dispensed Energy* plots from the public charging network are shown below.



- Number of EV and PHEV rebates to date – 652 (of this 133 LMI rebates to date as shown below)
 - New All Electric Vehicle – 294

- New All Electric Vehicle (LMI) – 63
 - New PHEV – 147
 - New PHEV (LMI) – 46
 - Used All Electric Vehicle – 53
 - Used All Electric Vehicle (LMI) – 16
 - Used PHEV- 25
 - Used PHEV (LMI) – 8
 - New All Electric Vehicle (\$60K plus) – 23
 - New PHEV (\$60K plus) – 2
- Number of customer loans with lending partners to date – 5
 - Number of customers currently participating in the new EV Charging Rate- 246
 - Number of E-Motorcycle rebates to date – 2

Electric Vehicle Charging Stations

- Number of home EV charging stations rebates to date – 185
- 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
- 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 – 687 (11 commercial & 676 residential)
- Number of e-leaf blowers to date – 76
- 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- 1,160 (of this 160 LMI rebates to date as shown below)
 - Number of ductless heat pumps to date – 689
 - Number of LMI eligible ductless heat pumps to date – 130
 - Number of centrally ducted heat pumps to date – 231
 - Number of LMI eligible centrally ducted heat pumps to date – 18
 - Number of air-to-water heat pumps to date – 3
 - 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 – 74
 - Number of LMI eligible heat pump hot water heaters participants to date – 12

Electric E-Bikes to Date

- Number of e-bike rebates to date – 567

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

- Number of induction Stovetops rebates to date – 71

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	Dec 2023 Actuals	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
Engage Customers and Community																	
Call answer time 75% within 20 seconds	75%	87%	88%	85%	76%	77%	77%	80%	71%	85%	88%	89%	85%	avg 82%	avg 82%	avg 81%	
Delinquent accounts >\$500	0	196	181	200	171	128	137	118	122	163	197	203	194	avg 188	avg 529	avg 201	
Disconnects for non-payment	0	0	0	47	0	0	6	17	42	77	32	3	0	12	0	45	
Energy Assistance Program Customers (program lifetime)	NA	234	224	214	201	190	160	154	146	138	134						
Energy Assistance Program Customers (currently enrolled)	300	219	209	199	178	158	142	139	128	125	119	119	110				
# of residential weatherization completions	10	1	1	1	1	0	1	0	2	3	1		0	5	5	3	11
Weatherization completions in rental properties		1	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	TBD	0
# of commercial building with improved thermal envelopes		1	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	2,427	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	451	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	1,976	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	\$ 504,942	\$ 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
Strengthen Reliability																	
SAIFI (AVG interruptions/customer) (annual target)	< 2.1	0.02	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	1.33	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	1	3	3	6	4	8	5	3	2	0	1	3	61	44	90	98
McNeil Forced Outages	0	0	2	0	0	0	0	0	0	1	1	0	1	14	5	21	TBD
W1H Forced Outages	0	1	0	0	0	0	1	0	0	0	0	0	0	6	9	2	TBD
GT Forced Outages	0	0	0	0	1	1	2	0	1	1	1	1	1	6	2	3	TBD
Invest in Our People, Processes, and Technology																	
Avg. # of days to fill positions under recruitment	120	274	272	265	234	194	184	241	211	155	178	238	179	100	68	179	
# of budgeted positions vacant	0	14	15	13	14	12	15	12	11	11	10	7	7	avg 9	avg 9	6	NA

BED 2023-2024 Strategic Direction Dashboard

Metrics by Strategic Initiative	Target	Dec 2023 Actuals	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
Innovate to Reach Net Zero Energy																	
<i>Tier 3 Program</i>																	
# of residential heat pump installs		8	17	23	22	21	11	4	24	13	8	10	25	255	315	203	10
# of commercial heat pump installs		2	1	1	1	0	1	0	1	0	0	1	0	4	4	13	0
# of residential hot water heat pump installs		1	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	0
Heat pump rebates		10	18	24	23	23	12	4	31	14	9	12	26	271	328	212	0
Heat pump hot water heater rebates		1	2	2	11	0	2	2	3	1	1	16	6	18	15	3	0
LMI heat pump rebates		1	6	0	4	2	3	2	0	1	2	0	0	43	28	6	4
Heat pump technology installs in rental properties		0	0	1	1	1	0	0	1	1	1	1	1	10	14	9	TBD
LMI heat pump hot water heater rebates		1	1	0	1	0	0	0	0	0	2	1	0	1	2	0	1
EV rebates - new		7	27	2	6	11	8	9	8	5	10	6	4	53	67	14	36
EV rebates - pre-owned		0	2	2	0	4	3	0	0	5	0	0	0	18	7	8	2
LMI EV rebates		2	4	5	3	2	1	5	0	0	1	2	1	9	11	7	7
PHEV rebates - new		2	4	3	2	1	2	0	1	0	4	3	3	27	41	10	17
PHEV rebates - preowned		0	0	0	1	1	0	0	1	1	1	1	0	12	6	5	3
LMI PHEV rebates		0	2	1	1	1	0	0	0	0	0	0	0	15	13	6	2
Public EV chargers in BTU (total)		32 ports	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)		26,100	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		3	5	4	10	3	2	7	10	12	8	5	3	70	32	20	12
EV rate charging customers (total)		246	242	230	228	219	213	208	204	192	178	168	162	157	40	40	28
Level 2 charger rebates		0	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	-	0	1	0
E-bike rebates		4	8	16	14	30	11	22	23	13	3	3	0	152	88	36	65
E-mower rebates		1	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	0	1	0	0	0
MWE of Tier 3 measures installed		1,706	2,221	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%	112%	103%	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	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	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 BTU (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

Metrics by Strategic Initiative	Target	Dec 2023 Actuals	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
<i>Demand Response</i>																	
Manage Budget and Risks Responsibly																	
<i>Safety & Environmental</i>																	
No. of workers' compensation/accidents per month	0	2	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	\$6,100	\$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
Lost 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	N/A	1.99	0.0	0.93	0.89
Lost 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	N/A	112.63	0.0	41.71	78.2
Lost work days per month	0	36	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	0.069	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	0	1	1	0	0	0	0	0	6	4	4	
Phosphorus levels to DEC in lbs (monthly/yearly total)	<0.8/37	0.028/0.705	.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	0	2	1	0	0	0	0	0	0	0	5	7	4	
# of new auto/property/other liability claims reported (monthly)	2	1	2	4	2	2	5	4	6	2	4	2	2	27	18	27	
<i>Purchasing & Facilities</i>																	
# of Purchase Orders for Inventory (Target: avg for winter months)	42	27	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	\$778,042	\$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	545	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	\$ 62,406	\$ 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	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	11	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		4.64	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		1.5	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		111	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	17,864	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%	100%	91%	48%	64%	99%	97%	100%	98%	32%	94%	100%	84%	67%	80%		
McNeil capacity factor	per budget	48%	38%	0%	10%	45%	96%	39%	3.7%	0%	61%	87%	81%	52.4%	62.4%		
Winooski One generation (MWH)	per budget	4,071	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%	97%	99%	98%	99%	99%	80%	99%	99%	99%	99%	99%	99%	98.3%	97%		
Winooski One capacity factor	per budget	74%	47%	46%	50%	74%	60%	37%	46%	69.8%	52.3%	50.1%	67.7%	41.7%	37%		
Gas Turbine generation (MWH)	NA	13.4	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%	100%	95%	100%	84%	21%	0%	50%	39%	35%	36%	0%	0%	54.5%	96%		
Gas Turbine capacity factor	NA	0.0%	0.6%	1.0%	0.5%	0.4%	0%	0%	0%	0%	0%	0%	0%	0.2%	0.21%		
BTV solar PV production (mWh)		114	220	291	493	531	533	571	723	531	359	233	82	5,260	5,015	5,182	
Cost of power supply - gross (\$000)			\$2,931	\$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)			\$1,637	\$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			\$0.11	\$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			\$0.06	\$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	



To: Burlington Board of Electric Commissioners
From: Darren Springer, General Manager
Date: January 5, 2024
Subject: **December 2023 Highlights of Department Activities**

General Manager

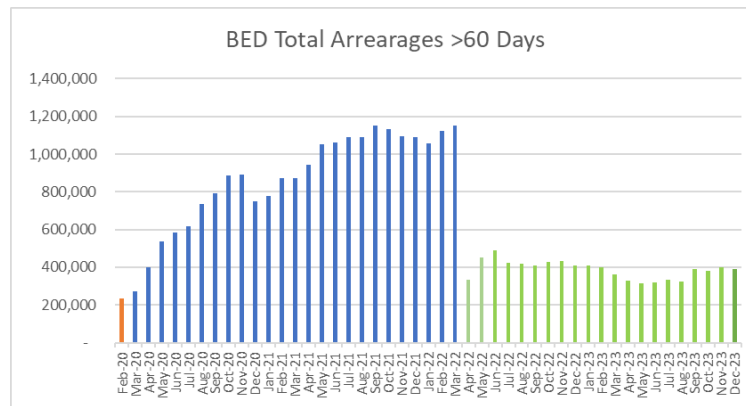
- **Legislative Session** – BED was part of a legislative work group that crafted pieces of consensus for renewable energy standard updates in 2024. We expect testimony in Committee before mid-January, and plan to outline our position further.
- **2024 Incentives** – BED is waiting on a proposal for decision on our Act 44 programs prior to changing any incentives in 2024. Hoping to update customer incentives by Spring at the latest.
- **Credit Line Increase** – The credit line increase charter change was unanimously approved by Board of Finance and City Council and will be part of several public hearings prior to being placed on the Town Meeting Day ballot. BED will work to create an updated term for the line renewal that better fits credit rating metric criteria.
- **Carbon Ballot Item** – Subsequent to enactment of the carbon fee ordinance, Councilor Bergman brought a proposal to place a new question on the Town Meeting Day ballot that could immediately impact the just passed ordinance which focuses on new construction and large existing buildings over 50,000 sq ft. The new ballot question could change compliance options, add buildings as small as 25,000 sq ft, and increase the carbon fee substantially. BED has raised concerns about this, as has UVM, UVM Medical Center, and Burlington Business Association. UVM Medical Center sent a note to the Council stating it is pausing all district energy work with BED and the City while this is pending, given its potential to impact their work in Burlington. The TEUC Committee held a hearing on it in December and has another meeting on it Jan. 9th. The Full Council could consider it as early as Jan. 16th.
- **F150 Lightning** – BED has its first F150 Lightning in its fleet fully operating and was featured on our social media this month.
- **EAP Rate** – Following Commission approval in December, BED is bringing the update to the Energy Assistance Program rate to Board of Finance 1/8 and City Council 1/16.
- **Moody's Rating** – Moody's in December affirmed BED's A3 rating with a stable outlook.

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 2023 rate case implementation and investigation.
- Continued sponsorship of IT Forward implementations.

Finance & Billing

- Moody's issued credit opinion affirming BED's A3 rating with a stable outlook.
- Responded to annual Moody's data request and reviewed draft Moody's rating report.
- Filed continuing disclosure for FY 2023.
- Continued work on updating cost allocations for miscellaneous service fees.
- Continued discussions with VELCO and fellow owners regarding projected VELCO capital spending, debt issuances, and equity calls.
- Prepared FY25 budget development guidelines and schedule.
- Calendar year-end closing and reporting.
- Updated fleet capital plan in coordination with Distribution, Forestry, and Purchasing.
- 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.
- Monitoring receivables in response to COVID19: as of December 31, 2023, BED's total non-current receivables had increased \$23,638 or 3.5% compared to the end of November 2023. Arrearages >60 days were \$392,196.



Information Services

- Survalent ADMS project IT architecture design and planning underway.
- MDMS Phase 2 work continues; expect project completion in Q1 2024.
- Project management team continues coordination of work on new dispatch room; working with several contractors to finalize construction/electrical/data work. Target for completing all major construction is March 2024.
- CIS project team released RFP on December 18th. We will be hosting a vendor Q&A session on January 11th with proposals due on February 2, 2024.
- Ongoing phishing and security testing of our users.
- Submitted a proposal to APPA for potential inclusion in their larger DOE cybersecurity grant application.
- Migration of AMI databases (test and production) to new server hardware.

Policy & Planning

- Filed cybersecurity plan for GRIP Building GIANTS grant with support from IT.
- PSD filed surrebuttal testimony in 2023 rate case recommending approval as filed.
- Planning for Packetized EV charger phase-out.
- Multiple comment filings on PUC disconnection rulemaking docket 17-4999-INV.
- Meetings/discussion on potential Renewable Energy Standard changes.
- Legislative session preparation.
- Public EV charging behind retail meter discussions.
- Review of multiple streetlighting issues.
- Pole-mounted multifamily charger grant – chargers ordered and planning with DPW underway.
- Participating in Clean Heat Standard TAG; comments filed with PUC.
- Supported review of Miscellaneous Service Fees and calculation of new fees.
- PUC storage workshop participation.
- Discussions on battery storage proposals.
- Meeting with Burlington Fire Department on potential support for EV firefighting concerns.
- Filed to convert Pilot Energy Assistance Program to permanent rate.
- Meeting with VGS on VGS IRP.
- Scheduled Winooski One relicensing FERC site visit for January 29.
- Filed reply comments in DRP version B (Act 151/44 funding proposals)
- Posted RFI for efficiency improvements at McNeil.
- Contract extension discussions with energy suppliers.

Sustainability & Workforce Development

- Equity and Project Analyst continued outreach to stakeholder groups and community members.
- Hosted interns from ECHO's student internship program. Discussed NZE and the role of electrification and introduced group to the various jobs and opportunities in the utility sector.
- Joined Energy Assistance Program team meetings to consider enrollment strategy, including moving from pilot to program status.
- Met with Department of Planning and Inspections and other City staff to discuss implementation of the Carbon Impact Pollution fee ordinance, including process by which fees are collected and how building data is shared between BED and DPI. The Ordinance goes into effect January 1, 2024.
- Outreach to COTS and Cathedral Square Corporation re: DOE GRIP Building GIANTS award.
- Conducted academic interview on city climate change networks with researcher and Vanderbilt faculty member Caroline Cox.
- Served as panelist on VT Tech Meet-Up event. Discussed role of innovation and technology to meet the NZE 2030 goal. Joined by Geoff Robertson/VT Sustainable Jobs Fund and David Mullett/All Earth Renewables.
- Participated in monthly Burlington 2030 District executive committee meeting and set agenda for January 2030 District Steering Committee meeting.
- Worked with Communications & Technology Specialist, Adam Rabin, to record and edit new NZE podcast episodes, including with Lena Stier/Energy Action Network and with Mayor Miro Weinberger.
- Met with non-profit partner ReSource, CEDO staff, and McNeil Generating Plant colleagues on heavy equipment training as a means to diversify and broaden the hiring pool for McNeil Generating Plant and the City of Burlington.

Center for Safety and Risk Management – Paul Alexander

Safety

- Completed grate repair at Gas Turbine.
- Repositioned 2 sprinkler heads in new Dispatch area.
- Ordered electric power pusher to move cable trailers safely.
- Conducted weekly field safety inspections.
- Participated in Dept. of Labor new RAPIDS Apprenticeship training.

Environmental

- Modified the new CEMs sample panel and assisted with startup system tuning.
- Attempted the seven-day drift commission testing.
- Updated the Part 75 emissions monitoring plan to reflect new equipment.
- Completed quarterly waste water sampling.
- Completed OSHA HAZWOPER 40 refresher training.

Risk Management

- New Claims Investigations (1 total: Stolen Property).
- Complete and submit EV Grant application (VT Diesel Emission Reduction Financial Assistance).
- Re-request final 2023 Property/B&M Insurance and other lines with insurance agent.
- Assist with FERC 1/29/24 relicensing event.
- Complete and submit FY'23 Annual Report for C4S.
- Meet on capital fleet listing/tracking spreadsheet.

Purchasing/General Services

- Detailed 1 new Ford Lightning Electric Vehicle.
- Temp Utility Generalist hired for 4 months.

Center for Operations & Reliability – Munir Kasti

Engineering, Grid Services & Operations

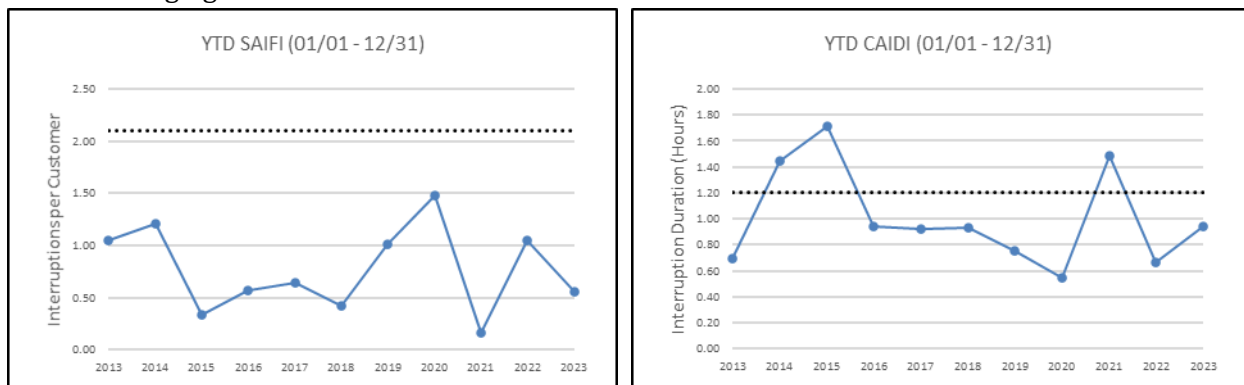
- Completed Ethan Allen Parkway 3-phase conversion work. This included the Gazo Avenue/James Avenue neighborhood and Moore Drive. We installed two additional primary phases to the neighborhood to balance and separate out the load.
- Transferred the primary, secondary, and a transformer on Haswell Street due to a plow hitting our pole.
- Set and transferred all equipment on nine condemned poles on Front Street, East Avenue, Pearl Street, Elmwood Avenue, Hardy Avenue, Maple Street, and Oak Street.
- Continued replacement of older underground cables on Battery Street between College Street and Pearl Street.
- Set a new pole and completed transferring the new service for the Burlington High School wood fired plant.
- Started the design for moving the overhead line in front of Burlington High School to underground.
- Designed new service to 703 Pine Street.

- Continued work on a streetlighting design for Deforest Road and Overlake Park.
- Completed streetlight upgrades on North Willard Street.
- Started the design for a temporary feed to the pump station at Cambrian Rise.
- Energized a new service at 15 Hungerford Terrace.
- Received and started evaluating bids for FY24 allotment of Level 2 and Level 3 EV chargers.
- BED continued to have meetings and correspondence with vendors to capture specifics and clarifications in the supervisory control and data acquisition (SCADA) system/Outage Management System (OMS)/Distribution Management System (DMS) proposals.
- Responded to 13 service appointments.
- Responded to requests for Mutual Aid for Vermont Electric Cooperative (VEC), Washington Electric Cooperative (WEC) and the City of Wolfeboro, NH.
- Welcomed our two newest apprentices Tyler Eastman and Jeffery Lareau.
- Completed interviews for the Associate Protection Engineer opening.

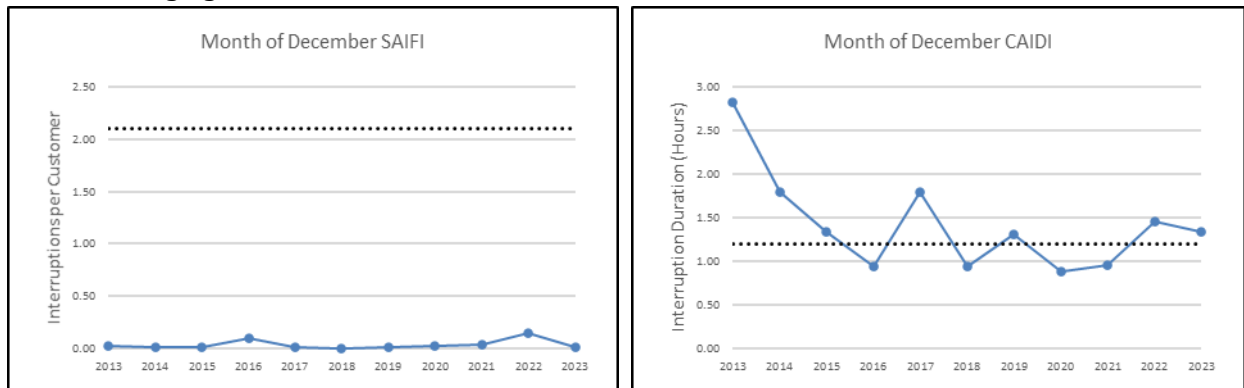
SAIFI & CAIDI Outage Metrics:

BED's distribution system experienced 11 outages in December 2023 (1 unscheduled and 10 scheduled). BED's SAIFI for the Month of December was 0.02 interruptions per customer and CAIDI was 1.33 hours per interruption. BED's YTD SAIFI is 0.55 interruptions per customer and YTD CAIDI is 0.94 hours per interruption. The higher than target CAIDI value is attributable to the outages required to complete planned upgrade work on Ethan Allen Parkway. This project accounted for six of the ten planned outages in the month of December.

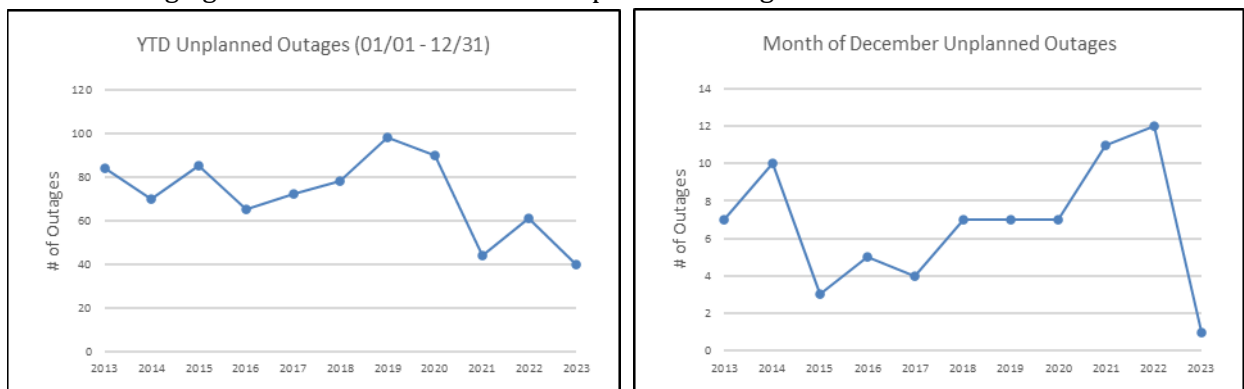
The following figure shows BED's historical YTD SAIFI and CAIDI:



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



The following figure shows BED's historical Unplanned Outages:



Generation

McNeil Generating Station

Month Generation: 17,864 MWh
 YTD Generation: 184,798 MWh
 Month Capacity Factor: 48.02%
 Month Availability: 100%
 Hours of Operation: 361.9 hours

This month at McNeil we conducted routine maintenance, preventative maintenance, and a few process improvement projects while building our wood supply for the winter run. Three open positions were filled.

Winooski One Hydroelectric Station

Monthly Generation: 4,070.78 MWH (134.13 % of average)
 YTD Generation: 36,317.99 MWH (120.72 % of average)
 Month Capacity Factor: 73.94%
 Annual Capacity Factor: 56.03%
 Month Availability: 97%

This month at Winooski One we conducted routine maintenance, preventative maintenance, and process improvement projects. We conducted troubleshooting and repairs to excitation modules, flood cleanup and repairs from a December flooding event, and prepared for winter operations.

Burlington Gas Turbine

Month Generation: 13.4 MWh
 YTD Generation: 427.6 MWh
 Month Capacity Factor: 0.00078%
 Month Availability: 100%
 Hours of Operation Unit A: 1.3 hours
 Hours of Operation Unit B: 1.3 hours

During the month of December, we conducted routine maintenance, preventative maintenance, and process improvement projects.

Solar (Pine Street 107 kW)

Month Generation: 2.2 MWh (11% from previous year)
 YTD Generation: 105 MWh
 Month Capacity Factor: 2.8 %
 Month Availability: 100%

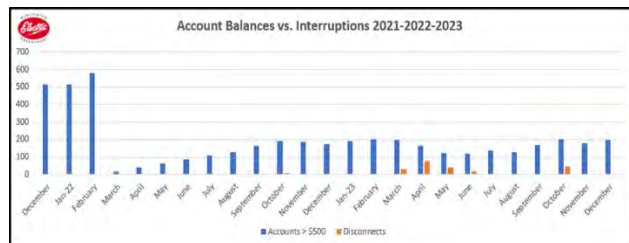
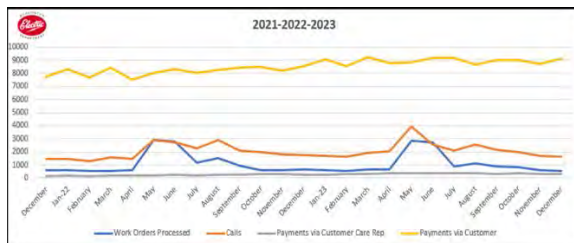
Solar (Airport 499 kW)

Month Generation: 9.4 MWh (-22% from previous year)
 YTD Generation: 549 MWh
 Month Capacity Factor: 2.5 %
 Month Availability: 100%

Center for Customer Care & Energy Services – Mike Kanarick

Customer Care

- **Call Answer Time (75% in 20 seconds):** December 2023 88.6%, November 88.0%, October 84.8%, September 76.2%, August 77.0%, July 77.3%. December 2022 87.5%, November 83.5%, October 85.7%, September 81.4%, August 69.5%, July 79.5%.
- **December 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: 2024 calendars are available at the reception desk at BED.
- Highlight: for a sixth year, BED and VGS collaborated with Burlington City Arts to support Burlington's New Year's Eve event, Highlight. This year, we partnered with the Boys & Girls Club of Burlington, the King Street Center, and the King Street Laundry to help make it possible for community members who otherwise may not have had the ability to attend Highlight to enjoy the amazing activities as we rang in the New Year.
- Net Zero Energy Festival – A Supercharged Day of Family Fun: please mark your calendars for Saturday, September 21, 2024 (rain date September 22). Planning soon will begin for our 3rd annual NZE Festival to help our community continue to learn how to take steps to meet our Net Zero Energy city goal by 2030. We again will have many activities and provide much information for folks of all ages, including: food trucks, DJ & live music, raffles, E-Bike test rides and EV test-drives, mobile bike repair unit, bike parking, heat pump, solar, and lawn care vendor partners, walking, biking, and carsharing advocates, BED energy experts, CHAMP, and more.
- Net Zero Energy Podcast: we invite you to take a listen at burlingtonelectric.com/podcast.
- Customer Bill Messages: our January on-bill message includes information about how to sign up for BED's Energy Assistance Program (EAP) and promotes our continuing rebates for going electric.
- North Avenue News: our January column goes further than our on-bill message in highlighting the steps BED is taking to convert our EAP from a pilot to a permanent program and how to sign up for the EAP. The column also promotes our many available rebates for going electric. We did not post an ad in this issue.
- Website and Facebook Highlights
 - Overall site-wide pageviews for December 2023 = 18,224
 - November = 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
- Unique homepage pageviews for December 2023 = 4,596
 - November = 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
- Full site visits for December 2023



- Visitors by website page

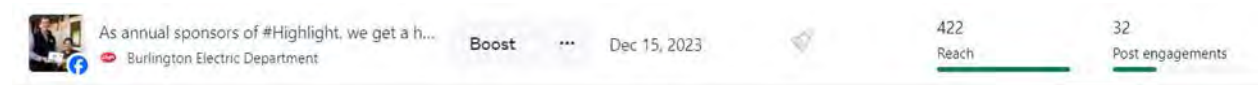
page title	Dec 2023	Nov 2023	Oct 2023	Sep 2023	Aug 2023	Jul 2023	June 2023	May 2023	Apr 2023	Mar 2023	Feb 2023	Jan 2023	Dec 2022
Burlington Electric Department	6780	7431	8029	19583	56889	36108	21676	29074	24511	29277	19854	26553	8207
Careers	192	271	262	318	335	274	220	251	290	280	252	200	235
Commercial Ways to Save	19	31	20	30	36	39	48	40	47	43	28	34	46
Contact Us	497	531	648	908	944	740	762	1192	746	485	514	474	473
Defeat The Peak	5	3	16	151	31	226	172	16	n/a	7	3	13	8
E-Bikes	61	89	112	167	235	234	199	141	205	172	114	118	76
E-billing	219	228	367	276	401	349	337	254	207	240	240	280	234
Electric Vehicles	303	288	388	392	430	309	323	355	454	414	431	492	331
EV Chargers	158	197	172	227	289	212	189	200	181	188	185	160	151
Heat Pumps	218	285	318	366	413	446	501	491	515	446	421	519	408
How To Pay My Bill	2309	2763	2457	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Lawn Care	33	60	65	65	126	136	145	274	265	103	79	120	67
Leadership Team	168	191	224	236	251	201	198	210	244	204	191	249	178
McNeil Generating Station	559	990	761	876	559	597	543	572	906	384	334	399	393
Net Zero Energy News	11	5	34	16	12	9	40	12	28	38	23	33	40
Net Zero Energy Podcast	61	30	96	55	43	38	40	43	74	171	27	44	69
New Rates & Temporary Energy Assistance Program	98	135	137	148	129	108	148	115	101	96	96	93	53
Our Energy Portfolio	58	100	52	100	55	78	99	82	94	108	85	70	49
Rates & Fees	192	232	210	239	213	207	198	295	239	216	169	209	201
Rebate Center	493	589	569	728	713	600	715	833	769	652	595	732	524
Rebates	472	564	636	674	715	714	694	776	831	645	562	860	554
Report A Problem	105	97	159	445	295	309	251	104	344	91	74	82	871
Residential Ways to Save	143	138	145	216	157	127	169	181	173	132	123	125	134
RFP	531	572	142	107	686	331	379	329	354	331	316	198	413
RFP Detail	1493	1602	440	478	1464	148	74	192	190	84	274	622	195
Stop or Start Service	264	273	372	400	713	616	908	2356	603	569	230	389	273
Waste Wood Yard	614	1484	1137	970	1040	1196	1199	1634	2010	320	259	593	590

*The "My Bill" page was renamed "How To Pay My Bill" in October 2023.

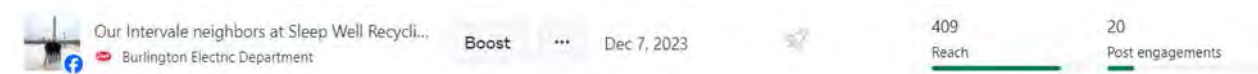
** The above chart now includes stats on a few more pages that get sufficient traffic, and page names are alphabetized for easier navigation.

- Top-performing December Facebook posts

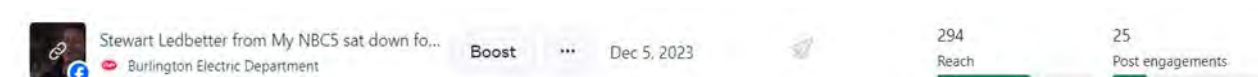
Highlight Button Donations to Boys & Girls Club and King Street Center



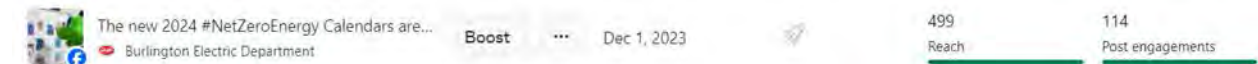
Sleep Well Visiting McNeil



NBC5 Interview with Darren



New Calendars



Energy Services

UVM

- Athletic Facility Energy Modeling Meeting – The UVM Gutterson Fieldhouse needs HVAC equipment replacement and other design changes to bring its operation to today’s technology standards. Major components of the building are a hockey rink and a pool. UVM has developed an energy model for the existing facility to be used to create scenarios of various energy efficiency measures and determine their viability. BED attended a meeting at UVM this month to enter into a conversation about the energy modeling results and determine next best steps in the facility’s future.
- Central Heating Plant / Boiler #1 and #2 Combustion Air Optimization – This project is in progress and scheduled to be completed by the end of 2023. Addition of VFDs to the combustion air control scheme will increase natural gas efficiency as well as reduce the fan electric energy usage. A combined rebate offer between BED and VGS has been delivered to the customer. Energy savings estimates for the project have also been completed.
- Fleming Museum Chiller Replacement – The air-cooled chiller for this facility is reaching end-of-life and a replacement system is actively under design. Updates to the technology will reduce pumping energy as well as provide chiller energy savings from the installation of a more efficient CBES energy code replacement. BED is developing a strategy to estimate energy savings and an incentive for this project.

- **Stafford Greenhouse LED Grow Lights** – The University is seeking to replace the last of their HID grow lights, installed in Greenhouse #1 and #11, with new LED technology. BED has developed a savings estimate for the replacement of 10 1.1KW HID fixtures with 620 W LED grow lights. It is expected that the project will be completed in mid-to-late January 2024.

UVMMC

- **ACC Corridor Lighting Retrofit to LED** – BED worked with UVMMC facility staff this past summer to gather the information needed to create a rebate offer for the replacement of 5 floors of corridor lighting in the ACC building. just over 1000 fixtures. This month BED has been asked to update the rebate proposal based on an adjustment to the total quantities of fixtures. We are still waiting for the specific information needed to complete a revised proposal.

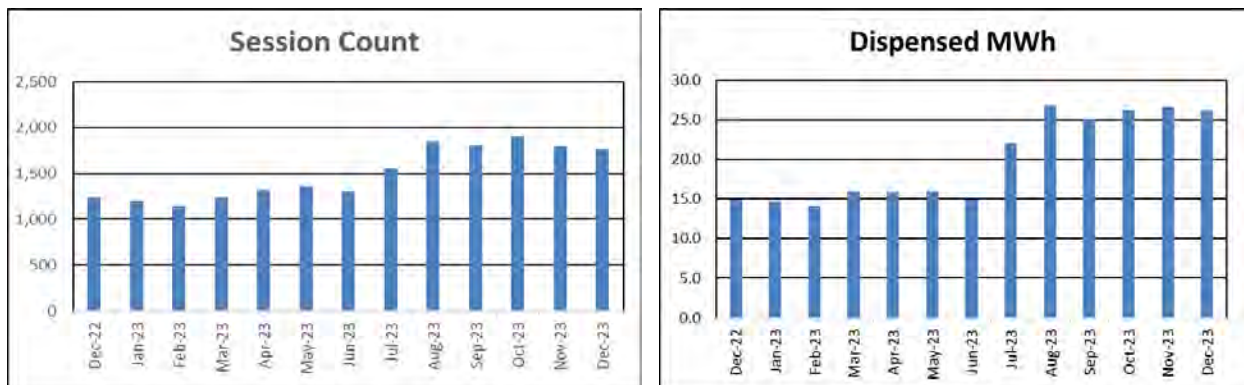
Other Services

- **King St. Youth Center / Demand and Energy Reductions** – BED was contacted by the building facility manager concerning reliability issues with their battery storage system. Although BED is unable to help with that issue, we scheduled a site visit this month with the facility manager. Our focus is on the DDC and optimizing its efficiency by adjusting schedules and set points. Our discussion also revealed other areas that could bring significant savings. We are now considering this as a re-commissioning opportunity.
- **Burlington School District / Integrated Arts Academy (Wheeler) Major Renovation** – A few months ago BED received 95% of the design drawings for this major HVAC and envelope renovation. It is envisioned that this will be a geothermally heated and dehumidified school. This month BED completed a site visit to the school in conjunction with the facility manager and their performance contractor. The scope of work is not fully defined as funding has not been identified for a part of the work that is under consideration.
- **Burlington Housing Authority** – This customer operates a number of low-income housing facilities in Burlington and is a key housing provider for those most vulnerable residents of the city. BED is discussing several properties with them with the intent to reduce energy use and electrical costs. This includes optimization of control strategies, possible installation of heat pump water heaters, and the selection of optimal electric rate structures for various house meter accounts.
- **Petra Cliffs Climbing Center / New Construction Project** – This project was first designed about five years ago. The project was put on hold for several reasons, the Covid lock-down being a significant one of them. This month BED attended a City Technical Review Committee meeting focused on the re-launching of this project. It will be a new construction design built on an empty lot in the South End of Burlington. For BED, this will be an energy modeling project with energy savings estimated via a comparison between a ‘baseline’ building and the proposed design. Construction is to begin during 2024.
- **Cambrian Rise / Building M New Construction** – BED has been in discussion with the architect for this project. Construction is well underway with energy modeling having been incorporated to optimize the building design. BED is scheduled to receive the detailed technical documents for the project so that potential energy savings and a rebate estimate can be developed. It is expected that additional work with the energy modeler will be required to properly complete the savings estimate.

- City Place Redevelopment – BED hosted a project meeting with the owners of the project and the technical development team. Updated information on both the south and north buildings was made available, along with an updated schedule. The south building is expected to be occupied near the end of 2024. The north building is beginning foundation construction and its completion will be substantially later than the south building.
- Post Apartments / Multifamily & Commercial Space Development – This is a new construction project at the site of the old VFW building. The incentives for the 38-unit residential portion of the building are being developed by BED. The ground floor houses two commercial spaces, and the BED commercial energy services group is focused on that portion of the building. We are presently evaluating the existing documentation package for the project to determine if any incentives will apply to the commercial spaces.

Electric Vehicles

- The EVSE dispensed a total of 26.1 MWh and supported 1,765 sessions.
- The top 3 sales were 105, 111, and 112 kWh and occurred at the Cherry St. Garage and the DCFC.
- The top 10 sessions (0.5% of total) accounted for 3.6% (935kWh) of the total monthly sale. The ten sessions ranged from 82kWh-112kWh.
- The EVSE served 905 unique drivers.
- Approximately 29% of the energy sold (7.5MWh) is attributed to the Pine St. DCFC. Approximately 31% (8.2MWh) from the 4 stations (8 ports) located in the Cherry St. and College St. Garages. The 175 Lakeside Ave. and Oakledge stations are seeing the least activity at 346 kWh and 351 kWh, respectively.
- The Marketplace Garage DCFC installation is still on-hold.
- Compensating Burlington Parks, Recreation and Waterfront (PR&W) for 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.
- Both of the College St. Garage stations are operating at 50% capacity. We are working with ChargePoint to troubleshoot.
- *Session Count* and *Dispensed Energy* plots from the public charging network are shown below.



- Number of EV and PHEV rebates to date – 652 (of this 133 LMI rebates to date as shown below)
 - New All Electric Vehicle – 294

- New All Electric Vehicle (LMI) – 63
 - New PHEV – 147
 - New PHEV (LMI) – 46
 - Used All Electric Vehicle – 53
 - Used All Electric Vehicle (LMI) – 16
 - Used PHEV- 25
 - Used PHEV (LMI) – 8
 - New All Electric Vehicle (\$60K plus) – 23
 - New PHEV (\$60K plus) – 2
- Number of customer loans with lending partners to date – 5
 - Number of customers currently participating in the new EV Charging Rate- 246
 - Number of E-Motorcycle rebates to date – 2

Electric Vehicle Charging Stations

- Number of home EV charging stations rebates to date – 185
- 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
- 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 – 687 (11 commercial & 676 residential)
- Number of e-leaf blowers to date – 76
- 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- 1,160 (of this 160 LMI rebates to date as shown below)
 - Number of ductless heat pumps to date – 689
 - Number of LMI eligible ductless heat pumps to date – 130
 - Number of centrally ducted heat pumps to date – 231
 - Number of LMI eligible centrally ducted heat pumps to date – 18
 - Number of air-to-water heat pumps to date – 3
 - 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 – 74
 - Number of LMI eligible heat pump hot water heaters participants to date – 12

Electric E-Bikes to Date

- Number of e-bike rebates to date – 567

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

- Number of induction Stovetops rebates to date – 71

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

- Number of snow blower rebates to date – 20



*FY 2024
Financial Review
November*

January 3, 2024

Burlington Electric Department Financial Review

FY 2024

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FINANCIAL HIGHLIGHTS – BUDGET VS ACTUAL as of NOVEMBER FY24

(\$000)	Full Yr Budget	CURRENT MONTH			YEAR TO DATE		
		Budget	Actual	Variance	Budget	Actual	Variance
Sales to Customers	53,110	3,953	4,030	76	22,555	22,910	355
Other Revenues	3,775	316	393	77	1,548	1,216	(333)
Power Supply Revenues	8,244	1,594	1,294	(300)	4,035	3,646	(389)
Total Operating Revenues	65,130	5,864	5,717	(147)	28,139	27,772	(367)
Power Supply Expense (Net)	33,880	2,791	2,931	(140)	14,938	13,586	1,352
Operating Expense	22,846	1,865	1,812	54	9,346	9,055	291
Depreciation & Amortization	6,630	552	545	7	2,762	2,673	90
Taxes	3,369	281	266	15	1,411	1,412	(1)
Sub-Total Expenses	66,725	5,490	5,554	(64)	28,458	26,726	1,732
Operating Income	(1,595)	374	163	(211)	(319)	1,046	1,365
Other Income & Deductions	5,044	483	497	14	2,128	2,976	848
Interest Expense	3,166	262	272	(10)	1,331	1,436	(104)
Net Income (Loss)	283	595	388	(207)	478	2,586	2,108

Year-to-Date Results:

- **Sales to Customers** up \$355,000 (1.6%). Residential Sales up \$109,100 and Non-Residential Sales up \$243,600.
- **Other Revenues** down \$333,000 (21.5%)
 - a. DSM billable (customer driven).
- **Power Supply Revenues** down \$389,000 (10%)
 - a. McNeil REC revenue of \$1,804,000 compared to a budget of \$1,954,000.
 - b. Wind REC revenue of \$1,373,000 compared to a budget of \$1,535,000.
 - c. Hydro REC revenue of \$469,000 compared to a budget of \$546,000.
- **Power Supply Expenses (Net)** down \$1,352,000 (9%)
 - a. Fuel down \$956,000.
 - b. Purchased Power down \$456,000.
 - c. Transmission up, \$69,000.
- **Taxes**
 - a. Actual Payment in Lieu of Tax (PILOT) will be \$27,000 higher than budget assumption for the year.
- **Operating Expenses** down \$291,000 (3.1%)
 - a. Various operating expense items are less than budget including Labor & Overhead, (\$206,000), DSM (rebates & outside services) (\$103,000), materials & supplies (\$79,000) and RPS Compliance (\$96,000). Offset by A&G Clearing higher, \$121,000 and amortization expense associated with the Moran Frame Project.
- **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. Asset retirements budgeted in August (\$135,000) have not happened.
 - d. Timing of jobbing unfavorable \$75,000.

FINANCIAL HIGHLIGHTS – BUDGET VS ACTUAL as of NOVEMBER FY24

Capital Spending – November YTD (\$000s)				
Plant Type	Full Yr. Budget	Budget	Actual	% Spent
Production	\$2,038	\$1,251	\$529	26%
Other	415	225	64	15%
Distribution	7,166	2,154	1,678	23%
General	1,343	561	443	33%
Total	\$10,963	\$4,191	\$2,714	25%

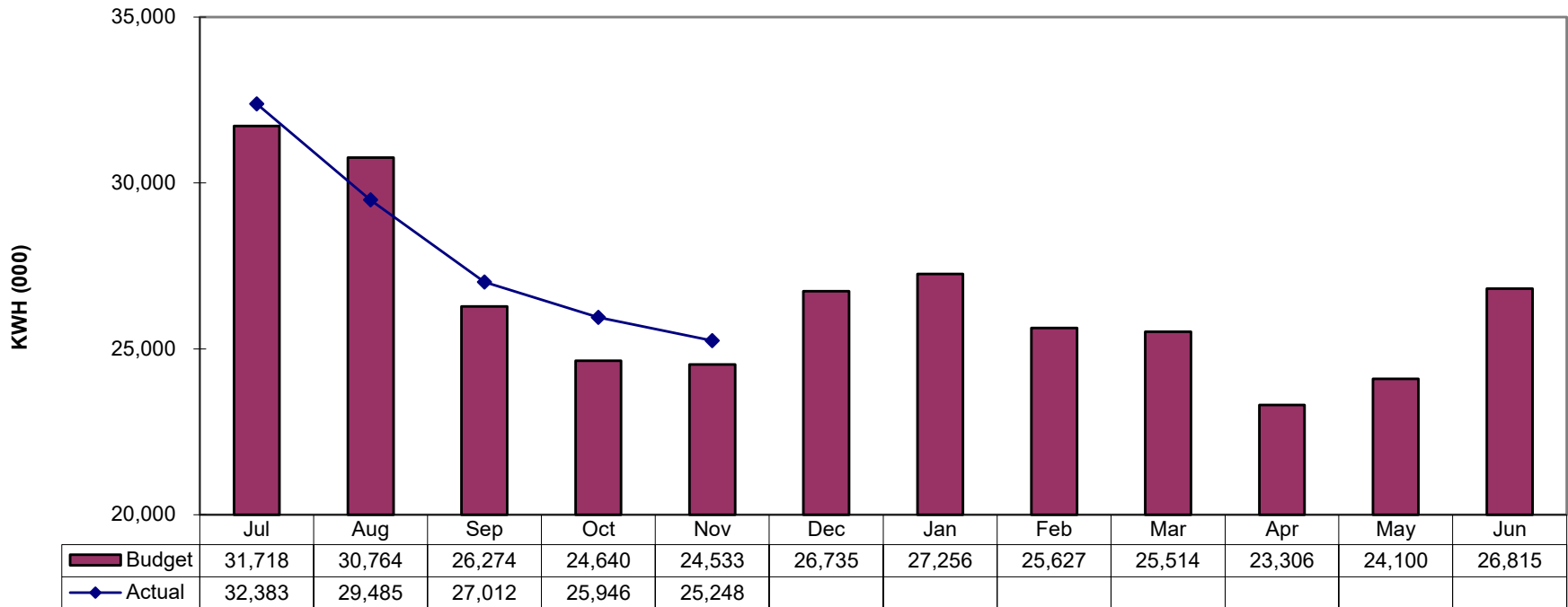
- (1) **Production** – Timing of turbine control system upgrade at McNeil plant, \$247,000 and various projects at Winooski One Hydro, \$142,000 and Gas Turbine, \$165,000.
- (2) **Other** – Timing; budget includes Policy & Planning Research & Development, Direct Current Fast Chargers (new locations) 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 November 30, 2023 Operating Cash and Investments	
Operating Funds	\$8,064,500
Operating Fund – CDs	\$972,900
Total Operating Cash	\$9,037,400

Credit Rating Factors – November 2023				
	"A"	"Baa"	Current	3 Year Average
Debt Service Coverage Ratio	1.25	1.25	4.64	3.95
Adjusted Debt Service Coverage Ratio	1.50	1.10	1.48	1.12
Cash Coverage - Days Cash on Hand	90	30	111	112

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

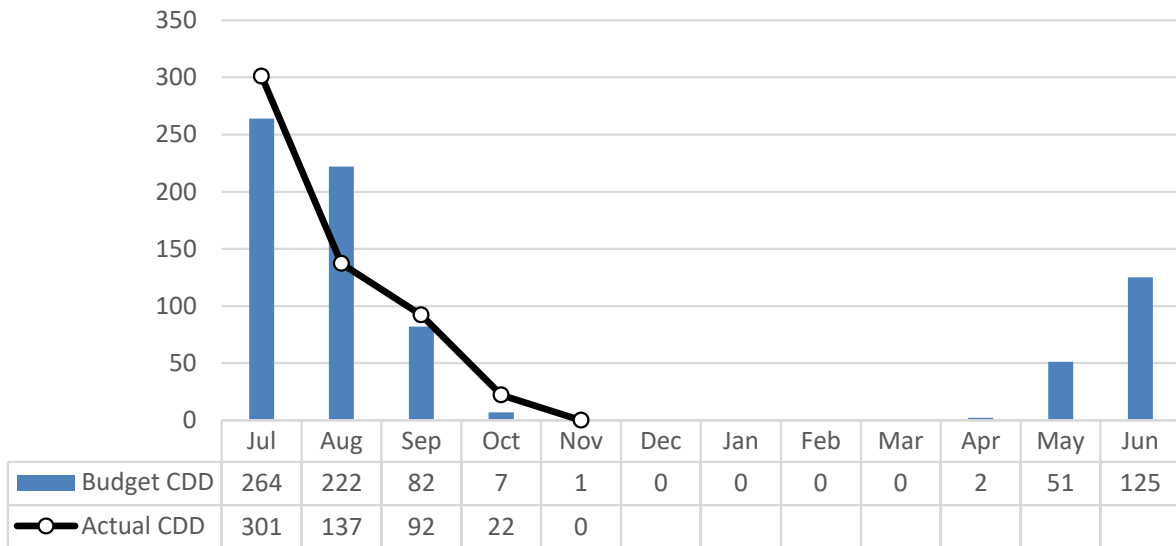
**Total Sales to Customers - KWH
Monthly**



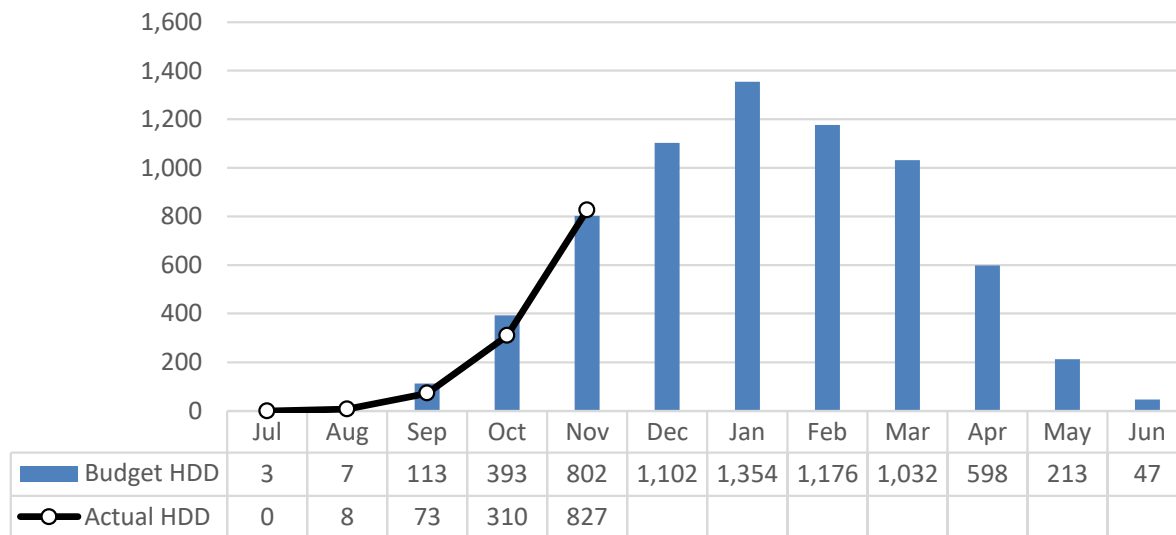
KWH Sales to Customers (YTD)												
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Budget	31,718	62,482	88,756	113,397	137,930	164,665	191,921	217,547	243,061	266,367	290,468	317,283
Actual	32,383	61,868	88,880	114,826	140,075							

FY 2024

Cooling Degree Days (CDD)



Heating Degree Days (HDD)

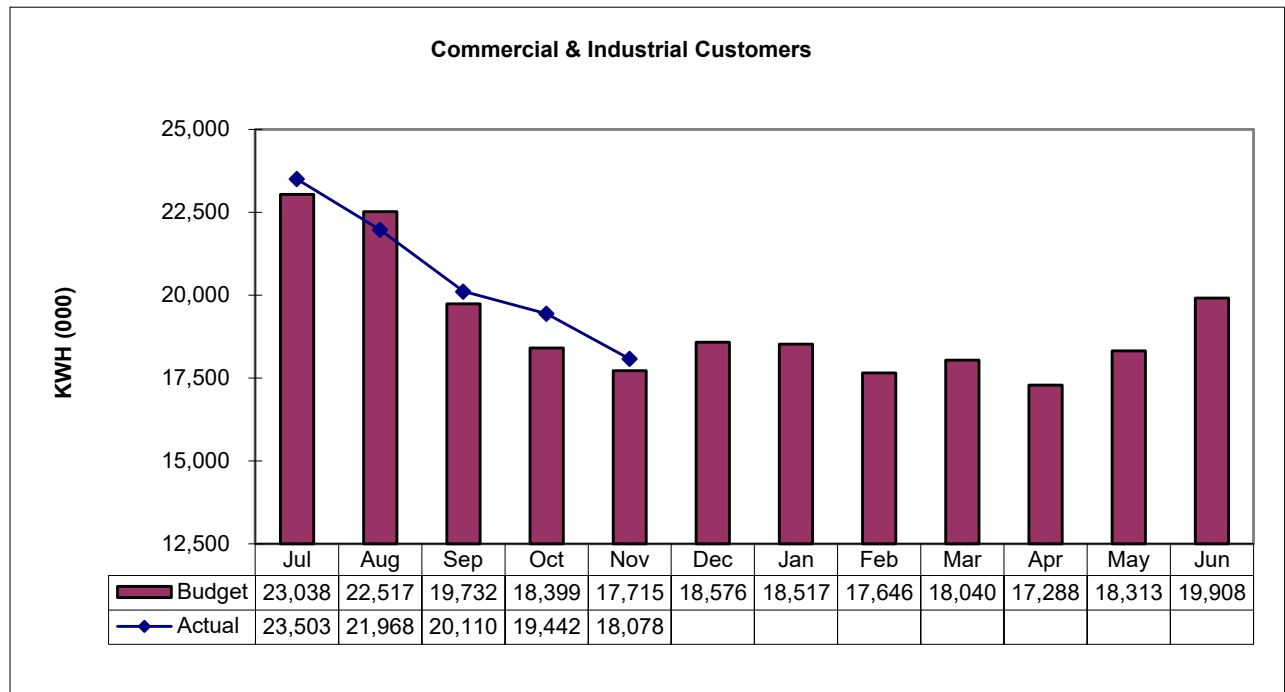
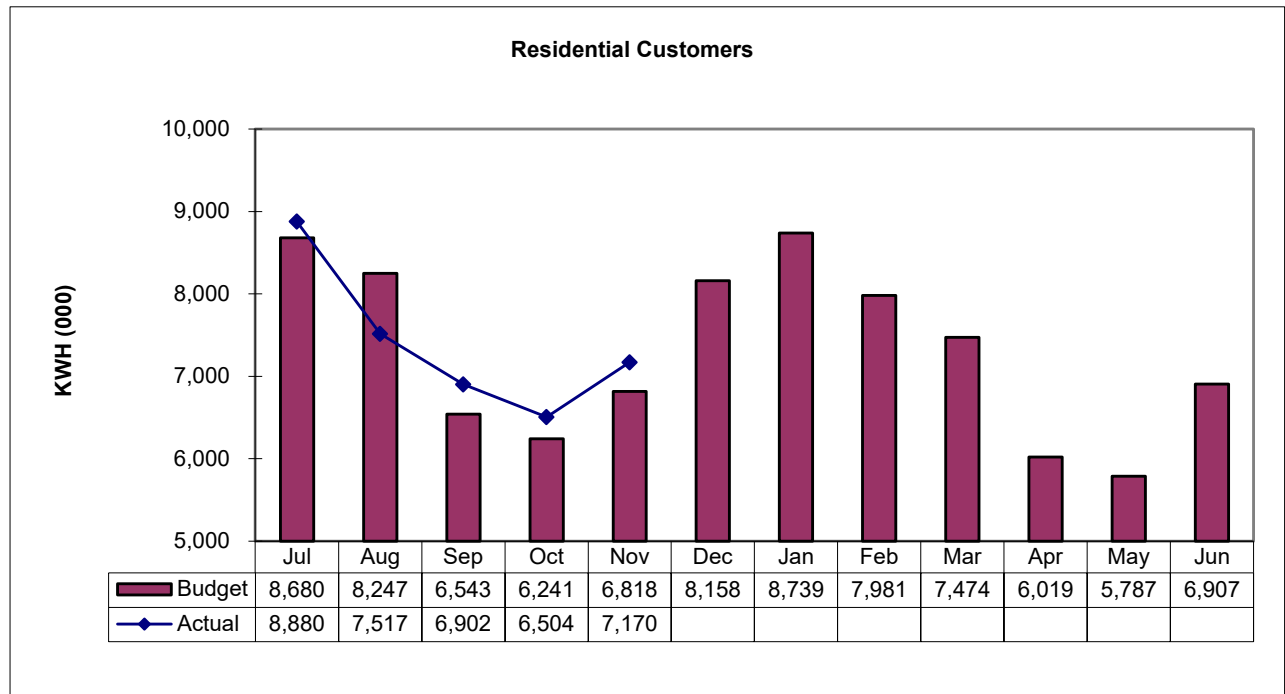


Average Monthly Temperature

	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	37							

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 **November - FY 2024**

	(\$000)						
	Current Month				Year-to-Date		
	Budget	Actual	Variance		Budget	Actual	Variance
Expenses:							
Fuel (p. 7)	\$716	\$533	\$183	(1)	\$3,722	\$2,766	\$956 (1)
Purchased Power (p.11)	1,220	1,430	(210)	(2)	7,167	6,703	465 (2)
Purchased Power Adjustment (p 11)	43	43	(0)		217	217	(0)
Transmission Fees - ISO	482	614	(132)	(3)	3,076	3,235	(158) (3)
Transmission Fees - Velco	262	249	14	(4)	466	436	30 (4)
Transmission Fees - Other	68	62	6		290	230	59 (5)
Total Expenses	2,791	2,931	(140)		14,938	13,586	1,352
Revenues:							
Renewable Energy Certificates - McNeil	507	266	(241)		1,954	1,804	(150)
Renewable Energy Certificates - Wind	766	780	14		1,535	1,373	(162)
Renewable Energy Certificates - Hydro	322	248	(74)		546	469	(77)
Renewable Energy Certificates - Other	0	0	0		0	0	0
Total Revenues	1,594	1,294	(300)		4,035	3,646	(389) (6)
Net Power Supply Costs	\$1,197	\$1,637	(\$440)		\$10,904	\$9,941	\$963
Load (MWh)	25,233	26,747	1,514		141,748	144,979	3,231
\$/MWh	\$47.43	\$61.20	\$13.77		\$76.93	\$68.57	(\$8.36)

Current Month:

(1) See detail on page 7.

(2) See detail on page 11.

(3) October Peak load over Budget.

(4) VELCO Common charges under 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 18% under Budget due to lower McNeil and Wind production in calendar year 2023.

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

	(\$000)						
	Current Month			Year-to-Date			
	Budget	Actual	Variance	Budget	Actual	Variance	
<u>FUEL:</u>							
McNeil:							
Fuel Consumed	569	357	212 (1)	2,501	1,798	703 (1)	
Swanton Yard	13	43	(30) (1)	217	215	2 (1)	
Train Deliveries	30	60	(31) (1)	468	316	152 (1)	
Labor & Other Expenses	87	32	55 (2)	451	233	218 (2)	
Total McNeil Fuel	699	493	206	3,637	2,562	1,075	
Gas Turbine	17	40	(23) (3)	85	204	(119) (3)	
Total Fuel	<u>716</u>	<u>533</u>	<u>183</u>	<u>3,722</u>	<u>2,766</u>	<u>956</u>	

Current Month:

(1) McNeil production 40% under Budget. 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 (96 MWh) 177% over Budget. Testing to re-establish rates post extended outage.

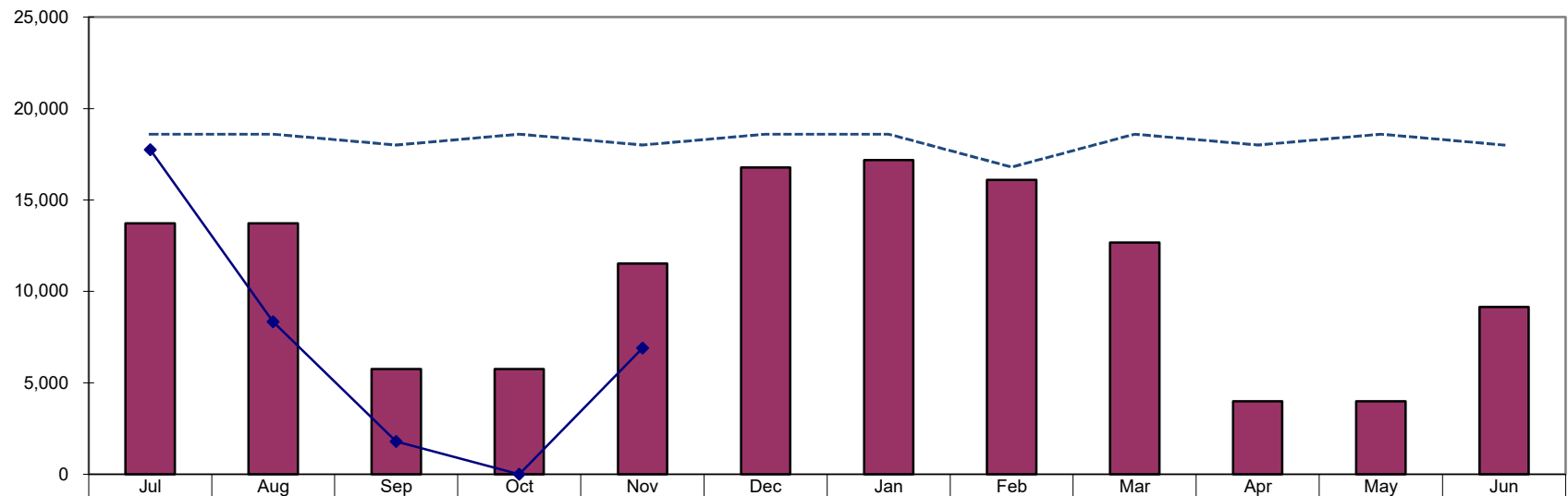
YTD:

(1) McNeil production 31% under Budget. Wood Price per Ton 5% 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.

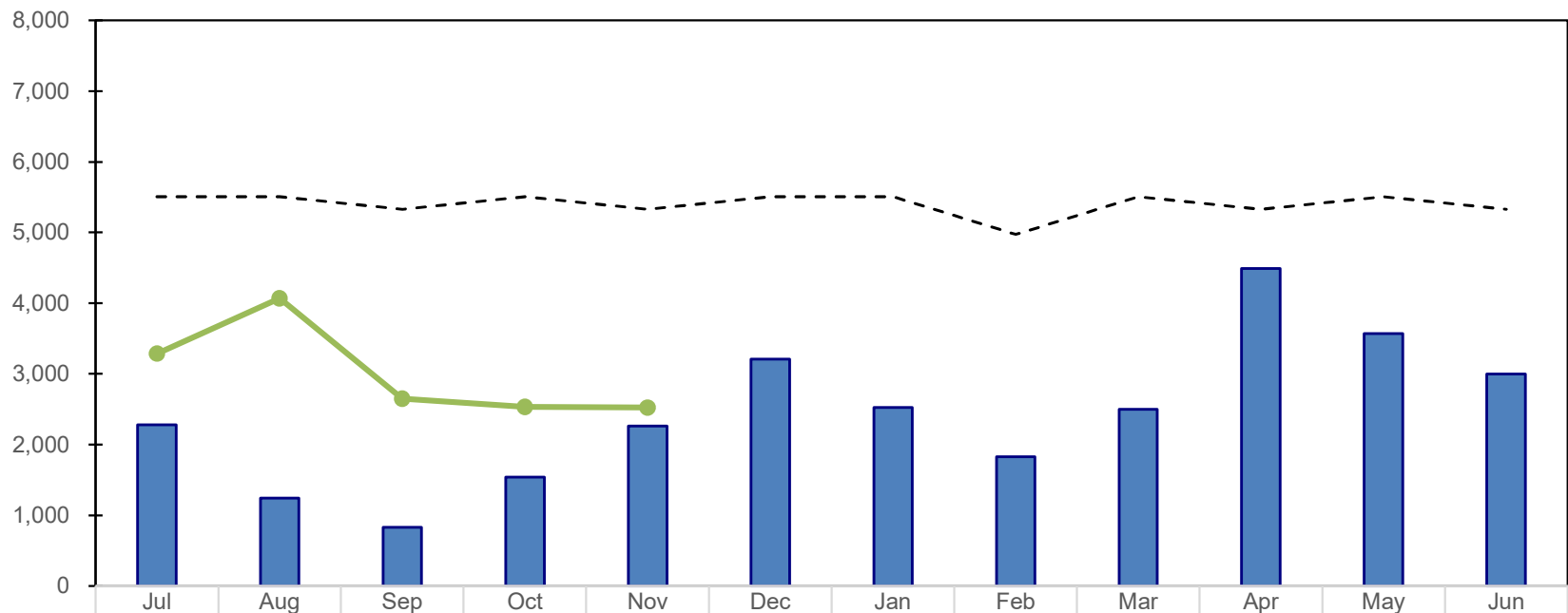
(3) GT production (445 MWh) 154% over Budget. Additional testing for B20 conversion.

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



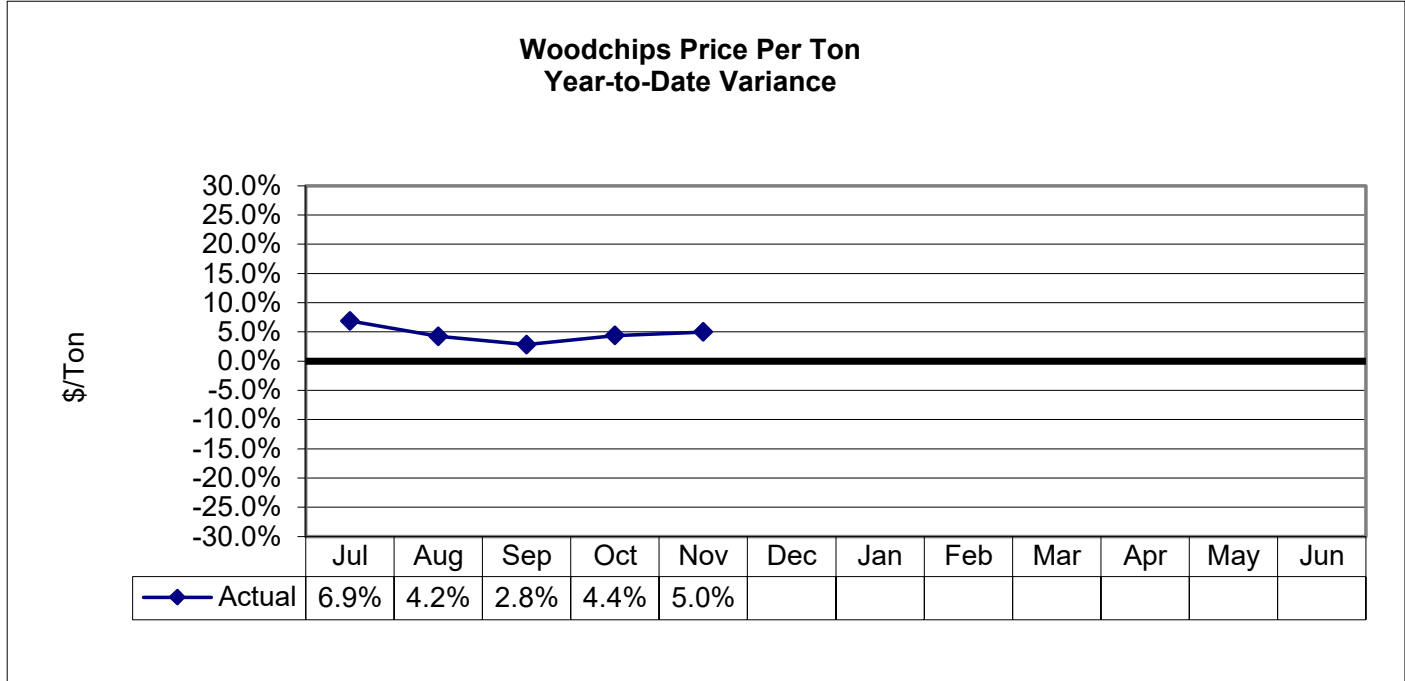
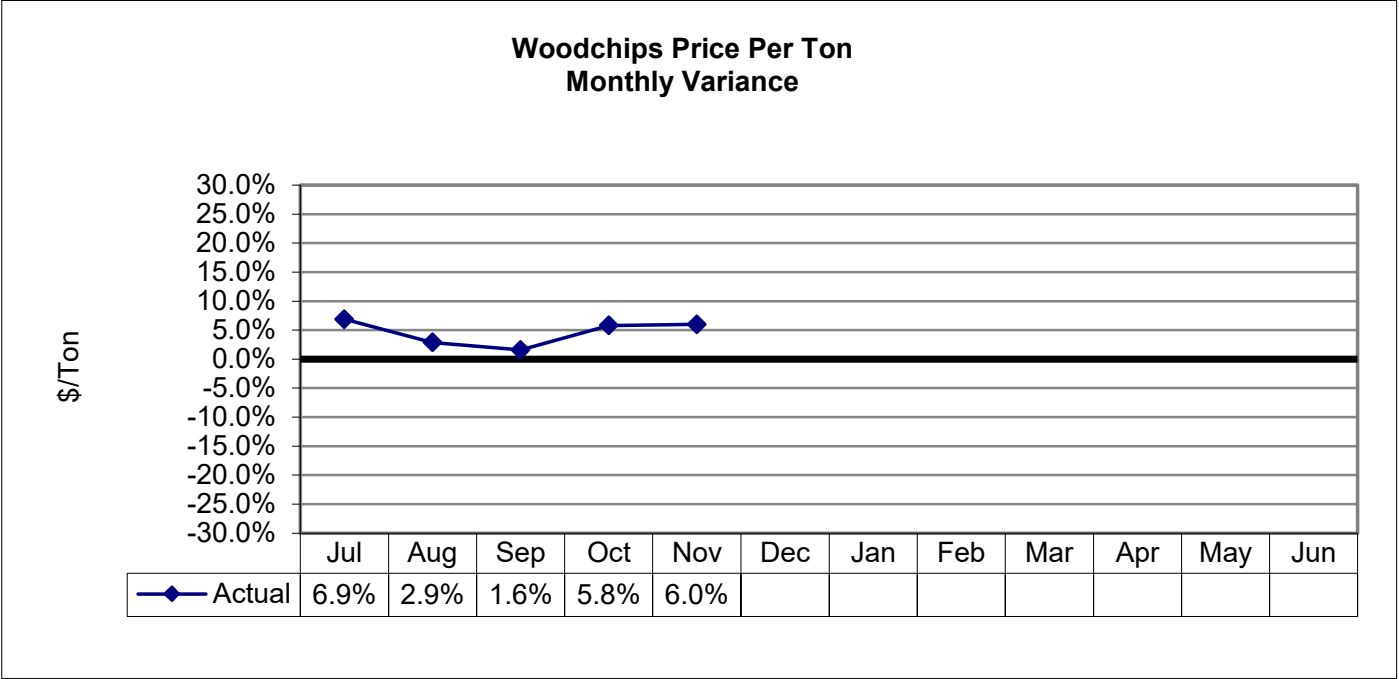
 Budget	13,721	13,721	5,764	5,764	11,529	16,785	17,185	16,113	12,671	3,993	3,993	9,152
◆ Actual	17,749	8,344	1,804	0	6,893							
 Maximum	18,600	18,600	18,000	18,600	18,000	18,600	18,600	16,800	18,600	18,000	18,600	18,000

**Burlington Electric Department
Winooski One - MWH Production
FY 2024**



■ Budget	2,281	1,243	830	1,538	2,263	3,210	2,526	1,829	2,500	4,494	3,568	2,996
—●— Actual	3,285	4,068	2,649	2,533	2,526							
- - - 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
November - FY 2024**

	(\$000)							
	Current Month				Year-to-Date			
	Budget	Actual	Variance		Budget	Actual	Variance	
<u>PURCHASED POWER:</u>								
Non-Energy (capacity)	98	63	34	(1)	528	369	159	(1)
Energy:								
Georgia Mountain Wind	328	359	(32)	(2)	1,326	1,204	121	(2)
Hancock Wind	351	311	40	(3)	1,102	856	246	(3)
VT Wind	238	214	25	(4)	883	742	141	(4)
Hydro Quebec	311	301	9		1,472	1,463	9	
Great River Hydro	170	193	(23)		869	890	(21)	
In City Solar Generators	46	38	7		397	346	50	(5)
NYPA	6	8	(1)		31	36	(5)	
ISO Exchange	(452)	(82)	(371)	(5)	29	439	(410)	(6)
ISO Exchange Adjustment	43	43	(0)	(**)	217	217	(0)	(**)
Velco Exchange	0	(1)	1		0	(1)	1	
Total Energy	1,041	1,385	(344)		6,325	6,192	133	
Ancillary Charges	(10)	(21)	11		(223)	(2)	(221)	(7)
Miscellaneous	135	46	88	(6)	754	361	393	(8)
Total Purchased Power Expense	1,263	1,474	(210)		7,384	6,920	465	

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 10% over Budget.
- (3) Production 11% under Budget.
- (4) Production 10% under Budget.
- (5) Production (McNeil (40%) and Wind (5%)) under budget. Energy Prices under Budget
- (6) Timing: REC Expense reported quarterly, budgeted monthly.

YTD:

- (1) Mystic Costs under Budget.
- (2) Production 9% under Budget.
- (3) Production 22% under Budget.
- (4) Production 16% under Budget.
- (5) Production under Budget.
- (6) Production (McNeil (31%) and Wind (16%)) under budget. Energy Prices under Budget
- (7) Forward Reserve Revenues 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 - November YTD

	Budget	Actual	Variance	% Variance	*
Labor-Regular	3,844,702	3,640,501	204,201	5%	
Labor-Overtime	206,233	205,571	662	0%	
Labor-Temporary	39,600	21,044	18,556	47%	
Labor-Overhead	1,465,618	1,482,558	(16,940)	1%	a
Outside Services	1,173,780	1,212,621	(38,841)	3%	
DSM (rebates & outside services)	845,005	742,204	102,801	12%	b
Materials & Supplies	374,869	295,847	79,022	21%	b
Insurance	320,669	280,230	40,439	13%	
A & G Clearing	(352,295)	(231,729)	(120,566)	34%	d
Other - RPS Compliance	351,143	254,958	96,185	27%	
Other	1,076,161	1,151,329	(75,168)	7%	e
Operating & Maintenance Expense	9,345,487	9,055,134	290,353	3%	

(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 (\$32,100), Safety/Environmental (\$14,200), & McNeil Plant (\$4,700).

(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 - November YTD**

Labor - Overhead	(000's)				
	Budget	Actual	Variance	%	
Pension	\$757	\$695	\$62	8%	(a)
Medical Insurance	666	762	(96)	-14%	(b)
Social Security Taxes	435	383	52	12%	(c)
Workers Compensation Ins.	150	142	8	5%	(b)
Dental Insurance	36	36	(0)	0%	(b)
Life Insurance	8	8	(0)	-2%	(b)
	\$2,051	\$2,026	\$25	1%	

Rates Table:	Budget
<i>Pension (a)</i>	13.33%
<i>Social Security (c)</i>	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 - November (\$000)

		Current Month			Year - To - Date		
	Ref	Budget	Actual	Variance	Budget	Actual	Variance
Operating Revenues							
Sales to Customers	p.3	3,953	4,030	76	22,555	22,910	355
Other Revenues		316	393	77 (a)	1,548	1,216	(333) (a)
Power Supply Revenues	p.6	1,594	1,294	(300)	4,035	3,646	(389)
Total Operating Revenues		<u>5,864</u>	<u>5,717</u>	<u>(147)</u>	<u>28,139</u>	<u>27,772</u>	<u>(367)</u>
Operating Expenses							
Fuel	p.6	716	533	183	3,722	2,766	956
Purchased Power	p.6	1,263	1,473	(211)	7,384	6,920	464
Transmission	p.6	812	925	(113)	3,832	3,901	(69)
Operating and Maintenance	p.12	1,865	1,812	54	9,346	9,055	291
Depreciation & Amortization		552	545	7	2,762	2,673	90
Revenue Taxes		51	50	0	261	258	2
Property Taxes Winooski One		42	42	(0)	210	211	(1)
Payment In Lieu of Taxes		188	174	15 (b)	940	943	(3) (b)
Total Operating Expenses		<u>5,490</u>	<u>5,554</u>	<u>(65)</u>	<u>28,458</u>	<u>26,727</u>	<u>1,731</u>
Other Income and Deductions							
Interest/Investment Income		39	150	111	208	349	141
Dividends		367	367	(0)	1,834	1,898	64
Customer Contributions/Grant Proceeds		77	4	(73) (c)	204	605	401 (c)
Gain/(Loss) on Disp of Plant		0	0	0	(135)	(0)	135 (d)
Other		0	(24)	(24)	17	125	108 (e)
Total Other Income & Deductions		<u>483</u>	<u>497</u>	<u>14</u>	<u>2,128</u>	<u>2,976</u>	<u>848</u>
Interest Expense		262	272	(10)	1,331	1,436	(104) (g)
Net Income		<u>595</u>	<u>388</u>	<u>(207)</u>	<u>478</u>	<u>2,586</u>	<u>2,108</u>

Current Month:

- (a) Energy Efficiency Program cost reimbursement was higher than planned, \$81,500.
(b) Actual Payment in Lieu of Tax (PILOT) is higher than budget assumption by \$26,960 for the year.
(c) Budget assumed customer contributions for Champlain Parkway, \$57,200 and overhead/underground billable, \$20,000.

Year - To - Date:

- (a) Energy Efficiency Program cost reimbursement was lower than planned, \$310,000.
(b) See current month.
(c) Budget assumed customer contributions for Champlain Parkway, \$114,500 and overhead/underground billable, \$89,800.
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, \$79,000. Offset by unrealized gain on investment, \$195,000.

	\$000			
	Full Year Budget	Budget	November YTD Actual	Variance
McNeil (BED 50% Share)				
Turbine Control System Upgrade/Insurance (314)	250	250	3	247
Routine Station Improvements ¹	186	74	34	40
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	1	24
B-Belt Replacement	72		0	(0)
Freight Elevator Geared Equip & Controls (311)	40	40		40
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	28		28
Cooling Tower Timber Replacement (314)	25			0
Safety Valve Replacements (312)	25	10		10
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	6		6
Continuous Emissions Monitoring Repl/Upgrade			61	(61) (a)
Other	20	6	3	3 (b)
Total McNeil Plant	1,262	693	278	414

(a) Prior year project.

(b) Budget includes rigging equipment, gas burner upgrade, chemical pump replacement, energy efficiency improvements, furniture & equipment cameras.

Hydro Production	318	281	139	142
Gas Turbine	458	277	112	165
Total Production Plant	2,038	1,251	529	722
Other				
Direct Current Fast Charger (new locations)	281	168	43	125
EV Charger Installation (Level 2)	108	43		43
Policy & Planning Research & Dev	26	13	1	12
Public Level 2 EV Charges			12	(12)
Distributed Energy Resources			7	(7)
Total Other	415	225	64	161

	\$000			
	Full Year Budget	Budget	November YTD Actual	Variance
Distribution Plant-General				
Aerial				
Pole Inspection & Replacement	161	96	8	89
Pole P2296 Replacement Flynn Avenue	57	57	10	48
Rebuild Austin Dr	68	68	23	44
Replace 2L5 Circuit from P2349-913S	935			0
Rock Point Bridge Guy Wire Relocation (Rock Pt)	40	40		40
Sunset Cliff Rebuild	53	53	27	26
Total Aerial	1,314	315	68	247
Underground				
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	649	571	78
Rebuild Summit Ridge	332	266 #	0	265
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
Battery St UG Replacement Ph 1			81	(81)
Total Underground	2,607	914	658	256
Customer Driven/City Projects				
Champlain Parkway-Billable	269	134	332	(197)
Champlain Parkway (CAFC)	(229)	(114)		(114)
Main Street Great Streets			5	(5)
Total Underground	40	20	337	(317)
Other				
ADMS Phase 1-SCADA upgrade (Repl SCADA Sys)	724	43		43
Communication Equipment Emergency Repair	29	7	3	4
Distribution Transformers	631	346	10	336
SCADA Network Switches Replacement	107	21	8	14
SCADA Servers PC's and Monitors	229	190	3	187
SCADA Video Display	721		146	(146)
Other			7	(7)
Total Other	2,441	608	176	431
Total Distribution Plant-General	6,403	1,857	1,239	618

	\$000			
	Full Year Budget	Budget	November YTD Actual	Variance
Distribution Plant - Blanket				
Aerial	171	72	47	25
Aerial (CAFC)	(65)	(29)	(26)	(3)
Underground	371	176	203	(27)
Underground (CAFC)	(135)	(61)	(3)	(58)
Meters	105	51	59	(8)
Lighting	228	58	142	(84)
Tools & Equipment - Distribution/Technicians	37	15	11	4
Replaces Failed SCADA Field Equipment	23	5		5
Substation Maintenance	17	3		3
Gas Detectors	5			0
Pulling Rope Amsteel Blue	7	7	6	1
Total Distribution Plant - Blanket	763	297	439	(142)
Total Distribution Plant	7,166	2,154	1,678	476
General Plant				
Computer Equipment/Software	902	294	136	158 (a)
Vehicle Replacement	259	112	788	(676)
EV Grant			(560)	560
Buildings & Grounds	176	148	79	69 (b)
AED Purchase	7	7		7
Total General Plant	1,343	561	443	118

(a) Budget includes IT Forward, \$61,000 and other various projects (desktop/laptop replacements, iPads replacements for line crew, Pole Mount Routers, Network Infrastructure and Virtualized Hardware Refresh). Actual includes IT Forward, \$110,000, Desktop/Laptop replacements, \$6,900 and Virtualized Hardware Refresh, \$8,000.

(b) Repair of concrete floor in truck bay has not happened yet, \$40,000 and timing of Dispatch Center.

Sub-Total Plant	\$10,962	\$4,191	\$2,714	\$1,477
Add: CAFC* reclass to "Other Income"	428	204	589	(385)
Total Plant	\$11,391	\$4,395	\$3,303	\$1,092

* Customer Advances (Contributions) for Construction.

Operating Cash - FY 2024 Monthly Ending Balance

