

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

GABRIELLE STEBBINS, CHAIR
SCOTT MOODY, VICE CHAIR
JIM CHAGNON
ROBERT HERENDEEN
BETHANY WHITAKER

To be held at Burlington Electric Department (and)
Via Microsoft Teams
[+1 802-489-6254](tel:+18024896254)

Conference ID: 297 256 666 929#

AGENDA
Regular Meeting of the Board of Electric Commissioners
Wednesday, October 26, 2022– 5:00 p.m.

- | | |
|---|----------------|
| 1. Agenda | 5:00 (5 min.) |
| 2. Minutes of the September 14, 2022 Meeting | 5:05 (5 min) |
| 3. Public Forum | 5:10 (5 min.) |
| 4. KPMG Audit Presentation (Expected Executive Session)
(Discussion and Vote): Emily Stebbins-Wheelock | 5:15 (20 min.) |
| 5. Commissioners' Corner (Discussion) | 5:35 (10 min.) |
| 6. GM Update (Oral Update) | 5:45 (10min.) |
| 7. Financials: July & August FY23 (E. Stebbins-Wheelock) | 5:55 (10 min.) |
| 8. Commissioners' Check-In | 6:05 (5 min.) |

Attest:



Laurie Lemieux, Board Clerk

If anyone from the public wishes to speak during the public forum portion of the Commission Meeting and/or wishes to be present for the Meeting of the Board of Electric Commission via Microsoft Teams, please email llemieux@burlingtonelectric.com to receive a link to the meeting, or call (802) 489-6254, Conference ID: 361 667 284#

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

TABLE OF CONTENTS
(for 10/26/2022 meeting)

***** FYI *****

- Minutes of the September 14, 2021 Meeting
- September Monthly Report
- Dashboard
- July 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.



MEMORANDUM

To: Burlington Board of Electric Commissioners
From: Darren Springer, General Manager
Date: October 18, 2022
Subject: **September 2022 Highlights of Department Activities**

General Manager

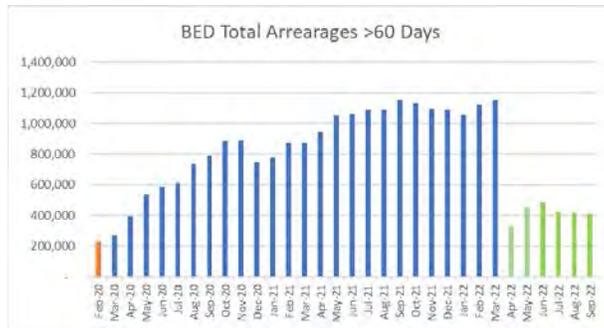
- **Winter Issues** – We will provide a more comprehensive briefing on this in November to the Commission, but there are challenges again for the region this Winter that merit attention. In particular, there is a new winter reliability program whereby ISO-NE is paying to keep liquified gas at the Mystic station and charging utilities pro rata. The costs for this are unknown going forward, and already in FY23 it has been over \$100,000 in impact to BED. ISO-NE continues to have concerns about ensuring adequate fuel supply, and this again highlights the relevance and importance of McNeil as a winter resource for BED and Vermont.
- **Legislative** – BED continues to monitor potential legislative issues that could come up this session, including relative to McNeil and the state renewable energy standard. Restrictions on what type of renewable resources count towards state requirements, restrictions on district energy, or efforts to require additional procurement from utilities that are already 100% renewable could present challenges for BED relative to our local climate goals and our costs for customers.
- **Employee Appreciation Lunch at McNeil** – We held the annual employee appreciation lunch at McNeil this year on Oct. 12 and thank Commissioner Moody for joining us for it! While windy, it was an otherwise beautiful fall day for the event, and we had the chance to honor employees celebrating 5-year anniversaries of service to the City and community, including Chery Mitchell with 35 years and Greg Thayer with 40 years!
- **IBEW Pension Retro Issue** – BED has been made aware from the City that it may now be asserting that BED should be responsible for the entire cost of the retroactive payment (approx. \$1.3 million) made to BERS related to the recent IBEW arbitration over retirement/pension. Previously the City had indicated BED would be responsible for a pro rata share (approx. \$435,000), and BED had submitted that for prior rate case and financial audit purposes. We are engaging with outside counsel the City has retained to look at this matter.

Center for Innovation - Emily Stebbins-Wheelock

- Overseeing 2022 rate case development/implementation.
- Acting supervisor of Finance & Accounting and Billing staff; onboarding new Senior Staff Accountant-Operating, Amanda Hurlbut; recruiting for Controller.
- Attended FERC New England Winter Gas-Electric Forum.
- Continued sponsorship of IT Forward implementations.

Finance & Accounting

- Finalizing FY22 year-end and working with the external auditors on the FY2022 audit.
- Supporting 2023 energy efficiency charge calculation.
- Submitted responses to Department of Public Service (DPS) rate case discovery questions.
- Monitoring receivables in response to COVID19: as of September 30, 2022, BED’s total non-current receivables had decreased \$167,892 or 23.1% compared to the end of August 2022. Arrearages >60 days were \$410,042.



Information Services

- Ongoing security awareness training and user testing.
- Continued support of SCADA/ICCP projects for Engineering and Distribution.
- Onboarded our new Senior Project Manager, Jessica Frank.
- Continued work and progress on IT Forward projects.
- Added scheduled onsite days at McNeil to better support those team members.
- Ongoing development of our new monitoring systems – already catching problems before they affect users.

Policy & Planning

- Participated in Regional Greenhouse Gas Auction 57 for Gas Turbine allowances.
- Filed additional changes to net metering rate with PUC.
- Filed rate case discovery responses with PUC.
- Ongoing monitoring of biomass task force of Climate Council.
- A public hearing on rate increase held; no members of the public attended.
- Issued RFP for removing Packetized Energy water heater control devices.
- Issued RFP for new renewable resources.
- Presentation to McNeil joint owners on site use for District Energy System.
- Received waiver of ARC wind turbine pilot project 248 criteria; filed permit application.
- WRAP tariff and contract review continuing.
- Solar test center proceeding at McNeil.
- Initial meeting with VELCO-on-VELCO use of BED fiber.
- Meeting with Boston General Services Administration team on opportunities for electrification and efficiency.

Sustainability & Workforce Development

- With Adam Rabin, Communications & Technology Specialist, recorded 3 NZE Podcast episodes: Burlingtonian Jeff Padgett on his NZE home; Tesla owner and pizza delivery person Tony Nguyen; and Amy Seidl, UVM professor and climate writer.
- Vermont Low Income Trust for Electricity (VLITE) funded project to expand EV access for low-income residents through car sharing and enhanced charging infrastructure continuing. Coordinated meeting for City Attorney, DPW, and BED leadership re necessary legal agreements between CarShare VT and DPW.
- Represented BED at the quarterly GEAR meeting hosted by VT Works for Women and featuring a discussion on equity and inclusion.
- Attended UVM Accounting Fair with Innovation Specialist and Customer Care Representative Katie Dorey.
- Along with Katie Dorey, launched monthly tours of BED facilities for new and interested existing employees.
- Orchestrated all-employee Lunch & Learn featuring consultant Michael Moser and the results of the BED Customer Survey.
- Hosted a meeting between Meg Howard, Massachusetts Clean Energy Center (MassCEC), and members of the Energy Services team on MassCEC’s “whole home pilot” and how it might serve as a possible model for BED.
- Attended Energy Action Network Annual Meeting and continued work on REV Conference planning, including the selection of individuals for several annual awards.
- Attended regional Urban Sustainability Directors Network meeting in Cambridge, MA including a visit to Cambridge’s Resiliency Hub, located in a BIPOC neighborhood, and dedicated to ensuring that the community has a safe and secure place to retreat in the event of a climate emergency or other disaster.
- Finalized plans and hosted September 17 NZE Festival including outreach to EV Preferred Dealer Network, solar contractors, multi-modal transportation specialists and others.
- Orchestrated stakeholder meeting with Champlain Housing Trust on possible policy proposals to accelerate the decarbonization of commercial buildings; assisted in the orchestration of 2030 District meeting with stakeholders likely impacted by pending policies. Attended bi-monthly meeting with the Building Electrification Institute (BEI) to discuss and hone policy development.

Center for Safety and Risk Management – Paul Alexander

Safety

- Chaired BED LMC meeting.
- Conducted fire extinguisher inspections for Pine Street.
- Conducted Operational & Generation Field Audits.
- Conducted Pole Top Rescue & Bucket Rescue annual recertifications of operations personnel.
- Researched and ordering 2 - 1 ton chain fall hoists for steel beams at GT. One is a fixed point and the other is a geared trolley.
- Conducted Confined Space Manual update meeting at McNeil.
- Submitted to BED Safety Committee for review and approval a Draft of PreJob Conference language to update that section in the BED APM.

- Completed and concluded a safety investigation.
- Conducted a Switching & Tagging List Level 3 Qualification of a System Operator.

Environmental

- Reorganized the hazardous materials accumulation areas at Pine Street and McNeil.
- Began the permit renewal process with the State of Vermont for the Title V operating permit.
- Conducted waste water sampling and reporting.
- Updated facility one-line drawings.
- Completed phosphate analyzer installation.
- Conducted tubular air heater discharge plenum inspection.
- Supervised waste pickups for McNeill, GT, Winooski One, and Pine Street.

Risk Management

- New Claims Investigations (3 total: 1 Property, 1 Power outage, 1 Liability).
- Continued research and correspondence on Coronavirus (COVID -19) issues.
- Create agreement release for VTWFW (Trailblazers) for foresters.
- Review OSMOSE pole inspection contract for engineering.
- Conduct safety investigation for 8/11/22 event.
- Edit/track changes for fire excavation procedure as part of our BCP.
- Create agenda and chair BED's Safety Committee: BSC (9/8).
- Continued Property/B&M renewal discussion with H&B.
- Create Releases for Art Hop 2022.
- Tour McNeil solar test site with Encore and BED staff.
- Forward CY'23 insurance estimates for McNeil Joint Owners.
- Review with insurance agent liability concerns/questions for lighting standards .
- Attend VT CPCU chapter meeting (9/15).
- Attend Travelers ECarma ("did you know") claims webinar.
- Conduct new employee orientation for 2 employees.
- Send 34.5 kV training question to USOLN's SME's.
- Review and forward history on Mutual Aid agreements to Distribution.
- Complete PE section for GM review .

Purchasing/General Services

- Took delivery of Mustang Select Mac-E that will replace our gas fueled vehicles with all electric to work towards our goal of Net Zero by 2030.
- Meet with the Safety Committee to update on general services issues and the progress we have made.
- Meeting on business systems work group.
- Started to meet to revitalize the Business Continuity Plan with the Center for Safety.
- Gave the first of many Pine Street tours for employees.
- Meeting with McNeil folks on Unifirst issues and help with resolution with such.

Center for Operations & Reliability – Munir Kasti

- Acting Director of Grid Services staff.
- Acting Director of Generation staff.
- Accepted resignation of Andy Elliston as Director of Engineering & Technical Services effective October 7, 2022.
- Completed interviews and recruitment of Power System Coordinator I position in Grid Services area. Alex Clark starts on 10/24/22.
- Received only one (1) application for the Director of Grid Services position posting. The applicant didn't meet the requirement of the position.
- Implemented a weekly field work inspection at McNeil plant to improve safety and accountability.
- Updated BED's 5-year generation capital plans for McNeil, Winooski One Hydro, and Gas Turbine.
- Created a Generation Purchase Request Preparation Outline document which lists the primary and back up employee(s) responsible for creating Generation purchase requests.
- Approved promotion for Mike MacDuff to move into the next tier for the Engineering Technician – Communications II position.

Engineering & Operations

- Completed changing out the pad mounted automated switch at the corner of South Prospect and Main Streets.
- Replaced the 252R reclosing device that could tie together our 1L1 and 1L4 circuits with a SCADA controlled switch.
- Completed the conversion of the circuit on Apple Tree Point Road from 4 KV to 13.8 KV system. Poles, wires, and transformers were replaced with new ones.
- Technicians discovered a rusting pad mounted transformer located at 300 Pearl Street, resulting in a scheduled power outage so our line crews and metering department could replace the transformer.
- Started work to relight University Place, involving pulling new underground conductors, installing six new street light fixtures, and removing four of the old pole-mounted streetlights. We are currently waiting for streetlight fixture parts to arrive to complete the project and remove the old wooden poles.
- Performed the first of two outages needed on Kilburn Street which involved removing a transformer bank and transferring our equipment to a new pole. We are preparing for the second outage scheduled for October 7th.
- Started reconductoring Heineberg Road and Farrington Parkway as part of BED's Net Zero program. The current circuit wire size is too small for the projected load and is being replaced with larger aluminum conductors.
- The Distribution department welcomed Ryan Sabourin to our line crew on September 20th as a 3rd Year Apprentice. Ryan comes to us from Rutland, Vermont, and has worked for both Green Mountain Power and Washington Electric Cooperative.
- Removed graffiti from BED equipment at various locations throughout the city.
- Configured, tested, and performed field and SCADA commissioning of the following devices:
 - New pad mounted switch 306/307/308/309S at Main and South Prospect Streets.
 - New SCADA-controlled motor operated aerial switch 252S on the Bike Path.

- Issued design and work order for the following projects:
 - Replacement of 350kcmil cable with 1000kcmil cable on the following sections:
 - Main and South Winooski Streets (UH#248) to City Hall Park Switch (UH#378)
 - City Hall Park Switch (UH#378) to College Street Substation
 - City Hall Park Switch (UH#378) to 748S (Saint Paul and Bank Streets)
 - Transfer to new pole P681 on Charlotte Street, which was replaced by Consolidated Communications.
 - New services to shelter pod project on Elmwood Avenue.
- Began engineering impact study of the potential addition of a 10MW electric boiler for the District Energy project near McNeil plant.
- Began engineering study of potential load additions for the CityPlace Burlington project.

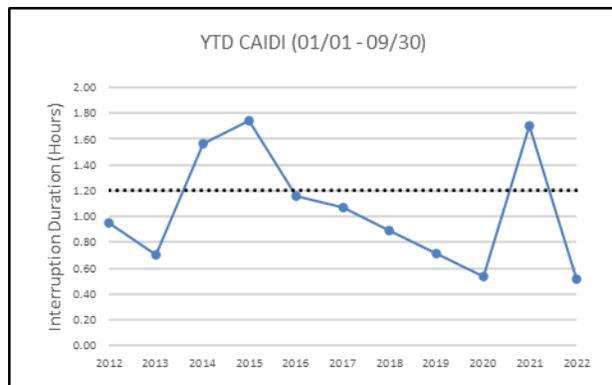
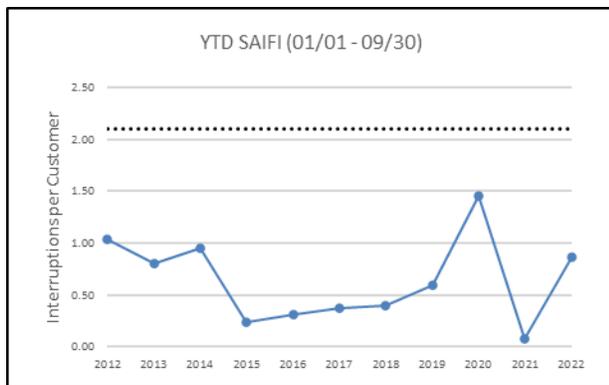
Grid Services

- Worked with vendor to install new SCADA firewalls at Pine Street.
- Continued troubleshooting SCADA alarms and working with SCADA vendor to address open issues.
- Celebrated Matthew Allen who completed the Power System Coordinator I phase one training. Matthew will be starting phase two of the Power System Coordinator I training for 8 weeks.

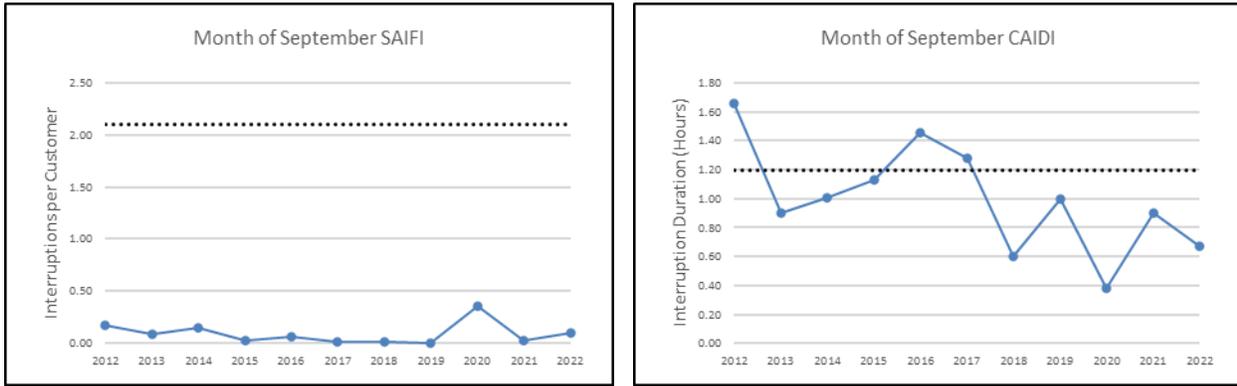
SAIFI & CAIDI Outage Metrics:

BED’s distribution system experienced 25 outages in September 2022 (5 unscheduled and 20 scheduled). BED’s SAIFI for the Month of September was 0.09 interruptions per customer and CAIDI was 0.67 hours per interruption. BED’s YTD SAIFI is 0.86 interruptions per customer and YTD CAIDI is 0.52 hours per interruption. BED experienced a high number of scheduled outages during the month of September due to the capital project to rebuild Appletree Point Road.

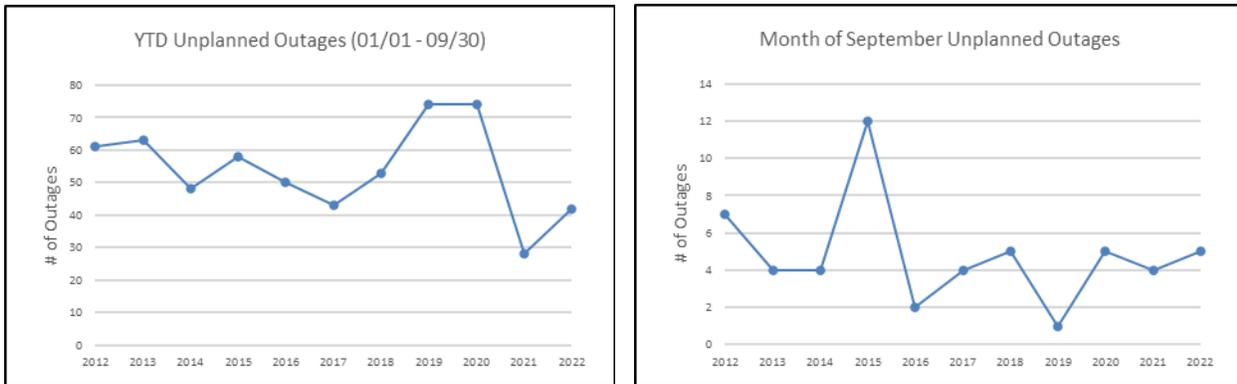
The following figure shows BED’s historical YTD SAIFI and CAIDI:



The following figure shows BED’s historical September SAIFI and CAIDI:



The following figure shows BED’s historical Unplanned Outages:



GENERATION

McNeil Generating Station

Month Generation:	1,238 MWh
YTD Generation:	17,2487 MWh
Month Capacity Factor:	3.44 %
Month Availability:	75.74 %
Hours of Operation:	25.12 hours

The McNeil station has been offline since 9/2/2022 to address some tube leaks and economic reserve in preparation for winter operations. We are focused on building fuel inventory and addressing maintenance items in the upcoming fall outage. We filled the vacant Yard Worker position.

Winooski One Hydroelectric Station

Monthly Generation:	1,578.406 MWH (157.37% of average)
YTD Generation:	18,699.473 MWH (88.29% of average)
Month Capacity Factor:	29.229 %
Annual Capacity Factor:	38.053 %
Month Availability:	99%

Winooski One started its fall fishing activities on September 15th. Winooski One completed its annual outage consisting of repairs and replacement of seals to units 2 and 3.

Burlington Gas Turbine

Month Generation:	0.000 MWh
YTD Generation:	355.686 MWh
Month Capacity Factor:	0.000%
Month Availability:	0.000%
Hours of Operation Unit A:	0.0
Hours of Operation Unit B:	0.0

The asset has been out of service since 7/20/22 undergoing troubleshooting and repairs due to the forced outage resulting from the failed power turbines (PT) A coupling shim pack. In total, four PT and generator bearings, associated with both PT A and PT B, along with the East and West generator bearing seals were found to be out of tolerance after the failure event and need repair and machining. Initial troubleshooting is complete, and repairs are underway. Unfortunately, initial bearing repairs failed QA/QC and a delay in shipment has occurred. Based on present known repair lead times and commissioning expectations at this time, the asset is expected to be available for operation in late October/early November after reassembly activities occur and vibration analysis is completed upon commissioning. The asset is unavailable for operation at the end of the month.

Solar (Airport 499 kW)

Month Generation:	52.2 MWh (-2% from previous year)
YTD Generation:	541 MWh
Month Capacity Factor:	15%
Month Availability:	100%

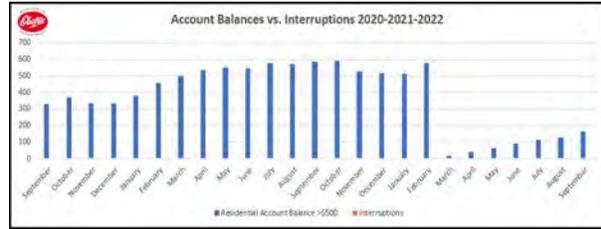
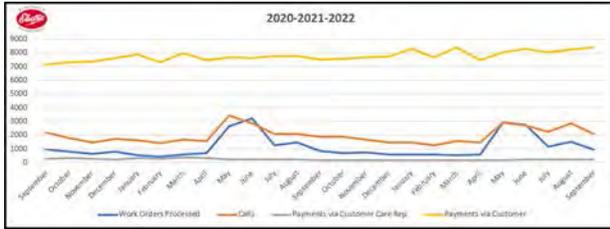
Solar (Pine Street 107 kW)

Month Generation:	9.9 MWh (0% from previous year)
YTD Generation:	97.7 MWh
Month Capacity Factor:	13%
Month Availability:	100%

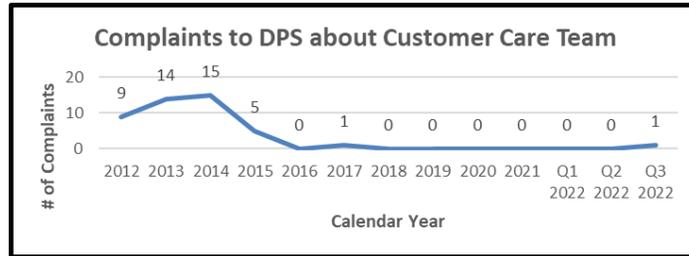
Center for Customer Care & Energy Services – Mike Kanarick

Customer Care

- **Call Answer Time (75% in 20 seconds):** September 2022 81.4%, August 69.5%, July 79.5%, June 77.5%, May 71.1%, April 85.0%, March 85.8%. September 2021 82.4%, August 81.5%, July 81.6%, June 69.3%, May 65.8%, April 91.0%, March 89.1%. Whereas last month’s deviation from prior year was 12% due to Customer Care lending a hand with cash receipts (taking one Rep off phones), this month we were only 1% down from same time last year due to hiring of temporary agency worker to administer VERAP allowing us to get another Rep back on the phones.
- **September 2022 Stats:** please see dashboard for additional metrics categories.



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



*Please note that our first complaint to the Consumer Affairs & Public Information (CAPI) Division of the Vermont Department of Public Service since 2017 was made on August 12, 2022 by a customer upset with having received a disconnection warning notice for failure to pay her bill in a timely manner. Customer Care replied to CAPI's request for an explanation and has not yet heard anything further.

Communications and Marketing

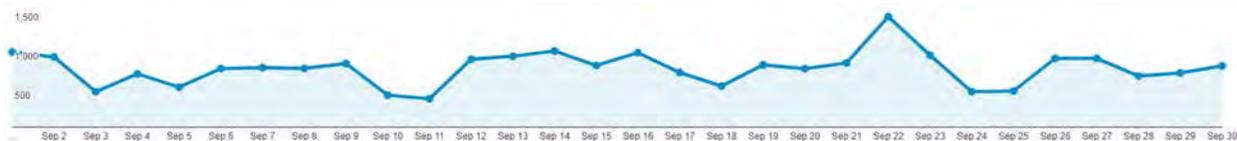
- First Annual Net Zero Energy Festival – A Supercharged Day of Family Fun: to help our community learn how to take steps to meet our Net Zero Energy city goal by 2030, Team BED hosted a successful first annual NZE Festival outdoors at BED’s 585 Pine Street offices on Saturday, September 17 from 9am to 1pm. We had activities and 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, the Vermont Lake Monsters' furry, friendly mascot. You can view media coverage of the event at: <https://www.wcax.com/2022/09/18/first-annual-net-zero-energy-festival-burlington/> and <https://www.mynbc5.com/article/burlington-residents-test-drive-electric-cars-bicycles-at-net-zero-energy-event/41263834>.
- Energy Assistance Program: new monthly bill credit program to offset by 12.5% the rate increases (3.95% proposed this year and 7.5% last year) began July 1, 2022 – boost to former Temporary Energy Assistance Program of 7.5%. Last year’s participants in Temporary Energy Assistance Program of 7.5% automatically enrolled in new program. So far, 135 (up from 134, 120, 114, 101, 99, 90, 79, 75, 69, and 58) customers have applied with 102 approved, 32 pending verification, and 1 found ineligible. Customers can learn about eligibility requirements and apply by visiting burlingtonelectric.com/rates.
- Vermont Emergency Rental Assistance Program (VERAP - erap.vsha.org): launched by State in April 2021 “to help alleviate income pressure on tenants and landlords and restore stability to the rental community.” VERAP helps tenant households with paying rent, as well as paying utility and home energy costs. Big news: the state has announced that the last day to apply will be December 31, 2022, and that any eligible amounts will be covered only for bills through the end of the year. In

addition, as of October 1, 2022, assistance was reduced from 100% to 70% for all VERAP participants, including existing renters and new applicants. **BED has approved 1,136 of 1,511** (up from 1,052 of 1,442 August, 962 of 1,288 July, 870 of 1,202 June, 810 of 1,099 May, 765 of 1,037 April, 709 of 972 March, 591 of 866 February, 560 of 818 January, 478 of 696 December, 411 of 639 November, 312 of 561 October, and 280 of 461 September) **program applicants for a total of \$991k** (up from \$899k August, \$796k July, \$706k June, \$660k May, \$620k April, \$568k March, \$474k February, \$434k January, \$353k December, \$323k November), **of which BED has received \$966k** (up from \$852k August, \$731k July, \$687k June, \$643k May, \$599k April, \$533k March, \$436k February, \$388k January, \$263k December, \$212k November).

- Vermont Homeowner’s Assistance Program (VHAP): launched by the State of Vermont through the Vermont Housing Finance Agency (VHFA) in January 2022 to help prevent home foreclosure and displacement with assistance for overdue mortgage payments, homeowners association fees, property taxes, and utilities. So far, BED has certified 61 (up from 52, 46, 34, 27, 13, 12) applicants and received \$22k (up from \$10k) in payments.
- Annual Net Zero Energy Calendar Contest: after two years of Zooming in for virtual visits with Burlington’s 4th-graders, we are back to in-person visits! Mike Kanarick, along with Vermont Energy Education Project (VEEP) Executive Director Sophia Donforth, is visiting the 4th graders in all six Burlington public elementary schools during the weeks of October 3 and 10, engaging in a presentation and conversation about energy. We are inviting the students to submit artwork that represents their visions of Net Zero Energy, energy efficiency, renewable energy, and sustainability. We look forward to judging the wonderful and creative student artwork and will select 14 winners for the 2022 calendar. This year, we plan to return to an in-person celebration for the winners, their families, teachers, and principals, complete with pizza, cake, certificates, and goodie bags.
- Burlington Farmers Market: BED will be tabling at the Burlington Farmers Market on Saturday, October 8, engaging with the Burlington community. We have already tabled it two times (once each in July and August) at the Old North End Farmers Market.
- Sustainability Academy’s 11th Annual Harvest Run for Sustainability: BED will be tabling at this event on Sunday, October 16.
- Art Hop sponsorship: BED partnered with SEABA to sponsor Art Hop the weekend of September 9-11. Similar to last year, BED’s 585 Pine Street building was part of “Light Hop,” with SEABA installing LED lighting on the building at night, in addition to lighting on other Pine Street buildings. BED also hosted a sculpture that spells out the word “YES” in giant letters. BED further provided lineworker pens, activity coloring books, and grocery store bags for Kids Hop.
- North Avenue News: our October column is titled McNeil Generating Station: Myth vs. Fact. We did not post an ad in this issue.
- September 2022 Website and Facebook Highlights
 - Overall site-wide pageviews for September 2022 = 22,639
 - August = 27,972
 - July = 23,885
 - June = 24,859
 - May = 29,609
 - April = 28,428
 - March = 23,967

- February = 17,126
- January = 19,000
- December = 18,374
- November = 19,898
- October = 20,598
- September = 21,327
- August = 22,962
- July = 23,727
- June = 25,159
- May = 28,428
- April = 22,745
- March = 21,463
- February = 18,773
- Unique homepage pageviews for September 2022 = 6,921
 - August = 8,895
 - July = 8,565
 - June = 7,860
 - May = 8,211
 - April = 7,499
 - March = 7,282
 - February = 5,831
 - January = 6,380
 - December = 6,346
 - November = 6,379
 - October = 6,857
 - September = 6,905
 - August = 8,464
 - July = 7,931
 - June = 7,484
 - May = 7,499
 - April = 5,404
 - March = 5,775
 - February = 5,165

- Full site traffic for September 2022



High traffic on September 22 due to an outage.

- Visitors by website page – some columns indicate n/a as the page-specific URLs changed when we launched our new website.

page title	Sep 2022	Aug 2022	July 2022	June 2022	May 2022	Apr 2022	Mar 2022	Feb 2022	Jan 2022	Dec 2021	Nov 2021	Oct 2021	Sep 2021	Aug 2021	July 2021	June 2021
Burlington Electric Department	8080	10549	8565	9206	9740	7384	8777	6657	7237	7353	7246	8186	7845	8464	9164	9085
My Bill	2850	3201	3143	3207	2811	2519	2758	2585	3122	2670	2737	2825	2943	2846	3033	3295
Waste Wood Yard	920	1034	1070	1386	1928	1999	653	237	527	804	1649	1069	1045	1082	1212	1160
Report A Problem	455	1646	103	188	233	189	516	70	95	385	93	235	119	79	153	135
Stop or Start Service	407	841	738	951	2184	464	323	202	248	279	306	298	454	867	803	1079
E-billing	330	362	443	524	287	234	266	266	340	345	274	276	376	345	522	451
Contact Us	553	862	530	654	784	489	555	360	445	439	448	460	577	642	638	731
McNeil Generating Station	624	410	425	482	648	726	557	255	374	379	644	443	347	339	447	429
Heat Pumps	435	579	589	490	638	512	559	331	382	264	394	477	406	496	567	369
Rebates	627	689	1129	754	920	636	917	488	450	377	501	537	566	571	621	795
Rebate Center	597	876	852	934	1026	688	732	508	549	419	499	546	530	667	679	319
Green Stimulus	66	32	37	29	50	53	121	49	57	27	49	91	106	113	138	233
Stop or Start Service	407	841	738	951	2184	464	323	202	248	279	306	298	454	867	803	1079
Leadership Team	224	206	159	174	185	284	269	237	265	196	222	206	243	276	228	240
Rates & Fees	289	228	225	208	254	220	246	180	221	203	166	214	178	132	143	247
Usage Tracker Registration	124	177	118	128	113	77	145	120	156	142	127	114	94	154	177	223
RFP	419	268	225	335	268	211	534	597	362	452	270	243	452	497	455	158
Residential Ways to Save	142	187	194	199	249	171	155	146	147	157	164	156	172	191	172	220
Electric Vehicles	355	497	483	324	273	274	356	296	222	244	296	289	272	265	245	332
E-Bikes	173	292	375	202	260	167	206	89	78	76	78	161	168	265	207	192
Net Zero Energy News	37	25	25	32	24	57	27	30	33	26	32	67	204	129	115	178
Electric Vehicles	355	497	483	324	273	274	356	296	222	244	296	289	272	265	245	332
COVID-19 Updates	n/a	n/a	n/a	n/a	n/a	10	11	11	17	16	22	79	153	166	397	540
Our Energy Portfolio	57	102	90	55	80	79	124	54	58	48	88	104	96	59	42	n/a
Lawn Care	110	135	249	259	472	121	149	31	n/a	n/a						
Electric Lawn Mowers & Leaf Blowers	n/a	n/a	n/a	n/a	n/a	n/a	n/a	23	49	39	94	117	150	133	184	229
RFP Detail	214	143	35	93	151	110	422	413	214	n/a	94	49	258	334	185	n/a
Defeat The Peak	15	333	242	15	25	9	16	11	8	12	12	n/a	11	137	22	155
Commercial Ways to Save	31	40	46	48	43	42	63	45	30	43	37	41	98	55	39	62

- Top-performing September Facebook posts

Boosted post for 1st annual Net Zero Energy Festival

Check presentations from this year's Defeat the Peak program

Energy Services

UVM

- Stafford Greenhouse / HAF Ventilation Fan Replacement – At UVM's request, BED is completing an analysis of the electrical energy savings to replace 14 existing HAF fans (1/3 and 1/4 HP) in the greenhouses with the same number of 1/10 HP HAF fans. Preliminary calculations show significant savings on investment, and a rebate offer has been made to the greenhouse facility director.
- Trinity Campus Redevelopment Study - Working with UVM to study a variety of energy related design options.
- Retro-commissioning Service - BED and VGS are working with UVM on potentially hiring local retro-commissioning contractors to help finalize several HVAC related projects on campus. UVM has lost a number of key staff members and is seeking temporary contract help.

UVMCC

- Secondary Chilled Water Balancing – The Miller Building addition, finished several years ago, created a significant new load on the central chiller plant. To optimize chiller efficiency, the chiller secondary loop needed to be re-balanced so optimal differential pressures can be maintained. This project was initiated in late 2019, but the Covid lock-down created a lengthy delay in implementation. The balancing process is now fully completed. Because DDC historical data trends are not available in the necessary timeframe, the process was set up to simulate the pre-project HVAC conditions and obtain DDC trending data for comparison to the post-project energy usage. This simulation test was run last month. DDC data from the event has been received as well as an abbreviated set of post project data. BED is in the process of analyzing what we have received and

gathering further information as needed to complete the analysis.

Other Services

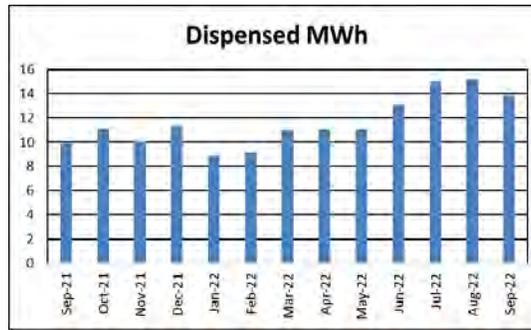
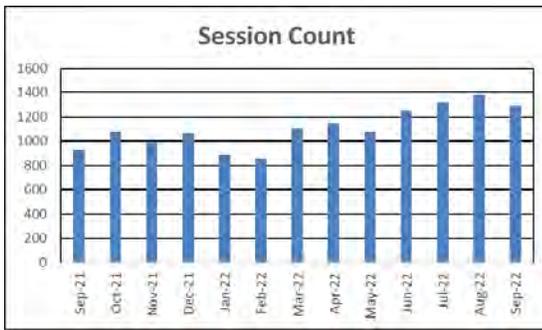
- Weatherization coordination with VGS - VGS requested electrical account usage histories this month (with customer permission) for 3 SF and 2 MF buildings (representing 9 living units) for the purpose of weatherization audit preparation and building energy use analysis. This brings the total TTD (2021-2022) requests to 141 SF and 107 MF buildings (representing 355 living units). The increase in multifamily building interest in the VGS weatherization program is being driven by the Burlington Minimum Energy Efficiency Rental Housing Ordinance.
- Continue to collaborate with VGS staff to target Burlington multifamily buildings (owners) that have received a VGS audit, analysis, and incentive offer but have not moved forward with their projects. These buildings will fall under the new Burlington Minimum Housing Standard Ordinance at some point in the next several years. The focus for approaching this group and encouraging them to act is to add a supplemental BED incentive where appropriate, and to also notify them that the VGS incentive share will soon be reduced from 75% of project cost to 50% of project cost.
- YMCA / HVAC Recommissioning – This is a new building constructed less than three years ago. It has complex HVAC systems, includes two indoor pools, and has had operational issues since it was first occupied in early 2020. It is also using significantly more electrical and natural gas energy than originally predicted by the building energy model. BED is working with the facilities director and controls contractor to help determine where energy savings opportunities may be found. Some incredibly good progress has been made in resolving issues that have existed since the building opened. Also investigated this month are concerns regarding the condensing boiler system. The boilers are running at too high a temperature to condense, and they also suffer from chronic short cycling. The boiler temperatures associated with feeding the heat pump loop are not compatible with the boiler temperatures necessary for the domestic hot water system. Thus, the two boilers must run simultaneously at radically different supply temperatures, and they are oversized for this type of design. VGS will be working with the original engineering company to develop a solution. BED is also assisting in the process.
- Green State Gardener / Indoor Cannabis Grow Facility – This company on Pine St. is in the process of fitting-up an existing portion of their building into an indoor cannabis growing facility. The area is quite small – 600 SF. This month BED received additional detail on the design and operation of the facility as well as the equipment being used.
- North Avenue Alliance Church / HVAC Retrofit – This church was paying excessive electrical costs due to old equipment and an oversized chiller reaching the end of life. Engineering analysis recommended HVAC improvements that came with considerable capital costs. The project has been in progress for some time and was completed two months ago. A final BED site visit with the project engineer was completed last month. Preliminary analysis of pre- and post-project AMI data showed a large reduction in both KWH usage and demand. A more formal analysis will be completed when more data is available.
- 100 Bank St. Office Building / 6th Floor Fit-up and DDC Upgrade – This major office building in downtown Burlington has recently been undergoing a series of HVAC upgrades to improve the ventilation and cooling systems. With a new tenant moving in on the 6th floor, another opportunity has arisen to upgrade another portion of the building's DDC system. There are also several performance and comfort issues that have been identified. Last month BED had a meeting with the

owner to identify the next steps. This month another meeting was held which created a more detailed process to complete the next steps in the investigation, in particular to identify apparent significant leaks in the ventilation ducts.

- City Market Downtown / Refrigeration Upgrades – A meeting was held this month at this grocery store with the refrigeration contractor, BED, and a refrigeration consultant from VEIC. Due to a number of recent refrigeration system enhancements the low temperature compressor rack in the store is now oversized. This has caused issues with proper hot-gas defrosting of the freezer cases as well as short cycling of compressors. Next steps were developed to alleviate the problem. The store is also strongly considering the installation of a 16-point permanent refrigerant leak detection system. BED has offered to supply a rebate for both of the above projects, the rebate amounts will be available once project details and costs are worked out.
- Jakes Market / HVAC Modifications – BED completed a site visit to this full-service grocery store in the Old North End of Burlington. Excessive temperature and humidity in their loading dock area caused a series of refrigeration faults which resulted in the failure of one of the rack compressors. Additional cooling and dehumidification via heat pumps will be added to the space to hopefully prevent any similar equipment events in the future.
- Crystal Cottage High Bill Complaint – This retail shop at 176 Battery St. contacted BED with a high-bill inquiry. There were concerns that cross-wiring in the building was causing their electric bill to run higher than it should. BED analysis of the AMI data from the account confirmed that the electrical costs were largely due to electric cooling costs. No evidence of cross wiring could be found in the data.
- Hula Office Complex / Lakeside Ave – This two-building new construction project has been in operation for well over a year. It is notable in that all heating and cooling is provided by ground-source heat pumps supplied by an open loop geothermal system. The HVAC system does have some natural gas back-up, but we are seeing no usage to date. The calibration of the original energy model to the actual electrical usage of the building is now completed. This involved more investigative and modeling work than was originally envisioned due to Covid impacting full building occupancy. Final energy savings are higher than originally predicted. This is driven by the great attention to detail on the thermal shell (air leakage control and insulation), a 93%+ efficient energy recovery ventilation (ERV) system and optimizing the building energy management control system (BEMS). HULA is our largest single energy efficiency savings projects and Tier 3 projects to date, and a showpiece project representing our NZE efforts as it combined the forces of BED’s EEU and Tier 3 programs.
- Burlington City Arts / Major Renovation – The architects for this major renovation supplied BED with the recently completed design documents for the project. This gave us the opportunity to provide feedback as to the direction of the design and how it will fit into our energy modeling rebate process. These BED comments were sent back to the design team earlier this month.

Electric Vehicles

- The EVSE dispensed a total of 13.9 MWh and supported 1,296 sessions.
- The top 3 sales were 76, 89 & 82 kWh and occurred at the Cherry St. garage and Colchester Ave.
- The top 10 sessions (0.77% of total) accounted for 5.12% (710 kWh) of the total monthly sale. The ten sessions ranged from 61 kWh-82 kWh.
- The EVSE served 645 unique drivers.
- Session Count and Dispensed Energy plots from the public charging network are shown below.



Number of EV and PHEV rebates to date – 411 418 (of this 75 LMI rebates to date as shown below)

- New All Electric Vehicle – 170
- New All Electric Vehicle (LMI) – 31
- New PHEV – 109
- New PHEV (LMI) – 39
- Used All Electric Vehicle – 34
- Used All Electric Vehicle (LMI) – 4
- Used PHEV – 17
- Used PHEV (LMI) – 1
- New All Electric Vehicle (\$50K plus) – 12
- New PHEV (\$50K plus) – 1
- Number of customer loans with lending partners to date – 5
- Number of customers currently participating in the new EV Rate – 149
- Number of EV home charging stations rebates to date – 57

Electric Lawn Equipment to Date

- Number of e-mower rebates to date – 544 (11 commercial & 533 residential)
- Number of e-leaf blowers to date – 48
- Number of Residential e-Trimmers – 42
- Number of Residential e-chainsaws – 8

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

- Total Number of Heat Pump Technology rebates to date- 816 (of this 124 LMI rebates to date as shown below)
 - Number of ductless heat pumps to date – 493
 - Number of LMI eligible ductless heat pumps to date – 103
 - Number of centrally ducted heat pumps to date – 173
 - Number of LMI eligible centrally ducted heat pumps to date – 16
 - Number of air-to-water heat pumps to date – 1
 - Number of commercial VRF heat pump systems to date – 2
 - Number of geo-thermal heat pump systems to date – 1
 - Number of heat pump hot water heaters to date – 26
 - Number of LMI eligible heat pump hot water heaters participants to date – 5

Electric E-Bikes to Date

- Number of e-bike rebates to date – 382

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

- Number of induction Stovetops rebates to date – 25

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

- Number of snow blower rebates to date – 2

BED 2022-2023 Strategic Direction Dashboard

Metrics by Strategic Initiative	Target	Sept 2022 Actuals	Aug 2022 Actuals	July 2022 Actuals	June 2022 Actuals	May 2022 Actuals	Apr 2022 Actuals	Mar 2022 Actuals	Feb 2022 Actuals	Jan 2022 Actuals	2021 Yearly Actual	2020 Yearly Actual	2019 Yearly Actual	2018 Yearly Actual
Engage Customers and Community														
Call answer time 75% within 20 seconds	75%	81%	70%	79%	75%	71%	85%	86%	85%	90%	avg 82%	avg 81%		
Delinquent accounts >\$500	0	166	127	111	89	63	40	16	571	513	avg 529	avg 201		
Disconnects for non-payment	0	0	0	0	0	0	0	0	0	0	0	45		
# of residential weatherization completions	10	1	1	1			0	0	0	0	5	3	11	11
Weatherization completions in rental properties		1	1	0		0	-	0	0	0	0	0	TBD	TBD
# or % of homes or SF weatherized		TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0
Champ Challenge weatherization participants		0	0	0	0	0	2	2	3	3	0	1	TBD	TBD
# of commercial building with improved thermal envelopes		0	0	0	1	0	0	0	1	0	5	5	0	0
% of EEU charge from LMI customers spent on EE services for LMI customers		TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Strengthen Reliability														
SAIFI (AVG interruptions/customer) (annual target)	< 2.1	0.09	0.36	0.02	0.04	0.06	0.002	0.23	0.01	0.06	0.22	1.50	1.03	0.43
CAIDI (AVG time in hrs to restore service) (annual target)	< 1.2	0.67	0.50	0.89	1.23	0.31	12.05	0.38	1.4	0.12		0.55	0.75	0.93
Distribution System Unplanned Outages (annual target)	82	5	8	5	5	2	3	3	7	4	44	90	98	78
McNeil Forced Outages	0	1	2	1	0	3	0	1	0	2	5	21	TBD	TBD
W1H Forced Outages	0	1	0	0	0	2	2	0	0	0	9	2	TBD	TBD
GT Forced Outages	0	1	1	1	0	0	0	0	0	0	2	3	TBD	TBD
Invest in Our People, Processes, and Technology														
Avg. # of days to fill positions under recruitment	120	94	90	80	87	99	96	76	102	115	68	179		
# of budgeted positions vacant	0	10	13	10	7	7	9	9	9	10	avg 9	6	NA	NA

BED 2022-2023 Strategic Direction Dashboard

Metrics by Strategic Initiative	Target	Sept 2022 Actuals	Aug 2022 Actuals	July 2022 Actuals	June 2022 Actuals	May 2022 Actuals	Apr 2022 Actuals	Mar 2022 Actuals	Feb 2022 Actuals	Jan 2022 Actuals	2021 Yearly Actual	2020 Yearly Actual	2019 Yearly Actual	2018 Yearly Actual
Innovate to Reach Net Zero Energy														
<i>Tier 3 Program</i>														
# of residential heat pump installs		30	20	41	22	12	9	26	13	20	315	203	10	0
# of commercial heat pump installs		0	1	0	0	0	0	0	1	1	4	13	0	0
# of residential hot water heat pump installs		1	1	2	1	1	1	0	1	0	14	6	4	0
# of commercial hot water heat pump installs		0	0	0	0	0	0	0	0	0	0	0	0	0
Heat pump rebates		31	30	41	22	12	9	26	14	21	328	212	0	0
Heat pump hot water heater rebates		1	1	2	1	1	1	1	1	0	15	3	0	0
LMI heat pump rebates		0	8	6	6	2	4	4	6	0	28	6	4	0
Heat pump technology installs in rental properties		1	1	0	2	0	0	1	1	1	14	9	TBD	TBD
LMI heat pump hot water heater rebates		0	0	0	0	0	0	1	0	0	2	0	1	0
EV rebates - new		7	4	3	3	2	3	5	2	6	67	14	36	44
EV rebates - pre-owned	See NZE Roadmap Goals below	0	2	1	2	3	3	3	0	1	7	8	2	0
LMI EV rebates		0	0	1	3	0	1	0	0	0	11	7	7	0
PHEV rebates - new		0	1	2	6	1	1	6	0	0	41	10	17	14
PHEV rebates - preowned		1	2	2	1	1	0	1	0	1	6	5	3	0
LMI PHEV rebates		0	1	0	2	2	1	5	1	1	13	6	2	1
Public EV chargers in BTV (total)		27 ports	27 ports	27 ports	27 ports	27 ports	27 ports	27 ports	27 ports	27 ports	27 ports	27 ports	14	14
Public EV charger energy dispensed (kWh)		13,900	15,200	15,000	13,100	11,000	11,000	11,000	9,200	8,860	86,570	35,690	78,000	67,931
Home EV charging station rebates		0	0	0	0	0	0	0	0	1	32	20	12	0
EV rate charging customers (total)		149	143	135	129	123	116	109	106	102	40	40	28	4
Level 2 charger rebates		0	0	0	0	0	0	0	0	0	10	0	1	0
Level 1 charger rebates		0	0	0	0	0	0	0	0	0	0	1	0	0
E-bike rebates		31	21	31	4	12	8	0	3	4	88	36	65	62
E-mower rebates		13	20	31	56	23	4	1	1	2	154	95	142	NA
E-forklift rebates		0	1	0	0	0	0	0	0	0	0	0	0	0
MWE of Tier 3 measures installed		1,079	2,905	2,967	1,883	1,890	957	2,013	829	1,730	23,763	35,112	3,342	
% Tier 3 obligation met with program measures	100%	95%	89%	72%	55%	43%	32%	27%	15%	10%	159%	283%	31%	30%
<i>Net Zero Energy Roadmap Goals</i>														
# of solar net metering projects installed		2	3	2	2	7	2	3	1	4	29	24	33	52
No. of homes receiving NZE Home Roadmaps		0	0	0	1	1	0	2	1	2	10	7		
Residential heat pumps for space heating (no. of homes)	2022: 8615	NA	NA	NA	NA	NA	NA	NA	NA	NA	1235, 20% of goal	891	572	NA
Commercial heat pumps for space heating (1000 SF floor space served)	2022: 5397	NA	NA	NA	NA	NA	NA	NA	NA	NA	405, 11% of goal	374	374	NA
Residential heat pumps for water heating (no. of homes)	2022: 4365	NA	NA	NA	NA	NA	NA	NA	NA	NA	108, 4% of goal	108	87	NA
Commercial heat pumps for water heating (1000 SF floor space served)	2022: 1019	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0	-	NA
EV registrations in BTV (light-duty)	2022: 2294	NA	NA	NA	NA	NA	NA	NA	NA	NA	549, 45% of goal	361	296	NA
Greenhouse gas emissions (1000 metric tons CO2)	2022: 150	NA	NA	NA	NA	NA	NA	NA	NA	NA	188, 114% of goal	185	214	NA
Fossil fuel consumption (billion BTU)	2022: 2418	NA	NA	NA	NA	NA	NA	NA	NA	NA	3220, 120% of goal	3,182	3,660	NA

BED 2022-2023 Strategic Direction Dashboard

Metrics by Strategic Initiative	Target	Sept 2022 Actuals	Aug 2022 Actuals	July 2022 Actuals	June 2022 Actuals	May 2022 Actuals	Apr 2022 Actuals	Mar 2022 Actuals	Feb 2022 Actuals	Jan 2022 Actuals	2021 Yearly Actual	2020 Yearly Actual	2019 Yearly Actual	2018 Yearly Actual
<i>Demand Response</i>														
Manage Budget and Risks Responsibly														
<i>Safety & Environmental</i>														
No. of workers' compensation/accidents per month	0	0	1	1	2	3	3	0	1	0	4	8		
Total Paid losses for workers' compensation accidents (for the month)	annual	\$9,005	\$12,122	\$8,264	\$79,665	\$5,153	\$3,573	\$382	\$396	\$757	\$ 93,612	\$ 165,402	\$38,288	\$ 255,273
Lost Time Incident Rate (days/year) (Dec numbers reflect annual results)	<= 3.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	0.93	0.89	1.89
Lost Time Severity Rate (days/year) (Dec numbers reflect annual results)	<= 71	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	41.71	78.2	109.75
Lost work days per month	0	24	0	17	8	0	0	0	0	0	0.0	45		116
NOx reporting levels to EPA (Quarterly) (lbs/mmbtu)	<0.075	0.068	0.068	0.1	0.065	0.062	0.0	0.07	0.07	0.071	0.07	0.07		
# of reported spills, waste water incidents (monthly)	0	1	2	1	2	0	0	0	0	0	4	4		
Phosphorus levels to DEC in lbs (monthly/yearly total)	<0.8/37	0.005/0.69	0.006/0.78	0.007/0.89	0.109/0.92	0.024/0.86	0.119/1.00	0.104/1.52	0.067/1.71	0.145/1.83	2.028		1.169	
# of new power outage claims reported (monthly)	1	1	0	0	2	0	0	0	0	0	7	4		
# of new auto/property/other liability claims reported (monthly)	2	2	3	5	3	0	4	2	0	0	18	27		
<i>Purchasing & Facilities</i>														
# of Purchase Orders for Inventory (Target: avg for winter months)	42	56	30	57	27	50	59	56	39	70	644	593		
\$ value of Purchase Orders for Inv. (Target: avg dollars spent during winter)	\$78,000	\$275,925	\$146,006	\$129,412	\$179,709	\$394,020	\$753,161	\$626,698	\$231,292	\$566,870	\$ 3,278,620	975,531		
# of stock issued for Inventory (Target: avg during winter months)	320	565	503	477	562	526	446	531	556	387	4,402	4,545		
\$ value of stock issued for Inventory (Target: avg. during winter)	\$ 65,000	\$ 168,160	\$ 115,040	\$ 92,581	\$ 333,014	\$ 114,763	\$ 231,454	\$ 141,090	\$ 71,107	\$ 39,432	855,456	1,086,478		
# of posters pulled from poles monthly (Target: goal to remove each month)	58	61	171	48	36	117	42	164	76	96	2,728	627		
# of Spark Space and Auditorium setup/breakdowns monthly (Target: Covid impact)	3	15	11	8	13	11	12	7	3	2	88	87		
<i>Finance</i>														
Debt service coverage ratio	1.25		Not avail	3.82	Not avail	4.93	4.59	5.47	5.26	5.15	NA-FY basis	NA-FY basis	NA-FY basis	NA-FY basis
Adjusted debt service coverage ratio	1.5		Not avail	1.03	Not avail	1.33	1.2	1.5	1.43	1.39	NA-FY basis	NA-FY basis	NA-FY basis	NA-FY basis
Days unrestricted cash on hand	>90		Not avail	99	Not avail	140	139	138	145	142	NA-FY basis	NA-FY basis	NA-FY basis	NA-FY basis
<i>Power Supply</i>														
McNeil generation (MWH) (100%)	per budget	1,238	25,511	33,526	13,093	3,787	0	25,342	33,825	36,165	273,355	192,696		
McNeil availability factor	100%	76%	74%	91%	39%	11%	60%	87%	100%	96%	80%			
McNeil capacity factor	per budget	3%	69%	90%	36%	10.2%	0%	68%	100.7%	97.2%	62.4%			
Winooski One generation (MWH)	per budget	1,578	376	649	1,309	3,046	4,495	3,850	1,751	1,635	24,752	21,194		
Winooski One availability factor	100%	99%	99%	99%	98%	97%	97%	99%	98%	98%	97%			
Winooski One capacity factor	per budget	29%	7%	12%	55%	55%	84%	69%	35%	30%	37%			
Gas Turbine generation (MWH)	NA	0.0	0	55.2	77.3	40	16	137.4	13.7	16.1	373	441		
Gas Turbine availability factor	100%	0%	0%	64%	100%	100%	100%	97%	100%	93%	96%			
Gas Turbine capacity factor	NA	0%	0%	0.39%	0.56%	0.23%	0.1%	0.8%	0.09%	0.09%	0.21%			
BTV solar PV production (mWh)		454	620	706	637	687	488	396	235	156	5,015	5,182		
Cost of power supply - gross (\$000)			Not avail	\$4,078	\$5,481	\$3,649	\$2,565	\$2,718	\$2,409	\$2,116	\$30,285	\$31,081		
Cost of power supply - net (\$000)			Not avail	\$4,078	\$4,019	\$1,331	\$2,565	\$2,718	\$746	\$2,116	\$22,134	\$23,388		
Average cost of power supply - gross \$/KWH			Not avail	\$0.13	\$0.19	\$0.14	\$0.11	\$0.10	\$0.09	\$0.07	\$0.09	\$0.10		
Average cost of power supply - net \$/KWH			Not avail	\$0.13	\$0.14	\$0.05	\$0.11	\$0.10	\$0.03	\$0.07	\$0.07	\$0.08		

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

Wednesday, September 14, 2022, 5:30 pm

The regular meeting of the Burlington Electric Commission was convened at 5:31 pm on Wednesday, September 14, 2022 at Burlington Electric Department at 585 Pine Street, Burlington, Vermont and virtually through Microsoft Teams.

Channel 17 was present to record this meeting.

Commissioners Herendeen, Moody, Stebbins, and Whitaker were present. Commissioner Chagnon was absent.

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

Staff members present via Microsoft Teams included Erika Ferland, Betsy Lesnikoski, and Katie Morris.

1. Agenda

Mr. Springer asked that the agenda be amended to remove Agenda Item #7 July Financials. It was the plan to have the financials ready for the meeting, but due to preparation for the audit and staffing challenges, we were unable to have those final financials ready and will present at the October meeting. The Commission agreed to postpone the financials until the October meeting.

2. July 13, 2022 Meeting Minutes

Commissioner Whitaker will be arriving late to the meeting, the vote on the minutes was postponed until she arrives. This is due to Commissioner Moody's need to abstain as he was not in attendance at the July meeting, and the vote requires a quorum.

Commissioner Whitaker arrived at 5:40 pm, at which time the Commission voted on the July meeting minutes.

Commissioner Herendeen asked that the minutes be amended by changing any reference to IES Standards to IES Recommendations.

Commissioner Herendeen made a motion to approve the minutes of the July 13, 2022 Commission Meeting as amended; the motion was seconded by Commissioner Whitaker and approved by

Commissioners Herendeen, Whitaker, and Stebbins. Commissioner Moody abstained, as he was not present at the July meeting.

3. Public Forum

Mr. Bill Ellis, Esq., from McNeil Leddy, and Sheehan law firm was present via Microsoft Teams, Mr. Alan Bjerke, Mr. Gary Causer, Mr. Mike Hyland, NEPPA, and Mr. Michael Moser, Moser Consulting, were present in-person

Mr. Bjerke is in attendance to discuss BED's fee of \$30 for initiating electric service. Mr. Bjerke stated that, as a housing provider, he has a standing order with BED so that when the power is disconnected for any reason in one of his apartments, the power account is switched to Mr. Bjerke's existing account. Mr. Bjerke stated that the account is sometimes switched for a couple of days between one tenant moving out and a new one moving in, and this initiates a \$30 *"Initial Service Fee"*. Mr. Bjerke stated that he typically will receive a bill from BED for \$30 plus a \$3.00-\$4.00 fee for the actual electricity used during the 1-3 days before the new tenant moves in. Mr. Bjerke believes it's time to change the assessment of the *"Initial Service Fee"* to landlords. Also, with the use of smart meters, there is no need for an employee to go into the field to read the meter in order to transfer the bill, and a property owner with a standing order means that there is no new account opening process, no credit checks and the process takes less than 5 minutes. Mr. Bjerke stated that BED's Operating Guidelines calls for the Commission to periodically review and revise its fees to recover the costs it actually incurs in providing the service for which the fee is assessed. At this time, Mr. Bjerke is asking the Commission to review and lower the fee to reflect the actual cost incurred by the department.

Mr. Springer stated that he spoke with the Director of Customer Care, Mr. Andi Higbee, and was informed that there is some backend work that still takes place regardless of the standing order and smart meters. To determine whether the fee aligns with the work involved, we will have to review our entire operating guidelines and submit any changes to the Public Utility Commission (PUC). Our finance team has gone through some turnover, and BED has had two rates cases in the last two years, so we have not had an occasion to look into the operating guidelines. Mr. Springer thanked Mr. Bjerke for his feedback and assured him that we will be looking into our guidelines and will evaluate if the \$30 aligns with the staff time. If it is determined that it does not, we can make the proposed change with the PUC. Mr. Springer stated that realistically this review likely will not occur until fiscal year 2023.

Commissioner Moody asked how many small-scale rental housing providers are affected by this fee. Mr. Springer stated that his recollection is approximately 20% but will follow up with Chris Burns.

Commissioner Stebbins thanked Mr. Bjerke for coming in and stated that, given how much effort goes into going before the PUC, it makes sense not to pick and choose one piece or another but to look at this fee when reviewing the entire guidelines.

At this time Mr. Springer asked if the GM update could be moved ahead of the Street Lighting update, at which time the Commission agreed to amend the agenda to move the GM update to item #4.

5. GM Update

Mr. Springer stated that Mr. Mike Hyland, the new Executive Director of the New England Public Power Association (NEPPA), is present for a special presentation. At this time, Mr. Springer turned the meeting over to Mr. Hyland.

Mr. Hyland stated that NEPPA is located in Littleton, MA, and that it represents 78 municipal and cooperative utilities in New England. Every year, NEPPA gives out awards, and none is more prestigious than the Commissioner's Award. This year, NEPPA received a nomination for Commissioner Robert Herendeen. At this time, Mr. Hyland read the nomination letter submitted by Mr. Springer, which highlighted Commissioner Herendeen's esteemed and dedicated career. Mr. Hyland stated that the committee reviewed this letter and unanimously agreed that Commissioner Herendeen should receive this award.

Mr. Springer stated that he appreciates Mr. Hyland joining tonight, and thanked Ms. Stebbins-Wheelock for helping with the nomination process. Commissioner Herendeen said a few words, and pictures were taken that will appear on the BED website.

Mr. Springer stated that BED and DPI teams held a stakeholder meeting to take initial feedback and still are meeting separately with other stakeholders and working with Building Electrification Institute as well. This is a complex policy-making undertaking, and we are working to focus efforts on the largest energy users in existing buildings, and craft something that is practical and achievable.

The first-ever Net Zero Energy Festival is Saturday, September 17. The department has run ads in Seven Days and the Kids VT (the Seven Days kids publication), promoted it on social media, Front Porch Forum, and in Find and Go Seek. The Festival will have a DJ and live music, kids activities with Vermont Energy Education Program (VEEP), touch-a-truck and Power Town with our line crew, EV test-drives, and E-bike test rides in partnership with SunCommon and Sierra Club, heat pump, solar and EV vendors, fossil-fuel free food trucks and drinks, raffles, CHAMP, and much more.

Mr. Springer stated that Ever-Green had a site visit to Burlington in late August and continues to work to engineer and design the District Energy project with an eye towards getting updated construction pricing this fall. Headwinds in certain areas persist, including financing rates and volatile energy markets.

BED's yearly Employee Appreciation Lunch is scheduled for October 12 and will be held at McNeil this year, weather permitting. If Commissioners are interested in attending, please reach out to the Board Clerk.

Energy Action Network published its 2022 progress report for the state, and there are some interesting findings and data presented. It found that Vermont is not on track to meet its climate goals for 2030. Thermal and transportation make up 74% of Vermont's emissions (2018 data), while electricity is down to just 2% (from 10% in 2015) due in large part to the passage of Vermont's Renewable Energy Standard in 2015. BED is working to support additional legislation in the thermal and transportation sectors this coming session, which would further aid our Net Zero efforts and the state's climate efforts.

Commissioner Moody asked if our Defeat the Peak events are arbitrary? Mr. Springer stated that anytime we call a Defeat the Peak event, it's because the BED team has looked at the conditions ahead and determined that this may be a time where we are going to experience the ISO New England Peak. We called three peak events this summer, and we hit the peak with one of them.

Hitting the peak affects BED's power supply costs, reducing our share of the relative peak. During the first peak event this summer, we experienced a 445-kilowatt reduction leading to money the department does not have to pay towards our share of the ISO peak.

Commissioner Moody stated that the monthly report indicated that BED was purchasing two Mustang Mach-Es and asked if the department needs this type of vehicle. Mr. Springer stated that the Mach-E Select is one of the lower priced EVs on the market and stressed that they are not the fancier Mustangs that we may think of when we hear "Mustang." The Select does not have the maximum battery and maximum range, and we are purchasing these at a cost similar to the cost of trucks we have purchased in the past. We are replacing trucks that would cost \$50-60K with the \$40K Mach-E that requires fewer operating costs and less maintenance. We also are using our fuel instead of paying for fuel that is coming from out of state. We also are working on procuring a Ford F-150 Lightning, contractor grade truck, which is the lower end, for approximately \$33K to replace one of our current fossil fuel trucks.

Mr. Springer stated that there have been changes in our Finance Department. Ms. Byrne, our previous Finance Director left us to go back to the State of Vermont. Also, our Senior Accountant moved on from BED. At the City Council meeting this past week, we pursued a couple changes. We received feedback from Ms. Byrne at her exit interview and determined that the breakdown of responsibilities was too much for a single position in terms of attracting and retaining candidates. We were asking for a variety of skill sets that most people do not have. We have refocused the position, and it now will be called *Controller* and will be focused on accounting and financial operations management. Also, in recognition of Ms. Stebbins-Wheelock's work, not only managing the finance team multiple times in the past several years, but also playing a lead role in terms of our work with the budget, with Moody's, and our rate cases, we have changed her title to CFO and Manager of Strategy and Innovation. We also have moved the position held by Cheryl Mitchell to be a direct report to Ms. Stebbins-Wheelock.

Commissioner Stebbins asked if the City Council has voted on the WRAP program. Mr. Springer

stated that at the Monday City Council Meeting, the WRAP program was approved and will be filed with the PUC shortly. Commissioner Stebbins asked if there was any mechanism in place that would evaluate the program's success. Mr. Springer stated that this is a state-wide pilot, with funding for roughly 2,000 customers for the first round. This pilot has a goal/requirement of reaching 75% or more low- to moderate-income customer participants. One of the great benefits of this program is that if anyone defaults on their payments, they will not be disconnected. VHFA has a loan reserve to cover defaults, which is one of the reasons we are comfortable with the program. In most cases, these programs have proven to have a low default rate, but if this program has a higher default rate, this will be a result from which we would want to learn., Our Energy Services team will be interested in reviewing the data, including what combinations of measures are being used by other utilities. Mr. Springer stated that VHFA may have a broader set of metrics on which it will be reporting.

4. Street Lighting Update

Mr. Elliston stated that street lighting was on the agenda at the June Commission meeting. At that time, the Engineering Department became aware of an update to IES recommendations, and it was agreed that the Engineering team would review these updated recommendations and provide feedback at this meeting.

We became aware of the update to IES Recommended Practice 8 (RP8), which is the street lighting level recommendations that we follow. The most significant change affecting our designs is to the classification and recommended lighting levels for our sidewalks. For the criteria BED applies to residential areas, this results in lower lighting levels for sidewalks when compared to the previous version that were significantly higher. It's important to note that lighting levels for roadways remain the same as the previous version. Once we received this update, we went back and revised our designs for all the streets in the South End that we recently had done, including Scarff Avenue, Ferguson Avenue, Richardson Street, and Wells Street, with the goal of implementing our new sidewalk levels. Also, Lyman Avenue is another street in that area that is currently under construction, and we did revise our design prior to installing the conduit, but no street lighting has been installed yet. These changes were implemented in July and August 2022.

For clarification, Commissioner Stebbins stated that, while the new recommendations are lower than the recommendations we were following in the past, the residents living on the streets will feel like there is predominantly more lighting.

Mr. Elliston reviewed the previous version of the way that lighting levels were structured for sidewalks versus the updated recommendations that we currently are following, breaking it down by each street.

Commissioner Whitaker asked if Mr. Elliston has heard from the community since these streets were updated. Mr. Elliston stated that he has received a number of emails, mostly positive. He did receive a report on *See-Click-Fix* in which someone had reported that the streets were dark.

At this time, Commissioner Herendeen presented a PowerPoint presentation. One of the questions that came up is: When you intentionally reduce light levels below IES recommendations, do you run into legal issues? (Context: Several contacts and BED staff feel that no more than 10% of municipalities follow IES recommendations.) Commissioner Herendeen feels that those that have active knowledge of IES recommendations tend to follow them. Those that do not follow IES recommendations have a broad spectrum of criteria and policies. Commissioner Herendeen found no legal battles or pushback in any of the places contacted or reviewed; this list included approximately 10 places around the country.

Commissioner Herendeen referred to four Vermont communities that removed a number of fixtures approximately a decade ago (VEIC Report: Improving Efficiency in Municipal Street and Public Space Lighting.)

Mr. Lee Krohn is the City Manager in Shelburne, VT, and previously was City Manager in Manchester, VT. In Manchester, GMP sponsored a LED conversion in which GMP paid the capital cost, IES recommendations were not used, and there were no legal issues. Before Mr. Krohn came to Shelburne, there was a large reduction in the number of lights there. Over time, he has put a few back in with minimal pushback, again with no consideration of IES recommendations

Commissioner Herendeen reviewed his findings from Flagstaff, AZ, where he spoke with an engineer who stated that they do not follow IES recommendations, and instead light streets in general at approximately half of IES recommendations, They cooperate on this with nearby astronomical observatories.

Tucson, AZ underwent a dramatic conversion to LEDs and dropped its average illuminance by 68% and now is at IES recommended levels. It's important to state that they were severely over-lit prior to the change. They do dim the streetlights at midnight and at 3:00 am in the University and downtown areas. This is called adaptive lighting.

Pepperell, MA has converted from HPS to amber LED 2200K, which is more "yellowish" than Burlington's 3000K. They made the switch in response to feedback from a canvas of the population. They also dim down at night between 50%-70%. Commissioner Herendeen received a note from Pepperell stating that it would be completing a town survey to determine the actual illuminance of the dimmed lights and how it compares to IES values.

Commissioner Herendeen stated that, if the City of Burlington were ever going to consider doing anything different regarding lighting levels, we would need a lot of community involvement and really good consultants.

Commissioner Moody asked if, during Commissioner Herendeen's research, there was any legal involvement regarding an accident, injury, or death related to lighting levels. Commissioner Herendeen stated that several decades ago in Riverside, CA there was an individual hurt who

claimed it was due to lighting levels, but the City won the claim.

Commissioner Whitaker stated that we did have a legal case in Burlington regarding lighting, and BED was part of the settlement. Paul Alexander stated that he is reluctant to talk too much about the details of this case and stated that he spoke two months ago about the legality of claims that have occurred and the pushback that could occur from lawyers who represent people who get hurt. Mr. Alexander stated that it's great that Commissioner Herendeen has produced these cases where there hasn't been pushback, but ultimately, there must be some set of guidelines with which we're comfortable, whether it's IES or guidelines set by our engineers or another party. There still is going to be a threshold, and once you go below that threshold, and an accident occurs, and there's a claim, then we must be ready to respond.

Commissioner Stebbins thanked Commissioner Herendeen for his hard work. If there is an interest or desire to investigate changing our standards and to not follow IES standards, then we need to look at what this undertaking would look like in terms of lawyers, consultants, financial impact, etc.

At this time Mr. Causer, a resident of Lyman Avenue, stated that he has seen a lot of changes in lighting in his neighborhood from 1995 until now, and that they had been very gradual until recently when there was a huge change in lighting levels. Mr. Causer stated that BED has been lighting the streets for many years and has some sense of what an acceptable amount of light is. Mr. Causer asked if it was possible that the IES recommendations, which set standards for the entire country, have in some ways taken away the ability for BED to build on its knowledge gained from lighting our streets for 100 years. He used his neighborhood as an example, stating that the lighting has gone from slightly underlit to unbelievably lit and is now being backed off again because of the revised standard.

From a homeowners point of view, the idea of the standard appears to be for liability reasons so that if something happens like what happened in 1990, we can point to the standard. Mr. Causer stated that maybe there's other reasons for the standard, such as uniformity, but stated that he is not seeing great uniformity in the South End right now. He's seeing lights of different temperatures, different heights, different fixtures, with Scarff Avenue having one light temperature on the upper block and the lower block having a different lighting temperature. Mr. Causer continued by saying that the lights are kind of all over the place and asked: Do we really need to have this standard?

Commissioner Stebbins stated that, in regard to different lights, levels, color, etc., streets can stay the same for 30+ years, but when something triggers the upgrade, such as a complaint, or conduit upgrade, this action requires the street and the surrounding streets to go through a lighting review. Mr. Causer stated that he is assuming that prior to these changes his street was below the IES recommendation and asked if there was a liability issue at that time. Could an accident have occurred, could an individual say it's dark on that street and the City has a standard that it is not meeting?

Commissioner Herendeen stated that he had the first presentation regarding lighting in 2015 with a law student at Vermont Law School. At that time, we looked into the question of what the City's responsibilities are about lighting and considered the concept of sovereign immunity, which basically means the City gets off the hook on a lot of stuff and generally that applies to street lighting as well.

Commissioner Herendeen stated that there was an accident in the area of the roundabout on St. Paul Street involving an island with a light on it, but that light was not lit. At that time, a lawsuit was filed, and the City won.

Mr. Springer stated that he would like Bill Ellis to weigh in because it's Mr. Springer's understanding that the legal standard is, if the City chooses to light the streets, then it is well advised to follow a lighting standard for purposes of liability.

Mr. Ellis stated that a municipality does not have an obligation or responsibility to light its streets, but once it does, it must do so in a non-negligent fashion. Regarding the immunity question, it is Mr. Ellis' opinion that immunity would not be applicable in Vermont. Running an electric utility and lighting streets are proprietary functions.

The question is "*what's the standard?*" In its literature, the IES states that its recommendations are not a legal standard. Mr. Ellis stated that, if you have a catastrophic injury like what happened in 1994, then the plaintiff's attorney is going to come after the City. If there was an accident and there was a street light nearby and they said, well, maybe that street light wasn't properly lit, not only would there be a lawsuit filed against the City of Burlington, but the lawsuit also would be against Burlington Electric Department.

Mr. Ellis stated that you don't have to follow a standard/recommendation as long as you have an engineer who says this lower standard does not create an unreasonable or substantial risk of personal injury or property damage.

Mr. Ellis stated that a survey could be conducted, but you would get different opinions from different people in different neighborhoods. So many things would need to be taken into consideration when asking these questions. If it's the will of the electorate that we don't want to have lights or we like it dark, then that's a choice that you as the Commission can make. However, if somebody gets hurt because of a lack of lighting and they can prove causation, you have exposure.

Mr. Springer stated that, if the Commission is considering changing anything, we should meet with Hickock and Boardman because they help us manage our insurance policy.

Commissioner Stebbins stated that four or five volunteer commissioners can't make the judgment call as to whether there could be a potential lawsuit for the City. This would involve reaching out to the City Council. Commissioner Stebbins asked the Commissioners what they feel the next steps should be.

Commissioner Stebbins stated that, other than touching base with Hickock and Boardman and the City Council, we need to know how the entire community feels. And then how does that ripple through all of Burlington? Commissioner Stebbins asked the Commission if it would want to do a survey. It would have to be City-wide and would need one standard for the whole City.

Commissioner Whitaker stated that since she has been on the Commission, there have been three complaints, and they've all been about being over-lit. It's going to be difficult to have a standard in place about which everybody agrees.

Commissioner Stebbins asked Mr. Causer if he felt that a survey would be beneficial. Mr. Causer replied that he does not feel that BED should conduct a survey. Mr. Causer stated that BED has been lighting the streets for a long time and that, yes, there are areas that could be improved but doesn't feel a survey would be useful.

Commissioner Moody stated that, based Mr. Ellis' statement and Mr. Alexander's concerns, he believes BED should continue to follow the IES recommendations and, as long as we do, we will be covered. You are not going to please everyone.

Commissioner Stebbins stated that this subject can be discussed further in our Commissioner Check-In next month. In the meantime, Commissioner Stebbins will reach out to Commissioner Chagnon to discuss his thoughts on how he would move forward.

6. Customer Satisfaction Survey

Mr. Springer stated that every three years the Public Utility Commission requires BED to ask our customers how satisfied they are with BED's services. The last Customer Satisfaction Survey was four years ago due to COVID, but going forward, we will follow the every three-year plan. Mr. Springer stated that BED has been working with Michael Moser, an independent consultant, since 2005 to lead us through BED's triennial Customer Satisfaction Survey.

Mr. Moser stated that the Customer Satisfaction Survey outreach was conducted by a third-party. This survey is unbiased and guarantees respondent confidentiality. The survey was conducted during daytimes and evenings on weekdays and weekends via email and telephone. The survey collected responses from 923 residential customers and 183 commercial customers.

Mr. Moser's assessment of the Residential Survey is that all the results have remained steady and stable since 2005. Offering innovative or new services seems to be the least important to BED customers and providing reliable electric services remains one of the top most important characteristics. The survey indicates that customer satisfaction remains above 8 (at 8.7 out of 10), and it would be very challenging to improve on the overall satisfaction rate because it is so high.

Mr. Moser presented the Commercial Survey, which indicates that the results are pretty much the same as the Residential results with a little increase in overall satisfaction (9 out of 10).

Mr. Moser reviewed the results regarding BED Energy Efficiency programs, including weatherization, lighting rebates, or efficient appliances. Where the survey asked if the customer owned an EV or PHEV, the results concluded that 44% of respondents said they are waiting until their current vehicle needs to be replaced, 30% felt that EVs and PHEVs were too expensive, even with the rebates. The survey asked both residential and commercial customers if they had a cold climate heat pump. The commercial response was just over 25% who had heat pumps and the residential response was 12.9%.

There was a short discussion along with questions that Mr. Moser answered to the Commission's satisfaction.

Mr. Springer stated that full survey will be forwarded to the Commission.

7. Commissioners' Check-In

Commissioner Whitaker asked if Mr. Springer were aware that the General Manager for Green Mountain Transit (GMT) is leaving and would it make sense for BED to get involved with finding the replacement. Mr. Springer stated that he did briefly connect with the individual who is leading the search, and that he asked if we had any thoughts or recommendations. Mr. Springer stated that GMT may be purchasing up to seven additional electric buses, and we are in discussions and working with them regarding incentives.

Commissioner Whitaker stated that Mr. Jack Hanson, the Ward I City Councilor has stepped down. There were articles in VT Digger and Seven Days which made it sound like he was stepping down to take a position at BED that he created. Commissioner Whitaker asked Mr. Springer what his thoughts were regarding these articles.

Mr. Springer stated that the job was created by BED, not by the City Council. This position is in Ms. Stebbins-Wheelock's area, reporting to Jennifer Green in the Sustainability area. This position opened last Friday, and it will be a fully open and competitive process, and we welcome applications from anybody who is interested and qualified. We will go through a competitive process, so any implications otherwise are inaccurate.

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

The meeting of the Burlington Electric Commission adjourned at 7:47 p.m.

Attest:

A handwritten signature in cursive script, reading "Laurie Lemieux", is written over a horizontal line.

Laurie Lemieux, Board Clerk



*FY 2023
Financial Review
July*

October 4, 2022

Burlington Electric Department Financial Review

FY 2023

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FINANCIAL HIGHLIGHTS – BUDGET VS ACTUAL as of July FY23

(\$000)	Full Yr Budget	CURRENT MONTH			YEAR TO DATE		
		Budget	Actual	Variance	Budget	Actual	Variance
Sales to Customers	51,553	4,826	4,842	16	4,826	4,842	16
Other Revenues	3,631	323	285	(38)	323	285	(38)
Power Supply Revenues	8,385	0	0	0	0	0	0
Total Operating Revenues	63,569	5,149	5,127	(22)	5,149	5,127	(22)
Power Supply Expenses	31,423	2,975	4,078	(1,103)	2,975	4,078	(1,103)
Operating Expense	22,952	1,975	1,519	456	1,975	1,519	456
Depreciation & Amortization	6,391	533	511	22	533	511	22
Gain/Loss on Disp of Plant	297	0	0	0	0	0	0
Taxes	3,466	291	266	24	291	266	24
Sub-Total Expenses	64,529	5,773	6,374	(601)	5,773	6,374	(601)
Operating Income	(961)	(624)	(1,247)	(623)	(624)	(1,247)	(623)
Other Income	5,306	456	423	(33)	456	423	(33)
Interest Expense	3,114	279	297	(19)	279	297	(19)
Net Income (Loss)	1,231	(446)	(1,121)	(674)	(446)	(1,121)	(674)

Year-to-Date Results:

- **Sales to Customers** up \$16,000 (within budget). Non-Residential Sales down \$34,900 and Residential Sales up \$50,000.
- **Other Revenues** down \$38,000 (11.8%)
 - a. DSM billable (customer driven) down \$40,000.
- **Power Supply Expenses** up \$1,103,000 (37%)
 - a. Purchased Power up \$947,000.
 - b. Fuel up \$221,000.
 - c. Transmission down, \$66,000.
- **Taxes** down \$24,400 (8%)
 - a. Actual Payment in Lieu of Tax (PILOT) is less than budget assumption.
- **Operating Expenses** down \$456,000 (17.5%)
 - a. Various items are less than budget. This includes materials & supplies (\$22,900), DSM (rebates & outside services) (\$21,500), transportation clearing (\$8,300), building Clearing, (\$9,100), maintenance (\$44,700) and uncollectible accounts (\$9,000). Offset by higher expense due to the credit for A&G (“Admin and General Expenses”) charged to Capital projects was less than planned, \$43,300.
- **Other Income** down \$33,000 (7%)
 - a. Budget assumed customer contributions for Champlain Pkwy, \$57,400.

FINANCIAL HIGHLIGHTS – BUDGET VS ACTUAL as of July FY23

Capital Spending – July YTD (\$000's)				
Plant Type	Full Yr. Budget	Budget	Actual	% Spent
Production	\$1,637	\$276	\$4	0%
Other	267	27	0	0%
Distribution	4,460	314	62	1%
General	2,127	188	89	4%
Sub-Total	8,491	805	156	2%
Transmission	632	577	577	91%
Total	\$9,123	\$1,382	\$733	8%

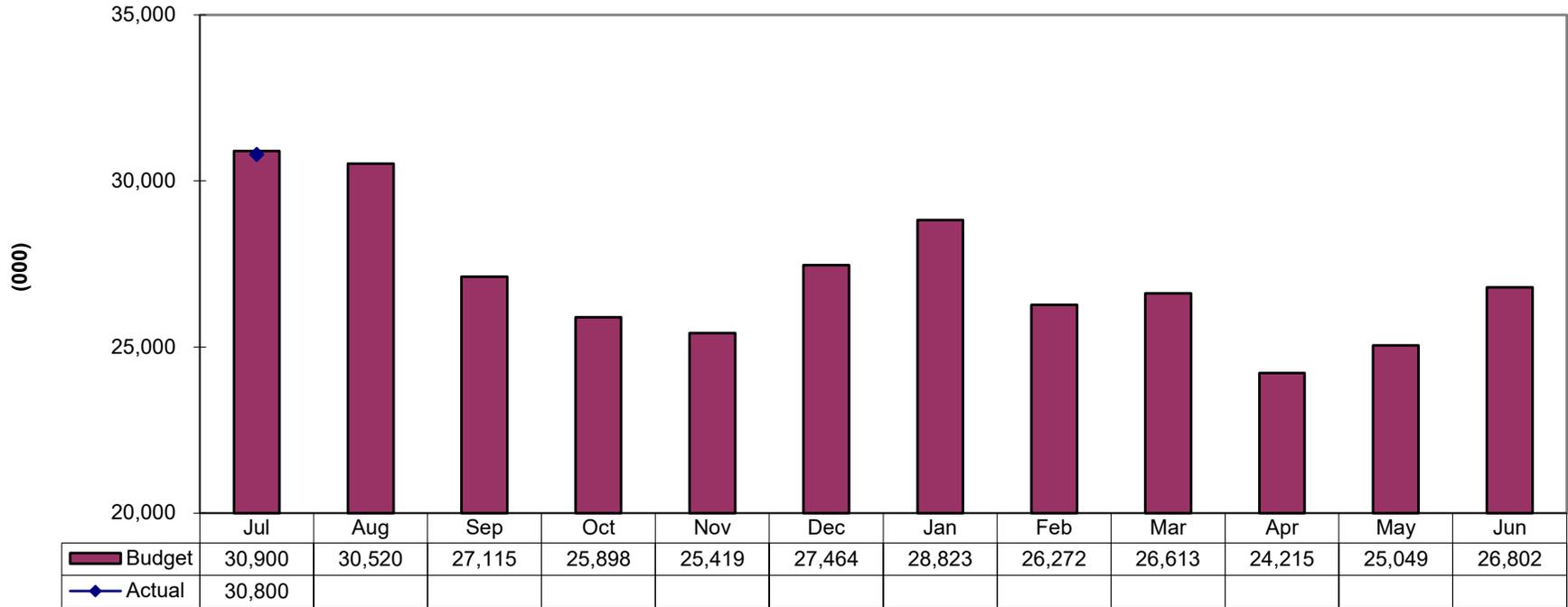
- (1) **Production** – Timing of projects at McNeil Plant, \$120,800, Winooski One, \$53,200 and Gas Turbine, \$97,700.
- (2) **Other** – Timing; budget includes direct current fast chargers, Distributed Energy Resources, and research & development.
- (3) **Distribution** – Timing of various projects.
- (4) **General** – IT Forward project budgeted throughout the year; YTD expenses of \$75,800 compared to a budget of \$68,850. Pole mount routers YTD expenses of \$0 vs budget of \$53,300 and OpenWay upgrade, YTD expenses of \$0 vs budget of \$24,700.

As of July 31, 2021 Cash and Investments	
Operating Funds	\$4,741,400
Operating Fund – CDs	\$1,150,800
Total Operating Fund	\$5,892,200

Credit Rating Factors – July 2022				
	"A"	"Baa"	Current	3 Year Average
Debt Service Coverage Ratio	1.25	1.25	3.82	3.91
Adjusted Debt Service Coverage Ratio	1.50	1.10	1.03	0.99
Cash Coverage - Days Cash on Hand	90	30	99	125

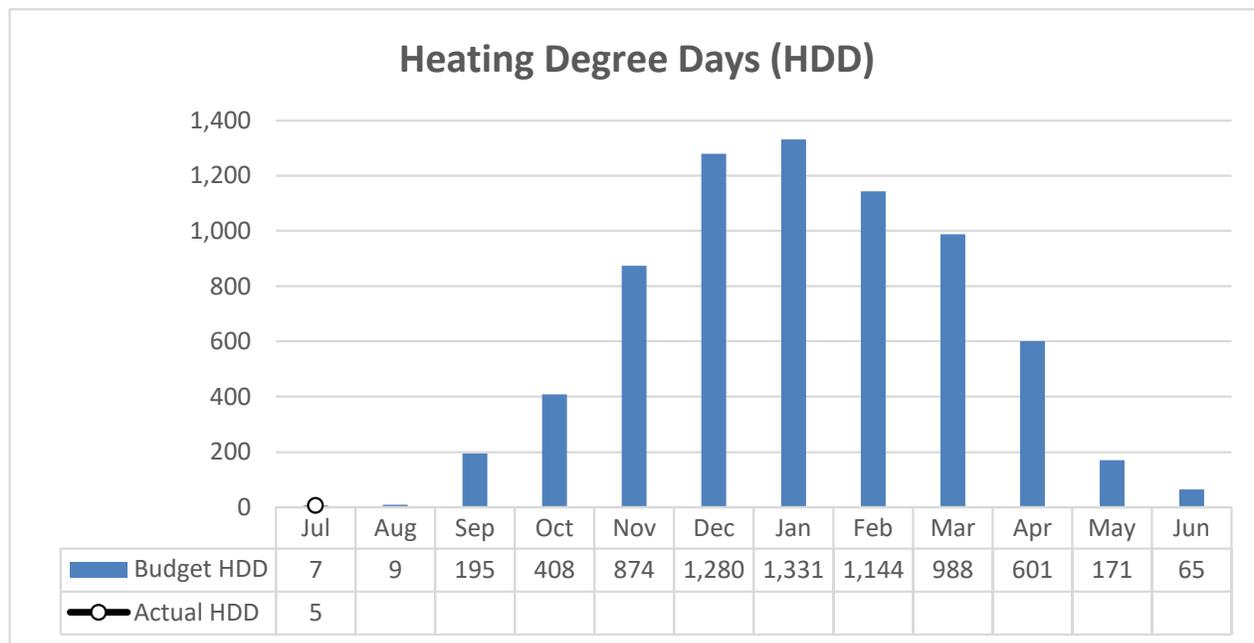
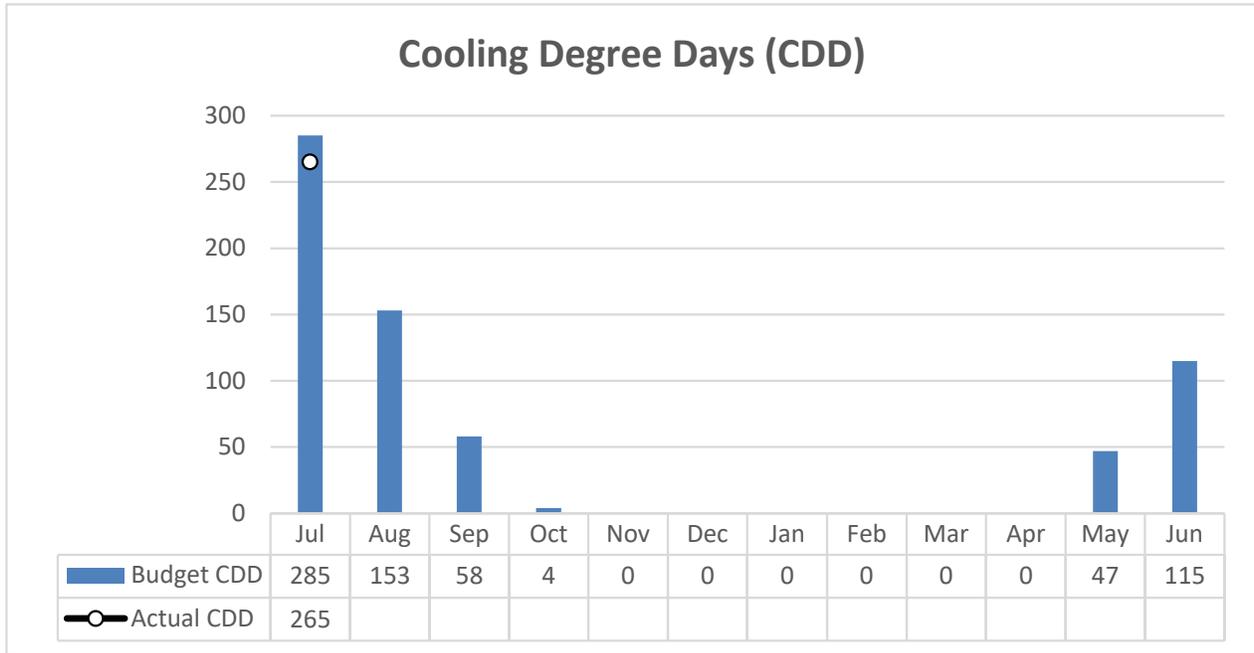
**Burlington Electric Department
Fiscal Year Ending June 30, 2023**

**Total Sales to Customers - KWH
Monthly**



KWH Sales to Customers (YTD)												
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Budget	30,900	61,420	88,534	114,432	139,851	167,316	196,138	222,410	249,023	273,239	298,288	325,090
Actual	30,800											

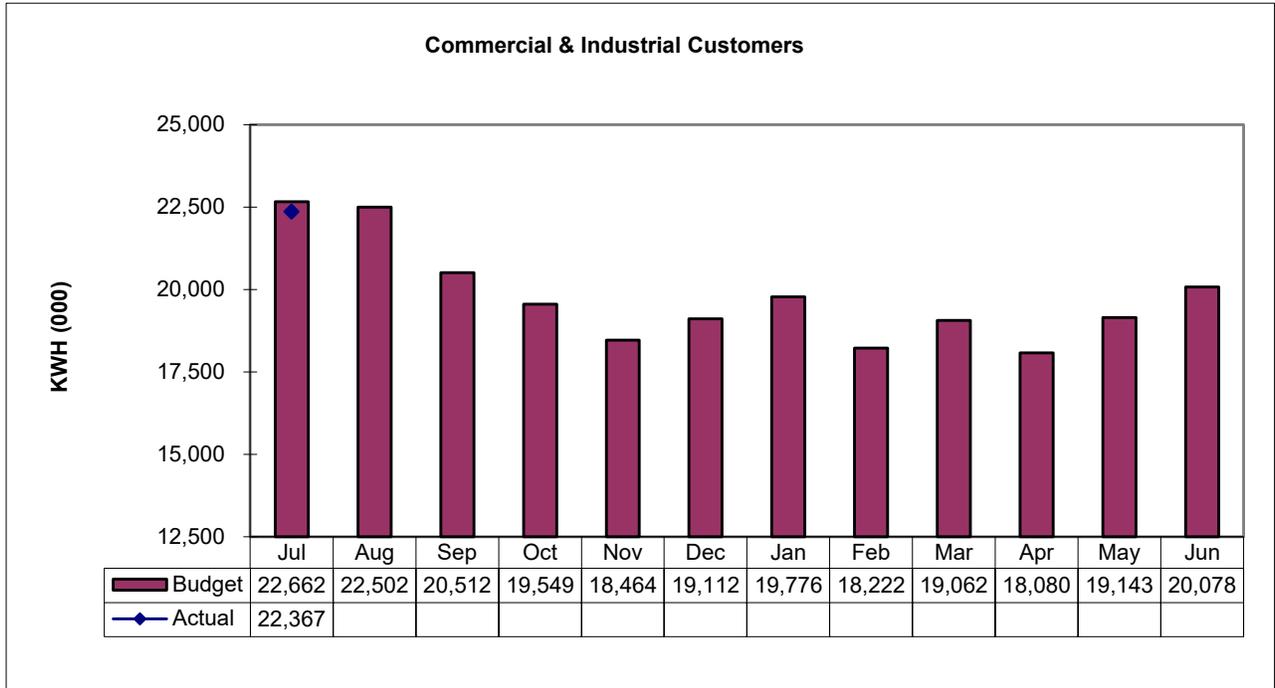
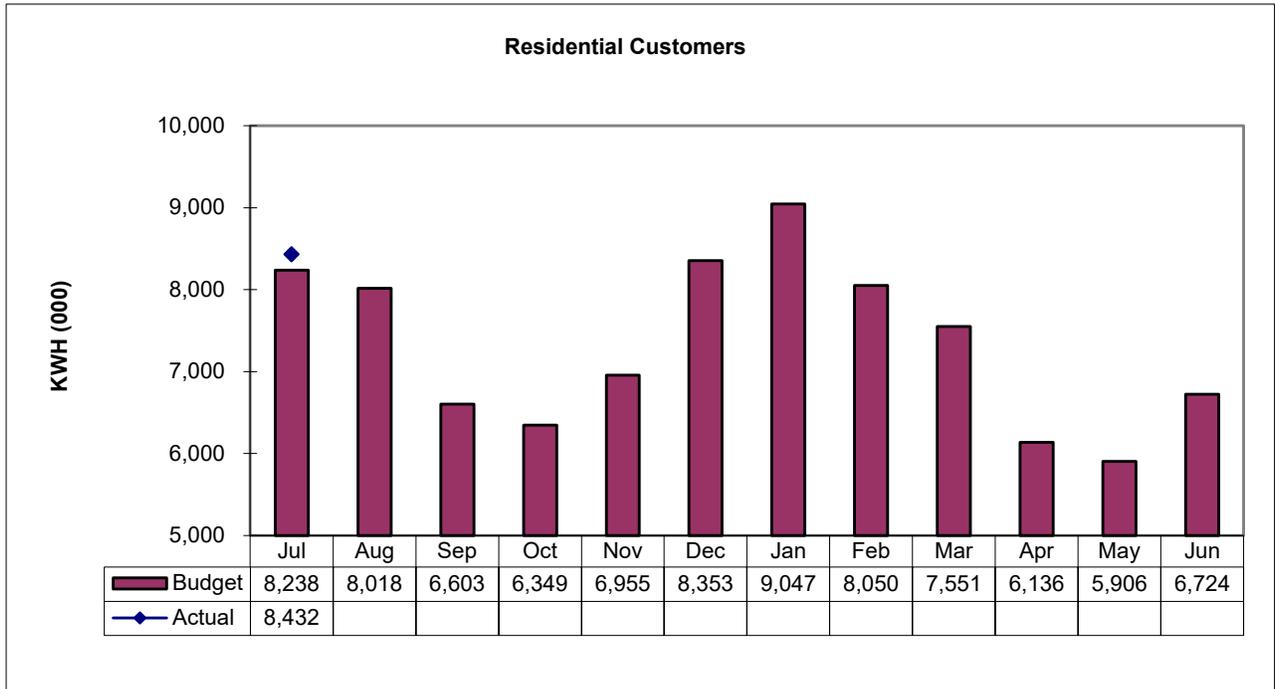
FY 2023



Average Monthly Temperature												
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Budget	72	71	63	50	39	28	20	22	32	45	58	67
Actual	73											

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, 2022
KWH Sales**



Street Lighting is included with Commercial & Industrial Customers.

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

	(\$000)					
	Current Month			Year-to-Date		
	Budget	Actual	Variance	Budget	Actual	Variance
Expenses:						
Fuel (p. 7)	\$961	\$1,182	(\$221) (1)	\$961	\$1,182	(\$221) (1)
Purchased Power (p.11)	1,236	2,183	(947) (2)	1,236	2,183	(947) (2)
Transmission Fees - ISO	625	612	13 (3)	625	612	13 (3)
Transmission Fees - Velco	97	49	48 (4)	97	49	48 (4)
Transmission Fees - Other	56	52	4	56	52	4
Total Expenses	2,975	4,078	(1,103)	2,975	4,078	(1,103)
Revenues:						
Renewable Energy Certificates - McNeil	0	0	0	0	0	0
Renewable Energy Certificates - Wind	0	0	0	0	0	0
Renewable Energy Certificates - Hydro	0	0	0	0	0	0
Renewable Energy Certificates - Other	0	0	0	0	0	0
Total Revenues	0	0	0	0	0	0
Net Power Supply Costs	\$2,975	\$4,078	(\$1,103)	\$2,975	\$4,078	(\$1,103)
Load (MWh)	31,680	31,765	85	31,680	31,765	85
\$/MWh	\$93.92	\$128.38	\$34.46	\$93.92	\$128.38	\$34.46

Current Month:

- (1) See detail on page 7.
- (2) See detail on page 11.
- (3) ISO-NE Transmission under Budget due to lower June peak load.
- (4) VELCO Transmission under Budget due to lower Common charges.

YTD:

- (1) See detail on page 7.
- (2) See detail on page 11.
- (3) See current month.
- (4) See current month.

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

	(\$000)					
	Current Month			Year-to-Date		
	<u>Budget</u>	<u>Actual</u>	<u>Variance</u>	<u>Budget</u>	<u>Actual</u>	<u>Variance</u>
<u>FUEL:</u>						
McNeil:						
Fuel Consumed	682	868	(186) (1)	682	868	(186) (1)
Swanton Yard	52	73	(21) (1)	52	73	(21) (1)
Train Deliveries	104	138	(34) (1)	104	138	(34) (1)
Labor & Other Expenses	107	82	25 (2)	107	82	25 (2)
Total McNeil Fuel	<u>944</u>	<u>1,161</u>	<u>(217)</u>	<u>944</u>	<u>1,161</u>	<u>(217)</u>
Gas Turbine	17	21	(5) (3)	17	21	(5) (3)
Total Fuel	<u><u>961</u></u>	<u><u>1,182</u></u>	<u><u>(221)</u></u>	<u><u>961</u></u>	<u><u>1,182</u></u>	<u><u>(221)</u></u>

Current Month:

(1) McNeil production 28% over Budget. (p. 9)

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

(3) GT produced 55 MWh (53% over Budget).

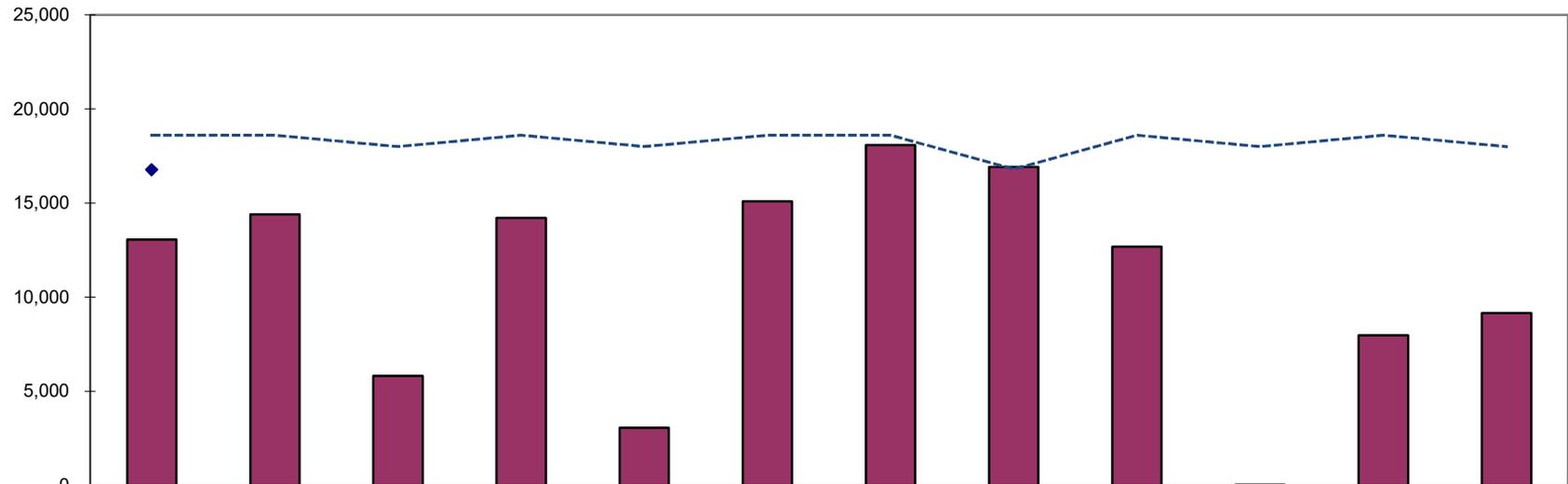
YTD:

(1) See current month.

(2) See current month.

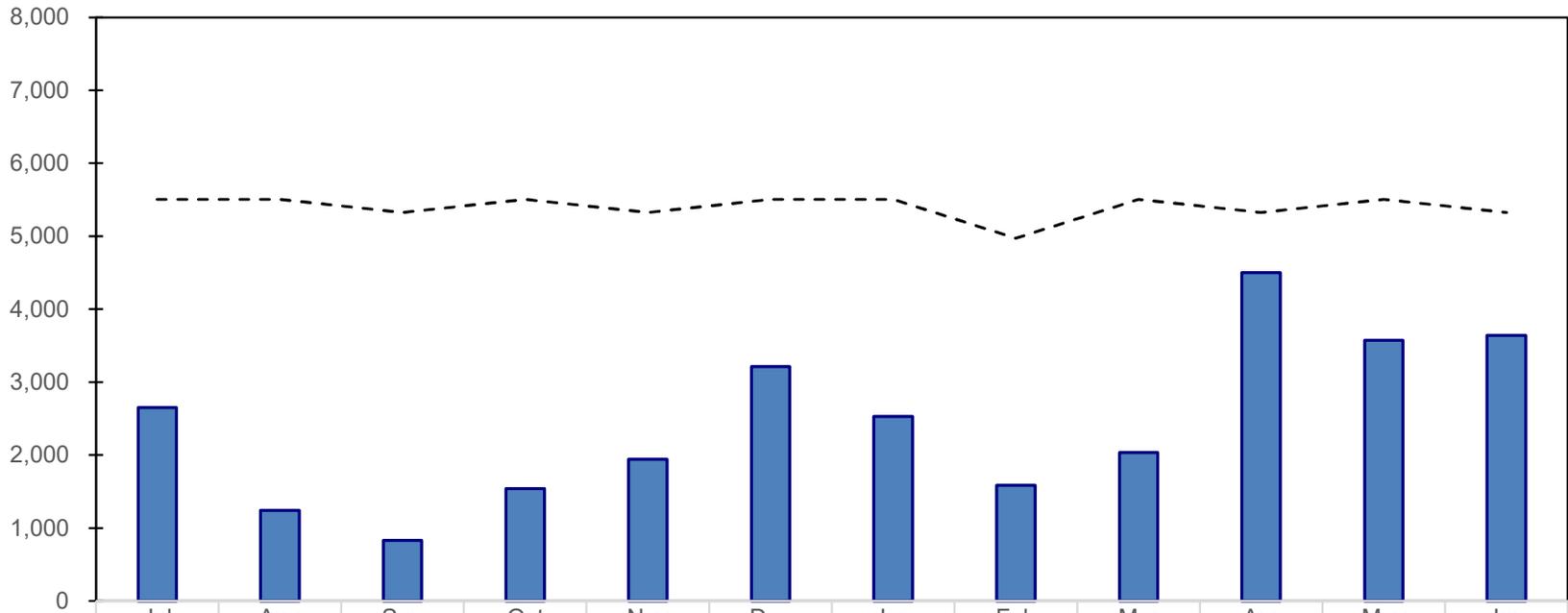
(3) See current month.

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



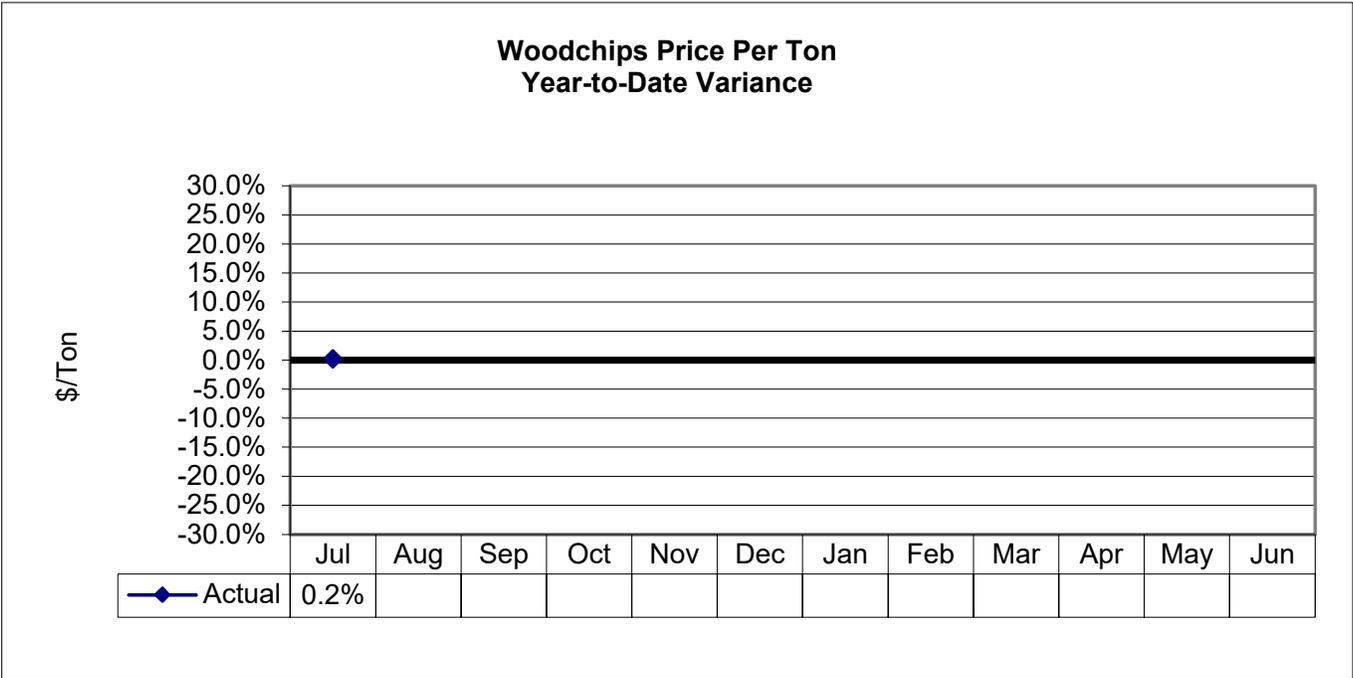
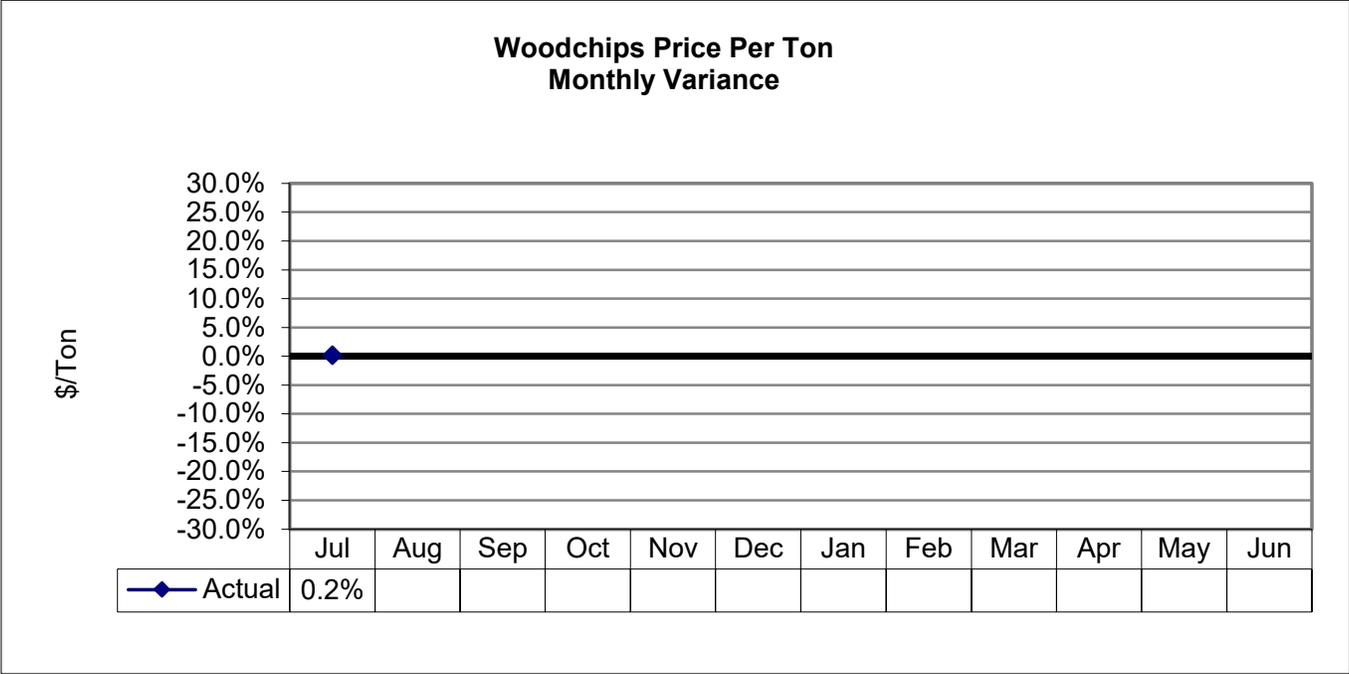
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Budget	13,047	14,395	5,792	14,209	3,057	15,088	18,082	16,912	12,671	23	7,963	9,152
Actual	16,763											
Maximum	18,600	18,600	18,000	18,600	18,000	18,600	18,600	16,800	18,600	18,000	18,600	18,000

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



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Budget	2,650	1,246	832	1,541	1,942	3,216	2,531	1,587	2,032	4,503	3,575	3,643
Actual	651											
Maximum	5,506	5,506	5,328	5,506	5,328	5,506	5,506	4,973	5,506	5,328	5,506	5,328

**Burlington Electric Department
Fiscal Year 2023**



* Wood only. Does not include other costs.

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

	(\$000)							
	Current Month			Year-to-Date				
	<u>Budget</u>	<u>Actual</u>	<u>Variance</u>	<u>Budget</u>	<u>Actual</u>	<u>Variance</u>		
<u>PURCHASED POWER:</u>								
Non-Energy (capacity)	106	123	(16)	(1)	106	123	(16)	(1)
Energy:								
Georgia Mountain Wind	192	263	(71)	(2)	192	263	(71)	(2)
Hancock Wind	134	196	(61)	(3)	134	196	(61)	(3)
VT Wind	125	135	(10)	(4)	125	135	(10)	(4)
Hydro Quebec	254	254	0		254	254	0	
Great River Hydro	173	172	0		173	172	0	
In City Solar Generators	114	117	(3)		114	117	(3)	
NYPA	6	7	(1)		6	7	(1)	
ISO Exchange	80	(143)	223	(5)	80	(143)	223	(5)
Velco Exchange	0	(1)	1		0	(1)	1	
Total Energy	<u>1,078</u>	<u>1,001</u>	<u>77</u>		<u>1,078</u>	<u>1,001</u>	<u>77</u>	
Ancillary Charges	(2)	13	(15)		(2)	13	(15)	
Miscellaneous	53	1,046	(993)	(6)	53	1,046	(993)	(6)
Total Purchased Power Expense	<u><u>1,236</u></u>	<u><u>2,183</u></u>	<u><u>(947)</u></u>		<u><u>1,236</u></u>	<u><u>2,183</u></u>	<u><u>(947)</u></u>	

Current Month:

- (1) Includes \$37k for Mystic Cost of Service not in Budget.
- (2) Production 37% over Budget.
- (3) Production 46% over Budget.
- (4) Production 8% over Budget.
- (5) Production (McNeil (28%) and Wind (30%)) over Budget.
- (6) Includes \$1M REC purchase.

YTD:

- (1) See current month.
- (2) See current month.
- (3) See current month.
- (4) See current month.
- (5) See current month.
- (6) See current month.

Burlington Electric Department
Operating and Maintenance Expense by Spending Category
FY 2023 - July

	Budget	Actual	Variance	% Variance	*
Labor-Regular	695,766	570,797	124,969	18%	
Labor-Overtime	48,307	55,266	(6,959)	14%	
Labor-Temporary	2,750	2,824	(74)	3%	
Labor-Overhead	283,087	255,983	27,104	10%	a
Outside Services	211,067	145,883	65,184	31%	b
DSM (rebates & outside services)	193,539	172,055	21,484	11%	c
Materials & Supplies	124,095	101,206	22,889	18%	d
Insurance	61,104	59,789	1,315	2%	
A & G Clearing	(64,741)	(21,436)	(43,305)	67%	e
Other - RPS Compliance	58,392	64,350	(5,958)	10%	
Other	360,856	112,288	248,568	69%	f
Operating and Maintenance Expense	1,974,222	1,519,005	455,217	23%	

(a) See page 13.

(b) Expense for annual audit, \$33,000 and Doxim utility billing, \$6,800 did not happen in July.

(c) 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.

(d) Timing; McNeil Plant (\$11,800), Generation (\$5,000) and Customer Care, (\$3,800).

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

(f) Timing: various areas are less than budget including, Training (\$6,800), Transportation Clearing (\$8,300), Building Clearing (\$9,100), Uncollectible Accounts (\$9,000) and department contingency.

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

Labor - Overhead	(000's)			%
	Budget	Actual	Variance	
Pension	\$128	\$132	(\$4)	-3% (a)
Medical Insurance	118	112	6	5% (b)
Social Security Taxes	83	76	7	9% (a)
Workers Compensation Ins.	31	27	4	13% (b)
Dental Insurance	7	6	1	11% (b)
Life Insurance	2	2	0	2% (b)
	\$368	\$354	\$14	4%

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

(a) Function of labor cost.

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

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

Net Income
FY 2023 - July (\$000)

	Ref	Current Month			Year - To - Date		
		Budget	Actual	Variance	Budget	Actual	Variance
Operating Revenues							
Sales to Customers	p.3	4,826	4,842	16	4,826	4,842	16
Other Revenues		323	285	(38) (a)	323	285	(38) (a)
Total Operating Revenues		5,149	5,127	(22)	5,149	5,127	(22)
Net Power Supply							
	p.6	2,975	4,078	(1,103)	2,975	4,078	(1,103)
Operating Expenses							
Operating and Maintenance	p.12	1,975	1,519	456	1,975	1,519	456
Depreciation & Amortization		533	511	22	533	511	22
Gain/Loss on Disp of Plant		0	0	0	0	0	0
Revenue Taxes		51	48	3	51	48	3
Property Taxes Winooski One		43	40	3 (b)	43	40	3
Payment In Lieu of Taxes		196	178	18 (b)	196	178	18 (b)
Total Operating Expenses		2,798	2,296	502	2,798	2,296	502
Other Income and Deductions							
Interest/Investment Income		5	20	15	5	20	15
Dividends		360	360	0	360	360	0
Customer Contributions/Grant Proceeds		68	38	(30) (c)	68	38	(30) (c)
Other		23	5	(18)	23	5	(18)
Total Other Income & Deductions		456	423	(33)	456	423	(33)
Interest Expense							
		279	297	(19) (d)	279	297	(19) (d)
Net Income							
		(446)	(1,121)	(674)	(446)	(1,121)	(674)

Current Month:

(a) Energy Efficiency Program cost reimbursement was lower than planned, \$40,000.

(b) Actual bill is less than projected (\$239K for the year).

(c) Budget assumed customer contributions for Champlain Pkwy, \$57,400 and other billable. Actual includes other billable.

(d) Revenue Bond 2022 actual interest higher than projected.

Year - To - Date:

(a) See current month.

(b) See current month.

(c) See current month.

(d) See current month.

**Burlington Electric Department
Capital Projects - FY23**

	\$000			
	Full Year Budget	Budget	July YTD Actual	Variance
McNeil (BED 50% Share)				
ESP Mechanical Field Rebuild (312)	245		3	(3)
Boiler Grate Overhaul West	200			0
Routine Station Improvements	167	33		33
Continuous Emissions Monitoring Replacement/Upgr.	146			0
Replacement Rail Cars	75	75		75
Switchyard 3321 Breaker Replacement	70			0
Turbine Control System Upgrade/Insurance (314)	49			0
A-Belt Belt Replacement (312)	30			0
Augers Replaced (312)	30			0
Demi/Service Water Pump	15	15		15
Safety Valve Replacements (312)	13			0
Shelving Footings	13			0
Station Tools & Tool Boxes	8			0
Rigging Equipment (316)	5			0
Other	11	2	2	(0) (a)
Total McNeil Plant	1,076	125	4	121
Hydro Production	224	53		53
Gas Turbine	338	98		98
Total Production Plant	1,637	276	4	272
Other				
Direct Current Fast Charger (new locations)	162	16		16
EV Charger Installation (Level 2)	39	4		4
Distributed Energy Resources	37	4		4
Policy & Planning Research & Dev	29	3		3
Total Other	267	27	0	27
Transmission Plant				
VT Transco Investment	632	577	577	0
Total Transmission Plant	632	577	577	0

(a) Budget includes energy efficiency improvements, equipment cameras, perimeter fence upgrade, portable radios upgrade and furniture replacement.

**Burlington Electric Department
Capital Projects - FY23**

	\$000			
	Full Year Budget	Budget	July YTD Actual	Variance
Distribution Plant-General				
Aerial				
Pole Inspection & Replacement	118		6	(6)
Ethan Allen Pkwy - Conv to 2ph P2942-2959	73		29	(29)
Heineberg Rd Reconductor	186			0
Total Aerial	376	0	36	(36)
Underground				
Appletree Point Rebuild (Electrical Work)	107	43	2	41
Replace 910S/911S (Votey)	59			0
Replace 322/323/324S (Main St and Univ Hts)	138		0	(0)
Replace 724S/725S (Milot - College St)	71			0
1L2/2L5 Cable Replacement Pt1	294	15		15
2L5/2L2 Cable Replacement Pt2	223	45		45
2L5 Cable Replacement Pt3	573	115	0	115
Edgemoor Drive Rebuild - Phase 3	92	5	0	4
Lyman Avenue Rebuild	669	33	7	26
Sunset Cliff Rebuild	455	23	2	21
Total Underground	2,680	278	12	266
Customer Driven/City Projects				
Champlain Parkway	736	74		74
Champlain Parkway (CAFC)	(574)	(57)		(57)
UVM Athletic Facility	18	5		5
Shelburne St Roundabout Relocation			3	(3)
University Place Decorative Lighting			7	(7)
Total Underground	180	21	11	10
Other				
Distribution Transformers	230			0
Communication Equipment Emergency Repair	29		1	(1)
SCADA Field Device Upgrades	182	9	0	9
SCADA Network Switches Replacement	42			0
Metering CF-33 Toughbook	10			0
SCADA Backup Server UPS Replacement	20			0
Other	0			0
Total Other	512	9	1	8
Total Distribution Plant-General	3,748	307	59	249

**Burlington Electric Department
Capital Projects - FY23**

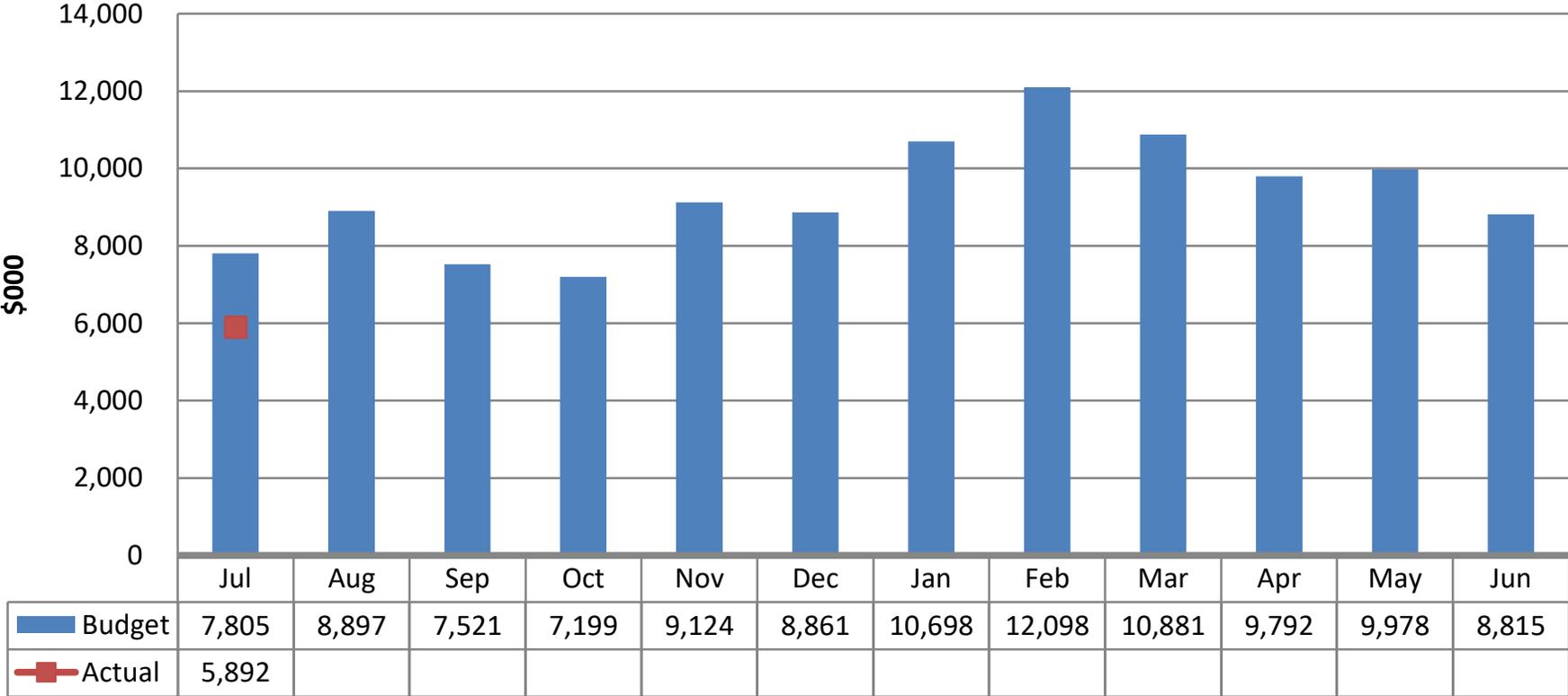
	\$000			
	Full Year Budget	Budget	July YTD Actual	Variance
Distribution Plant - Blanket				
Lighting	251	1	8	(8)
Lighting (Rebate)	(6)			0
Underground	347	11	10	2
Underground (CAFC)	(152)	(8)	(36)	29
Aerial	170	3	4	(1)
Aerial (CAFC)	(67)	(3)	(2)	(1)
Meters	92	2	7	(5)
Tools & Equipment - Distribution/Technicians	35	0	3	(3)
Replace Corroded Vista CT's/PT's	22			0
Substation Maintenance	16			0
Gas Detectors	4			0
Total Distribution Plant - Blanket	<u>711</u>	<u>7</u>	<u>(6)</u>	<u>13</u>
Total Distribution Plant	<u>4,460</u>	<u>314</u>	<u>52</u>	<u>262</u>
General Plant				
Computer Equipment/Software	1,902	147	80	67 (a)
Vehicle Replacement	94			0
Buildings & Grounds	120	41	9	32 (b)
Other	11		9	(9)
Total General Plant	<u>2,127</u>	<u>188</u>	<u>99</u>	<u>90</u>
Sub-Total Plant	<u>\$9,123</u>	<u>\$1,382</u>	<u>\$733</u>	<u>\$649</u>
Add: CAFC* reclass to "Other Income"	798	68	38	30
Total Plant	<u>\$9,921</u>	<u>\$1,450</u>	<u>\$771</u>	<u>\$680</u>

(a) Budget includes IT Forward, \$68,851, OpenWay upgrade, \$24,747 and Pole Mount Routers, \$53,340. Actual includes IT Forward, \$75,844.

(b) Budget includes paving project at 585 Pine Street, \$6,000, Storm Drain rebuild, \$8,000, Camera System upgrade, \$15,000 and HVAC Software upgrade, \$5,481. Actual includes Resource Planning office, \$9,000.

* Customer Advances (Contributions) for Construction.

Operating Cash - FY 2023 Monthly Ending Balance



Motions – October 26, 2022 Meeting

1. I move to find that premature general public knowledge of KPMG's evaluation of BED's management with the Commission would clearly place the Burlington Electric Department at a substantial disadvantage per Title 1, Section 313, Subsections (a) (1) and (a) (3) of the Vermont Statutes because such information may risk contractual relationships with BED counterparties in the regular sale and purchase of energy and is considered an evaluation of BED personnel.
2. I move that the Commission enter into Executive Session to discuss the KPMG information with the Commission under the provisions of Title 1, Section 313, subsection (a)(1)(A) of the Vermont Statutes.
3. I make a motion to exit the Executive Session at xxxxx p.m. This motion was seconded by Commissioner xxxxxx and approved by all Commissioners present.
4. Commissioner XXXXXX made a motion to accept the KPMG audit report. This motion was seconded by Commissioner XXXXX and approved by all Commissioners present.