

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 (or)
Via Microsoft Teams
[+1 802-489-6254](tel:+18024896254)
Conference ID: 154 453 814#

AGENDA
Regular Meeting of the Board of Electric Commissioners
Wednesday, January 12, 2021- 5:30 p.m.

- | | |
|---|----------------|
| 1. Agenda | 5:30 (5 min.) |
| 2. Minutes of the December 8, 2021 Meeting | 5:35 (5 min) |
| 3. Public Forum | 5:40 (5 min.) |
| 4. Commission Corner | 5:45 (5 min.) |
| 5. GM Update (Oral Update) | 5:50 (10 min.) |
| 6. Financials: FY22 November (Discussion):
Emily Stebbins-Wheelock | 6:00 (10 min.) |
| 7. Street Lighting Policy Update (Discussion): A. Elliston | 6:10 (10 min.) |
| 8. Commissioners' Check-In | 6:20 (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: 154 453 814#

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 01/12/22 meeting)

***** FYI *****

- Minutes of the December 8, 2021 Meeting
- December Monthly Report
- Dashboard
- FY22 November Financials

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



MEMORANDUM

To: Burlington Board of Electric Commissioners
From: Darren Springer, General Manager
Date: January 6, 2022
Subject: **December 2021 Highlights of Department Activities**

General Manager

- **New Hires** – See update below in Center for Innovation for our new Finance Director and IT Director, both starting on January 18th. In addition we've successfully recruited for additional IT staff positions.
- **COVID-19** – With spiking caseloads, we are continuing to utilize remote work options where possible and create rotations and safety procedures to limit exposure for on-site employees. Masking is now required in all BED facilities when two or more people are in a room together, and we've ordered KN95 masks for all employees coming on-site. All City Council and Commission meetings are now remote, with just one person hosting in-person in case members of the public join in-person.
- **Revenue Bond** – We are putting revenue bond funds to work, with the reimbursement resolution now passed by the City Council following recommendation from the Commission. Our team is working to photograph infrastructure projects, and will share news and updates via email, social media, front porch forum, our podcast, and other mediums so the community can see how we are utilizing the funds. Also in January we'll have an announcement on continuing and expanding our key Green Stimulus incentive programs and launching some new programs.
- **District Energy** – We have meetings with UVM and UVMCM in January, as we look to wrap up Phase 3. We also anticipate knowing more about the status of the federal appropriations with Congress looking at a February expiration of the current Continuing Resolution.
- **Low-Income Rate** – BED is working to have a new, permanent low-income discounted rate option ready for FY23, following our temporary energy assistance program which runs through end of FY22.
- **VLITE Grant** – BED was successful in our grant application to VLITE, in partnership with Champlain Housing Trust and CarShare Vermont, with funds supporting adding two new Chevy Bolts to the CarShare fleet in Burlington, and dedicated charging downtown and near The Family Room in the Old North End. We also will have funds to support a new public Level 2 charger in the Old North End location as well.

Center for Innovation - Emily Stebbins-Wheelock

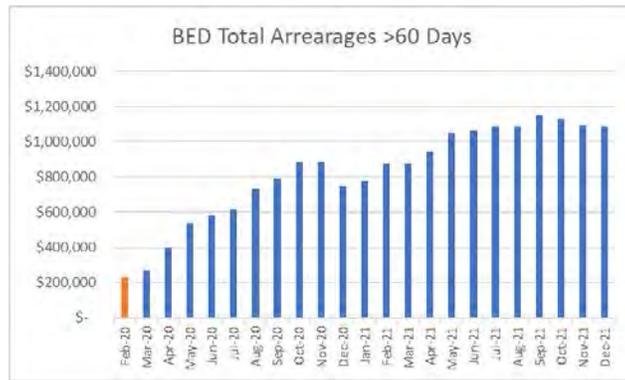
- Successfully completed recruitment of a new Director of Finance for BED. Emily Byrne will join BED on January 18. Emily comes to BED from the State of Vermont where she currently serves as the Director of Finance & Administration for the Agency of Natural Resources and was formerly

the CFO of the Agency of Education and Director of Budget & Management Operations for the Division of Budget & Management.

- Successfully completed recruitment of a new Director of Information Technology for BED. Erica Ferland will join BED on January 18. Erica has over 20 years’ experience in networking and systems administration in senior and team lead roles, most recently as a Senior Systems Engineer and team lead at Competitive Computing.
- Successfully completed recruitment of Systems & Support Analyst position and one Systems & Network Engineer position in Information Services.
- Continued sponsorship of IT Forward implementations.
- Sponsoring internal team reviewing rebate process for efficiencies and effectiveness.
- Facilitating a white accountability group for City employees sponsored by the Racial Equity, Inclusion and Belonging (REIB) Office.

Finance & Accounting

- Completed accounting/chart of accounts setup for Act 151 programs.
- Preparing FY23 budget guidelines.
- Confirmed accounting procedures for FY22 revenue bond projects.
- Assessing new GASB Standard 87-Leases for implementation in FY22.
- Supporting EEU administrative cost review.
- Calendar year-end closing and reporting.
- Monitoring receivables in response to COVID19: as of December 31, 2021, BED’s total non-current receivables had decreased \$35,391 or 2.4% compared to the end of November 2021. Arrearages >60 days were \$1,087,769.



Billing & Analytics

- Functional lead for MDMS replacement and team member on Customer Portal replacement projects, with work on data integrations, data migration, documentation, and data cleanup.

Information Services

- Participated in candidate interviews for IT Director and other IS positions.
- Continued work on IT Forward projects: secure file transfer, AMI integration, data extracts for CIS daily syncs, and MDMS data conversion.
- Preparations for next FIS/CIS upgrade.

- Planning/preparation for staff transitions.

Policy and Planning

- With Finance, drafted proposed new accounting treatment for RES and Tier 3 compliance for external auditors to consider.
- Revised proposal for Solar Test Center layout approved by McNeil (permit filing in January expected).
- Reviewed winter preparedness for units in advance of ISO-NE press release.
- Participated in Global Leadership Program by Vermont Council on World Affairs.
- Submitted comments on DPS Comprehensive Energy Plan.
- Participated in interview/selection process for Finance and IT Director Positions.
- Filed comments on PUC low-income rate and EV rate inventory proceedings.
- Received approval for three dynamic rate pilots through PSD request for information (Rate Design Initiative Grant).
- Closed out REC position for 2021.
- Completed draft Terms & Conditions for new Customer Portal.
- Monitoring 2022 legislative committee activity.
- Filed 2022 Standard Offer Exemption with support from PSD.
- Assisting Customer Care with VERAP billing.
- Participated in RUC (“Road Use Charge”) Advisory Committee meeting.
- Neothermal pilot program underway.

Sustainability & Workforce Development

- Received \$74,550 Vermont Low Income Trust for Electricity (VLITE) grant to expand EV access for low-income residents through car sharing and enhanced charging infrastructure, in partnership with CarShare Vermont and Champlain Housing Trust.
- Co-hosted EV “Ride and Drive” for UVMCC/UVM staff and faculty in conjunction with Green Mountain Power, UVM Transportation Services, UVM Office of Sustainability, and Clean Cities Coalition.
- Hosted several new episodes of the NZE Podcast, including interviews with a Burlington EV owner and about her experience with home charging, a member of the Old Spokes Home Transportation Equity Coalition, and General Manager Springer on the passage of the NZE Revenue Bond.
- Continued management of the Ventilation Improvement Program (VIP) which supports Burlington’s smaller commercial customers and non-profit entities with efficient air quality interventions.
- Held bi-monthly meeting with the Department of Permitting and Inspections on Weatherization in Rental Properties ordinance and composed memo outlining suggesting compliance timeline and schedule. Presented timeline at Ordinance Committee.
- Participated as guest speaker on Burlington’s rental weatherization ordinance to the Urban Sustainability Directors Network “Rental Energy Efficiency” Learning Group. Held call with volunteer energy committee members from Rochester, NY on the ordinance.
- Joined invitation-only call with Boulder, CO, Ithaca, NY, Berkeley, CA and Ann Arbor, MI on efforts to transition away from fossil fuels and strategically electrify the building sector. Considered possible collaboration.

- With the Center for Safety, and hosted by the Clean Cities Coalition, enabled BED staff to test-drive an XL PHEV pickup truck.
- Participated in Burlington 2030 District’s Executive Committee meeting. Set agenda for December meeting, strategized on membership recruitment, and considered 2022 webinars and events.
- Participated in the Chittenden Area Transportation Network quarterly meeting with other Employee Transportation Coordinators on remote work during the pandemic and greenhouse gas ramifications.
- Facilitated Employee Engagement Committee meeting to discuss how to better enhance staff connections throughout the organization.
- Presented the NZE strategy to a UVM undergraduate class.
- Participated in quarterly “Greater Burlington Campus Sustainability Collaborative” meeting with sustainability professionals from UVM and Champlain College.

Center for Safety and Risk Management – Paul Alexander

Safety

- Conducted Generation Safety Committee meeting at McNeil Plant.
- Met with Jim Dutra at GT to review Safety Retrieval device for Tank Room platform.
- Performed various COVID-19 mitigation prevention measures throughout the month.

Environmental

- Completed hazardous transformer inventory and disposal.
- Conducted preliminary environmental review of B100 fuel for GT.
- Planned and scheduled indoor air testing of the Pine Street and Winooski site locations.
- Mitigated two environmental spills.

Risk Management

- Claims Investigations 3 total (0 Power outages, 3 Other).
- Continued research, effort, planning and correspondence on Coronavirus (COVID -19), booster shots, face mask policy, testing kits, return to work plans, health officers, vaccinations, contact tracing, signage, etc.
- Confirmed ISO-NE Reactive Capability Certification and UFSL survey.
- Reviewed Foresters’ Railroad sidetrack agreement with legal.
- Updated Annual NERC Alert member listing.
- Reviewed 2007 thread on street lighting with then insurance broker for BEC.
- Review VLITE agreement for S&WD area.

Purchasing/General Services

- Attended a Microsoft Teams meeting to discuss hybrid conversions for pickup trucks.
- Attended a status meeting on our BED’s electric bucket truck with the State Grants department.
- Attended meeting around re-messaging some of our electric vehicles and van.

Center for Operations & Reliability – Munir Kasti

Engineering and Operations

- Removed leaking transformers from the Memorial Auditorium vault and a cleaning crew removed the contaminated water and cleaned the vault. The vault is currently clear of all transformers.
- Replaced a bad primary sensor on recloser 742R on Intervale Avenue.
- Completed an outage for lower College Street to allow the contractor to remove and reinstall handhole #12 in front of the Echo center.
- Completed the installation of poles and spacers along the railroad tracks and barge canal to finish the 3L4 circuit long spans project.
- Replaced a 75 kVA padmount transformer at 500 Riverside Avenue.
- Installed the fiber cable for the new UVM LCOM project switch including splicing and termination.
- Replaced a street lighting handhole and secondary connectors in the parking lot at BED's Pine Street building.
- Replaced a damaged pole and transferred equipment on South Union Street due to a car pole accident.
- Set a new pole at the Perkins Pier parking lot and transferred the streetlight and services.
- Moved the fiberglass streetlight poles from the pole pile to a new rack in the yard to make room for the wooden poles currently in the dirt parking lot.
- Completed 10 service requests and started the replacement of 175-watt Mercury Vapor street light fixtures to LED fixtures.
- Engineering, Techs, and Generation staff attended 2-day Alba Power Gas Turbine training.
- Continued training personnel at the Gas Turbine.
- Completed the evaluation of SCADA field devices and made product selection.
- Completed shop testing of the new 234R and performed fiber prep work in the field.
- Coordinated with other city departments to gather information on critical facilities in the event of controlled power outages this winter.
- Issued the design and work order for:
 - Scarff Avenue underground system rebuild.
 - 234R recloser replacement on North Avenue.
 - Service to new building at 79 Pine Street.
 - Street Lighting upgrades on Oak Street between St. Mary and St. Louis Streets.
 - Transfer to new pole P278 on Flynn Avenue (replaced by Consolidated Communications).
 - Service to Vermont Railway dinner train near Echo.
- Posted the Distribution Superintendent, Meter Technician, Power System Coordinator, Supervisor of Generation positions.
- Conducted interviews for the Supervisor of Generation position.

Grid Services

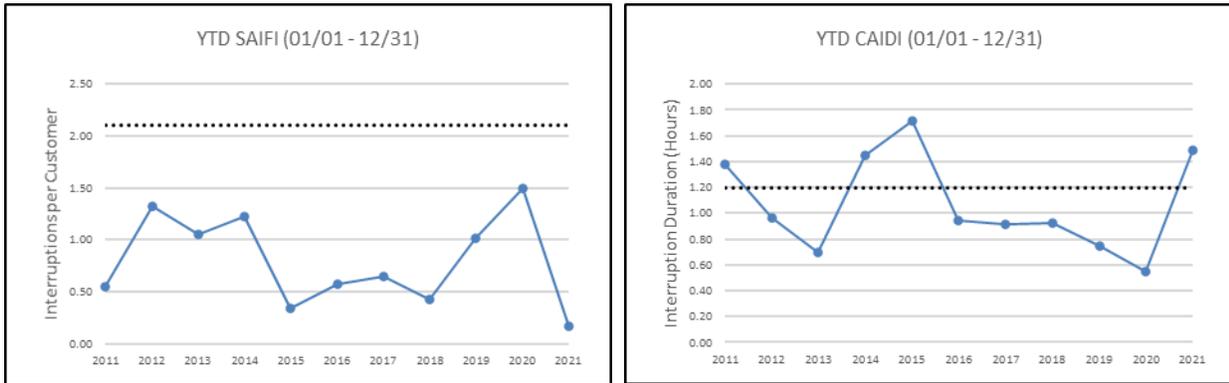
- Hired Ormsby's Computer Systems, Inc. to replace the SCADA firewalls and network switches.
- Drafted SCADA network security policy.
- Continued training the new Power System Coordinator.

SAIFI & CAIDI Outage Metrics:

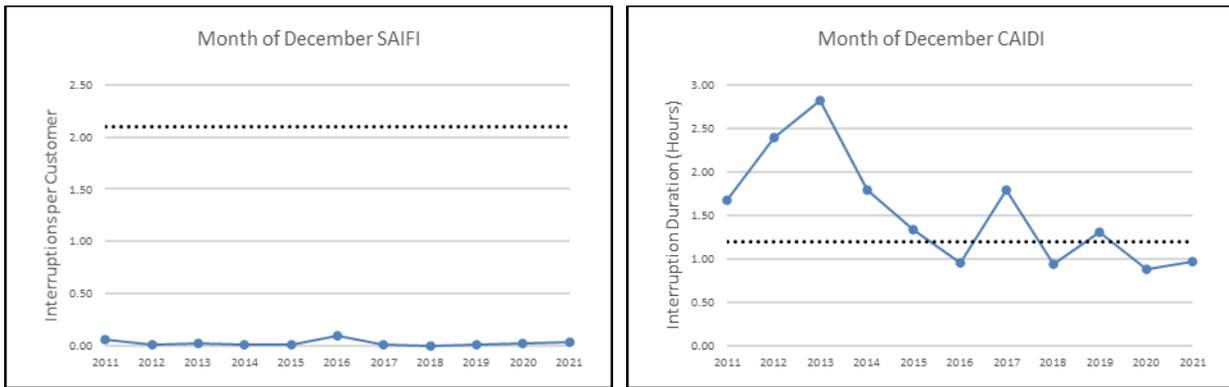
BED’s distribution system experienced 18 outages in December 2021 (11 unscheduled and 7 scheduled). BED’s SAIFI for the Month of December was 0.03 interruptions per customer and CAIDI was 0.96 hours per interruption. BED’s YTD SAIFI is 0.17 interruptions per customer and YTD CAIDI is 1.49 hours per interruption.

The year-to-date CAIDI metric remains above the target of 1.2 hours due to fewer unplanned outages while the planned outages that have occurred required longer duration outages to safely maintain and replace equipment.

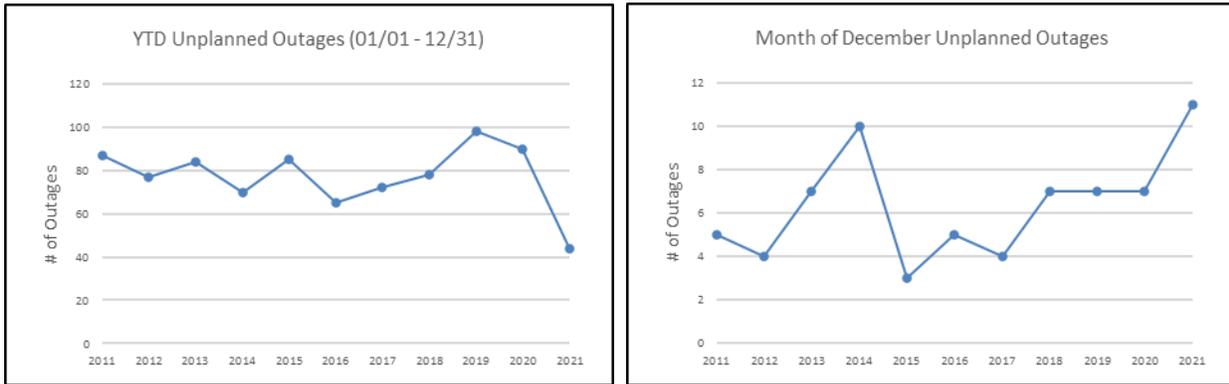
The following figure shows BED’s historical YTD SAIFI and CAIDI:



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



The following figure shows BED’s historical Unplanned Outages:



GENERATION

McNeil Generating Station, December 2021

Month Generation:	30,175.0 MWh
YTD Generation:	273,355 MWh
Month Capacity Factor:	81.1%
Month Availability:	80.8%
Hours of Operation:	619.9 Hours

Mike Mercadante has accepted the position of Yard-Worker; his start date at McNeil was on Monday December 20.

Winooski 1, December 2021

Monthly Generation:	2,903.1 MWh (95.65% of average)
YTD Generation:	24,789.1 MWh (91.64% of average)
Month Capacity Factor:	52.73%
Annual Capacity Factor:	38.24%
Month Availability:	98%

OUTAGES:

There was a 6-hour outage on 12/10/21 due to a windstorm.

Burlington Gas Turbine, December 2021

Month Generation:	14.475 MWh
YTD Generation:	373.246 MWh
Month Capacity Factor:	0.085%
Month Availability:	100.000%
Hours of Operation Unit A:	1.1
Hours of Operation Unit B:	1.1

There was one self-scheduled operation of the asset for asset operability confirmation and operator training. The asset is fully functional and in service at the end of the month.

Solar (Pine Street 107 kW)

Month Generation:	1.8 MWh (-7% from previous year)
YTD Generation:	107 MWh
Month Capacity Factor:	2%

Month Availability: 100%

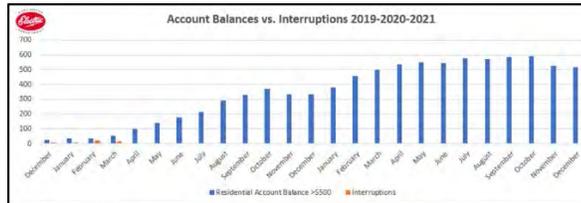
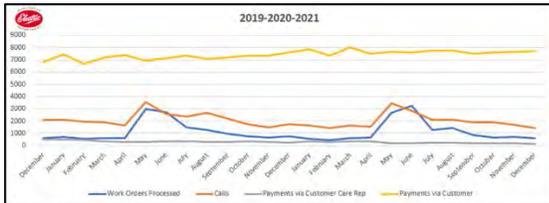
Solar (Airport 499 kW)

Month Generation: 11 MWh (11% from previous year)
 YTD Generation: 555 MWh
 Month Capacity Factor: 3%
 Month Availability: 100%

Center for Customer Care & Energy Services – Mike Kanarick

Customer Care

- Call Answer Time (75% in 20 seconds): December 2021 84.6%, November 85.2%, October 77.7%, September 82.4%, August 81.5%, July 81.6%. December 2020 84.2%, November 85%, October 84.4%, September 84.3%, August 72.1%, July 78.6%. Call answer time nearly the same as (0.6% lower) last month even with holiday vacation schedule and 0.2% higher than same time last year.
- December 2021 Stats: please see dashboard for additional metrics categories.



Communications and Marketing

- Net Zero Energy Revenue Bond press release: during the first week of January, we thanked Burlingtonians via press release for their 70 percent vote in support of BED’s Net Zero Energy Revenue Bond and announced new, expanded, and continuing strategic electrification incentives made possible based on the bond’s passage. We invite you to read the press release by scrolling down to the news section at www.burlingtonelectric.com/nze.
- Temporary Energy Assistance Program to offset 7.5% rate increase: to help offset BED’s first-rate increase in 12 years that began appearing as a surcharge on customer bills in August, we are offering income-qualified customers temporary assistance in the form of a monthly bill credit through June 2022. So far 69 (up from 58) customers have applied with 49 (up from 40) approved and 20 awaiting verification. 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 “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. BED has approved 478 of 696 (up from 411 of 639 in November, from 312 of 561 in

October, and from 280 of 461 in September) program applicants for a total of \$353k (up from \$323k), of which BED has received \$263k (up from \$212k).

- Vermont COVID-19 Arrearage Assistance Program (VCAAP II): The Vermont COVID-19 Arrearage Assistance Program (VCAAP) that was active last fall was back this fall and concluded on October 24. VCAAP II provided financial support to residential (homeowners and renters) and commercial customers who may face disconnection of service because of past-due balances for their electric, landline telephone, natural gas, water, or sewer/wastewater charges. BED approved 271 applicants for a total of \$242,000, of which BED has received \$225,000. VCAAP 1.0 ended in mid-December 2020; BED was successful in securing for our customers \$345,437 (\$259,098 residential and \$86,339 commercial) in grants.
- Net Zero Energy Podcast: with the continuing great production work of BED’s digital guru Adam Rabin and engaging hosting skill of Sustainability Director Jennifer Green, BED’s recently launched Net Zero Energy Podcast continues to publish regular episodes, including the latest about the benefits of BED’s Net Zero Energy Revenue Bond. Please visit www.burlingtonelectric.com/podcast to subscribe.
- Annual Net Zero Energy Calendar Contest: 2022 calendars are available at the reception desk at BED.
- Highlight Hybrid: for a fourth year, BED and VGS partnered with Burlington’s New Year’s Eve event, Highlight (a hybrid event this year with both outdoor in-person and livestreamed events), to encourage our customers to make the change from paper billing to e-billing to help our environment. Nearly 200 customers made the change to e-billing and therefore were eligible to receive one free ticket (\$15 value) to Highlight.
- North Avenue News: our January ad and column thank Burlingtonians for their 70 percent vote in support of BED’s Net Zero Energy Revenue Bond and promotes the new, expanded, and continuing benefits of the bond’s passage.
- December 2021 Website and Facebook Highlights
 - Overall site-wide pageviews for 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
 - January = 20,402
 - December 2020 = 18,797
 - November = 19,638
 - Unique homepage pageviews for 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
- January = 7,571
- December 2020 = 5,561
- November = 7,071

Full site traffic for December 2021

The spike on December 11 was due to an outage we experienced.



- Visitors by website page – please note that some of the columns indicate n/a as the page-specific URLs changed when we launched our new website. We will continue to track this information, which will become more meaningful each month.

page title	Dec 2021	Nov 2021	Oct 2021	Sep 2021	Aug 2021	July 2021	June 2021	May 2021	Apr 2021	Mar 2021	Feb 2021	Jan 2021	Dec 2020	Nov 2020	Oct 2020	Sept 2020
Burlington Electric Department	7353	7246	8186	7845	8464	9164	9085	9867	6884	7234	4550	7571	7130	7071	7497	9277
My Bill	2670	2737	2825	2943	2846	3033	3295	3235	3087	2228	3046	3532	3308	2995	3258	3654
Waste Wood Yard	804	1649	1069	1045	1082	1212	1160	1569	2034	1110	367	979	761	1758	1545	1303
Report A Problem	385	93	235	119	79	153	135	93	60	88	80	80	121	76	140	721
Stop or Start Service	279	306	298	454	867	803	1079	2599	622	337	279	336	277	330	366	502
E-billing	345	274	276	376	345	522	451	337	380	352	368	495	528	397	394	669
Contact Us	439	448	460	577	642	638	731	949	468	560	413	417	467	444	436	547
McNeil Generating Station	379	644	443	347	339	447	429	627	791	547	395	525	507	734	634	548
Heat Pumps	264	394	477	406	496	567	369	82	40	39	46	30	n/a	18	36	36
Rebates	377	501	537	566	571	621	795	n/a								
Rebate Center	419	499	546	530	667	679	319	n/a								
Green Stimulus	27	49	91	106	113	138	233	255	257	280	504	283	208	158	152	171
Stop or Start Service	279	306	298	454	867	803	1079	2599	622	337	279	336	277	330	366	502
Leadership Team	196	222	206	243	276	228	240	212	198	308	218	286	207	193	190	269
Rates & Fees	203	166	214	178	132	143	247	310	184	212	218	161	140	139	190	190
Usage Tracker Registration	142	127	114	94	154	177	223	107	118	150	196	185	209	147	154	201
RFP	152	270	243	452	497	455	158	143	439	393	471	404	258	387	400	383
Residential Ways to Save	157	164	156	172	191	172	220	217	173	175	163	137	159	137	212	172
Electric Vehicles	244	296	289	272	265	245	332	247	258	246	218	210	190	208	296	219
E-Bikes	76	78	161	168	265	207	192	223	242	196	117	106	109	117	131	174
Net Zero Energy News	26	32	67	204	129	115	178	210	132	187	195	228	179	225	222	241
Electric Vehicles	244	296	289	272	265	245	332	247	258	246	218	210	190	208	296	219
COVID-19 Updates	16	22	79	153	166	397	540	335	275	332	301	349	337	323	281	83
Our Energy Portfolio	48	88	104	96	59	42	n/a	51	110	102	101	49	51	53	84	125
Electric Lawn Mowers & Leaf Blowers	39	94	117	150	133	184	229	408	312	176	79	131	70	157	101	88
RFP Detail	n/a	94	49	258	334	185	n/a	23	401	199	414	303	148	293	321	403
Defeat The Peak	12	12	n/a	11	137	22	155	11	17	20	35	n/a	n/a	10	20	n/a
Commercial Ways to Save	43	37	41	98	55	39	62	26	46	59	33	37	41	34	53	33

- Top Facebook posts
 - Four of our top posts were around the Holiday Lights contest.
 - The other is about the December 11 outage mentioned above.

12/22/2021 1:22 pm		Congrats to this year's winners! Follow the link for lots of photos of			502	
12/21/2021 10:38 am		Holiday Customer Care Hours: We will be closed Friday, December 24			294	
12/20/2021 12:07 pm		The 2021 Holiday Lights Contest has begun! Check out the map (linked)			290	

12/11/2021 10:17 pm	 OUTAGE ALERT We are experiencing and outage affecting	 	294	
12/09/2021 7:21 am	 Ready to get festive AND efficient? We are again sponsoring Burlington	 	278	

Blue: clicks / Red: comments, shares

Energy Services

UVM

- Hills Ag-Science Renovation – BED received the preliminary design drawings for this upcoming UVM building renovation project. The complexity of the work suggests that a building energy model is the most effective way to develop a rebate offer. BED still must verify that the design of the building is sufficiently efficient to warrant the cost of this type of detailed analysis. A meeting was held this month between UVM, the energy modeler and design team, and BED to further define energy modeling requirements for the project.

UVMCMC

- Main Parking Garage Lighting Upgrade – The existing 600-plus fixtures in this highly-utilized underground parking garage are of T8 fluorescent technology. BED continues to work with the hospital and their lighting distributor on exploring an upgrade to LED lighting.

Other Services

- 100 Bank St. Office Building / HVAC Controls Optimization – This project was completed some months ago and involved enhanced control of both the air-handling-unit and the chiller system for this seven-story downtown office building. Estimates were made earlier for the energy savings. Now that the systems have been running for a more than a year, final energy savings calculations can be completed. Trend data from the DDC system was used for the calculations, as Covid forced-vacancy effects made AMI data analysis results inconclusive. The updated savings results were finalized this month and entered in the DSM database.
- Burlington City Arts – 405 Pine St. / Major Renovation – This on-going building improvement is happening over several phases, and as financing and fund-raising permit. The goal is to create a space which is Net Zero, or at least Net Zero ready. The phase two energy modeling reports have been made available to BED. A virtual meeting was held this month with the building energy modeler and design engineer to discuss the fine points of developing baseline and proposed models for BCA so that energy savings can be estimated, and a rebate offer developed. At this stage of planning, heat pump technology is likely to be phased in over time when the existing natural gas equipment reaches end of life.
- Echo Center / Net Zero Renovation – The Echo Center (“Vermont’s Science and Nature Museum on the Burlington Waterfront”) has initiated a discussion with BED and consultants from the private sector to develop a plan to move this facility to a net zero operational status. A proposal is presently being generated to outline the series of steps required to develop a final scope of work. It will be based on engineering studies of various possible systems and life-cycle financial analyses. A geothermal system is one system that will likely be considered. Once this proposal is available, BED will determine if there is merit in financially supporting the next steps forward.

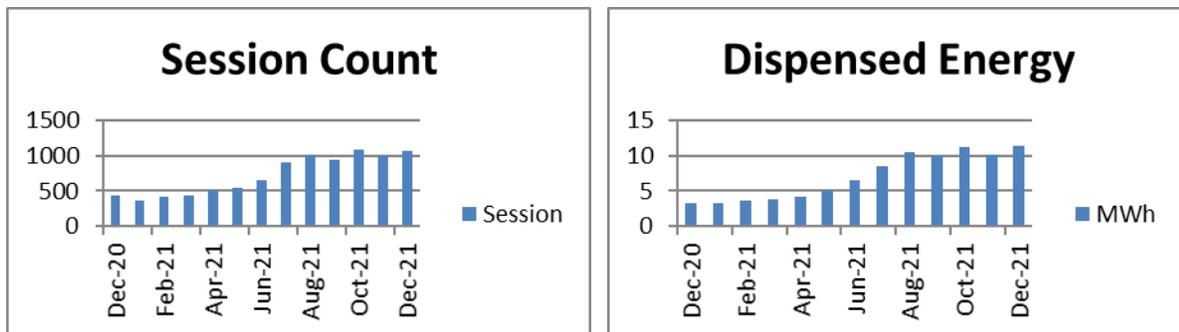
- Hickok & Boardman Office Building / HVAC and Controls Renovation – This extensive equipment and controls upgrade replaced a chiller and a dry cooler and installed a state-of-the-art DDC system throughout the building. The project was completed in early summer 2021, however, BED had left the opportunity open to re-visit the preliminary savings claim after several post-project months of AMI and DDC data became available. A re-analysis of this latest data essentially confirmed our original savings claim. The savings values were finalized in the DSM database this month so that the project could be deemed complete, and the savings claimed.
- Claire Point / Multifamily Condos – HVAC Upgrade – The owner has opened discussions with BED concerning the end-of-life replacement of aging boilers in this two-building 28-unit condominium complex in the New North End of Burlington. There is interest in investigating the potential of a geothermal system to serve these buildings, rather than replacing in-kind the existing natural gas boilers. BED has discussed how a more in-depth evaluation might take place before going further with any major equipment investments. There is a timeline of about two years before the final decision on equipment replacement must be made.
- Hines Lofts / HVAC Replacement – This building is a 14 multi-family unit at 161 St. Paul Street which was a major renovation project in 2008. The HVAC systems, including the natural gas boilers are reaching end-of-life. The condo association is interested in investigating the potential of moving away from natural gas heat towards a non-fossil fuel solution for heating. BED has begun a high-level study of the most likely approaches to take and defining the level of Tier 3 funding that might be available should the upgraded HVAC system significantly off-set the existing use of natural gas heating fuel.
- Cathedral of St. Paul / High Bill Inquiry – This organization has recently joined the Burlington 2030 District, which has quantified goals for energy use reductions in different building types throughout the city. It has also been noted that the monthly electric bill for the building is fairly high. An initial analysis of the AMI data for the account does show some high loads that continue on throughout unoccupied hours and overnight. This began occurring ever since the building transitioned to being reoccupied in late Spring, 2021 after an extended Covid-based unoccupied period. It's been suggested that the ventilation rate in the building had been increased at that time to enhance covid safety. The details of this are now being looked into more thoroughly.
- Airport Terminal Integration Project – The Burlington International Airport is in the process of constructing an addition to the existing terminal. The \$14.5 million Terminal Integration Project will expand the airport's terminal building by 26,240 square feet. It will consolidate security checkpoints and create a more direct route between passenger concourses. BED attended the kick-off meeting at the airport for the commissioning of the new structure and the systems within it. The shell has been partially enclosed, but equipment installation has not yet begun. It is yet unknown whether any energy efficient measures incorporated in the design will result in BED incentives.
- 77 Pine St. Renovation / Bank Offices and Multifamily – The north side of this renovated building are occupied with bank offices, and it has been fully occupied since April, 2021. Just being completed is the renovation of the south side of the building, which consists of 70+ apartment units that use heat pumps as the primary heating and cooling source. The entire building underwent a blower door test during this month with results putting the building in the “High Performance” category for infiltration. This is particularly impressive since the project is working with an existing shell which is more difficult to air seal than an entirely new assembly. BED is now

working on calibration of the bank side energy model in comparison to the actual energy usage of that half of the building.

- YMCA New Construction / Final Calibration and Savings Claim – This new YMCA facility on College St. has been completed and in operation for nearly two years. However, covid restrictions have interfered with final savings calculations. BED is presently confirming that the energy model and actual building operations are in step with one-another. Once done, the formal energy savings claim can be determined. One concern that has been noted is the unexpectedly high natural gas consumption of the finished building. BED completed a site visit in conjunction with the M&V team representing the PSD. Various loggers were installed, and other data gathered for use in updating the energy model. The loggers will be removed sometime in early January and that data used to further inform the calibration work.
- Weatherization coordination with VGS - VGS requested electrical account usage histories (with customer permission) for 3 SF and 5 MF buildings (representing 12 living units) this month for the purpose of weatherization audit preparation and building energy use analysis. This brings the total TTD requests to 103 SF and 67 MF buildings (representing 215 living units).
- Enrolled the eighth home in the BTV NZE Home Pilot Program with VGS. Each owner will receive a comprehensive NZ roadmap that is customized for their home and budget.

Electric Vehicles

- The EVSE dispensed a total of 11.4 MWh and supported 1,065 sessions.
- The top 3 sales were 65, 66 & 69 kWh and occurred at the College St. and the Cherry St. garages.
- The top 10 sessions (0.9% of total) accounted for 5.5% (632 kWh) of the total monthly sale. The ten sessions ranged from 59 kWh-60 kWh.
- The Pine St. DC fast charger accounted for 21 of the 1,065 sessions and dispensed 2.0% of the total energy.
- The EVSE served 494 unique drivers.
- Nine stations received LTE modem upgrades. All stations will remain on ChargePoint network as 3G is phased out.
- Session Count and Dispensed Energy plots from the from the public charging network are shown below.



- Number of EV and PHEV rebates to date – 342 (of this 53 LMI rebates to date as shown below)
 - New All Electric Vehicle – 144
 - New All Electric Vehicle (LMI) – 26
 - New PHEV – 98

- New PHEV (LMI) – 28
- Used All Electric Vehicle – 22
- Used All Electric Vehicle (LMI) – 1
- Used PHEV- 12
- Used PHEV (LMI) – 1
- All Electric Vehicle (\$50K plus) – 10
- Number of customer loans with lending partners to date – 5
- Number of customers currently participating in the new EV Rate- 98
- Number of EV home charging stations rebates to date – 56

Electric Lawn Equipment to Date

- Number of e-mower rebates to date – 393 (11 commercial & 382 residential)
- Number of e-leaf blowers to date – 33

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

- Total Number of Heat Pump Technology rebates to date- 579 (of this 78 LMI rebates to date as shown below):
 - Number of ductless heat pumps to date – 370
 - Number of centrally ducted heat pumps to date – 112
 - Number of air to water heat pumps to date – 1
 - Number of geo-thermal heat pump systems to date – 1
 - Number of income-eligible space conditioning heat pump participants to date – 74
 - Number of heat pump hot water heaters to date – 17
 - Number of income-eligible heat pump hot water heaters participants to date - 4

Electric E-Bikes to Date

- Number of e-bike rebates to date – 268

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

- Number of induction Stovetops rebates to date – 11

BED 2021-2022 Strategic Direction Dashboard

Metrics by Strategic Initiative	Target	Dec 2021 Actuals	Nov 2021 Actuals	Oct 2021 Actuals	Sept 2021 Actuals	Aug 2021 Actuals	July 2021 Actuals	June 2021 Actuals	May 2021 Actuals	Apr 2021 Actuals	Mar 2021 Actuals	Feb 2021 Actuals	Jan 2021 Actuals	2020 Yearly Actual	2019 Yearly Actual
Engage Customers and Community															
Call answer time 75% within 20 seconds	75%	85%	85%	78%	82%	82%	82%	69%	65%	91%	89%	93%	87%	avg 81%	
Delinquent accounts >\$500	0	517	526	592	588	573	578	545	552	535	500	458	378	avg 201	
Disconnects for non-payment	0	0	0	0	0	0	0	0	0	0	0	0	0	45	
# of residential weatherization completions	10	1	0	0	0	1	0	1	1	0	1	0	0	3	11
Weatherization completions in rental properties		-	-	0	0	-	0	0	-	-	0	0	0	0	TBD
# or % of homes or SF weatherized	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0
Champ Challenge weatherization participants		0	0	0	0	0	0	0	0	0	0	0	0	1	TBD
# of commercial building with improved thermal envelopes		0	0	1	1	1	0	0	1	0	1	0	0	5	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	TBD	TBD
Strengthen Reliability															
SAIFI (AVG interruptions/customer) (annual target)	< 2.1	0.03	0.02	0.04	0.02	0.002	0.06	0.02	0.01	0.004	0.01	0.004	0.002	1.50	1.03
CAIDI (AVG time in hrs to restore service) (annual target)	< 1.2	0.96	0.73	1.88	0.90	1.87	1.95	3.85	0.75	0.77	0.49	1.05	0.72	0.55	0.75
Distribution System Unplanned Outages (annual target)	82	11	3	2	4	4	7	3	0	1	3	2	4	90	98
McNeil Forced Outages	0	1	0	0	1	1	1	0	0	0	0	0	1	21	TBD
W1H Forced Outages	0	1	1	1	1	0	2	0	0	0	2	1	0	2	TBD
GT Forced Outages	0	0	0	0	0	0	0	0	0	0	1	0	1	3	TBD
Invest in Our People, Processes, and Technology															
Avg. # of days to fill positions under recruitment	120	92	74	87	81	76	64	60	47	65	35	77	62	179	
# of budgeted positions vacant	0	9	10	7	13	14	11	10	7	6	6	6	7	6	NA

BED 2021-2022 Strategic Direction Dashboard

Metrics by Strategic Initiative	Target	Dec 2021 Actuals	Nov 2021 Actuals	Oct 2021 Actuals	Sept 2021 Actuals	Aug 2021 Actuals	July 2021 Actuals	June 2021 Actuals	May 2021 Actuals	Apr 2021 Actuals	Mar 2021 Actuals	Feb 2021 Actuals	Jan 2021 Actuals	2020 Yearly Actual	2019 Yearly Actual
Innovate to Reach Net Zero Energy															
<i>Tier 3 Program</i>															
# of residential heat pump installs		16	44	12	39	14	58	32	25	30	7	14	24	203	10
# of commercial heat pump installs		0	1	1	1	0	0	0	1	0	0	0	0	13	0
# of residential hot water heat pump installs		2	1	2	3	0	2	0	2	1	0	0	1	6	4
# of commercial hot water heat pump installs		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heat pump rebates		18	47	13	40	14	58	36	26	30	7	14	25	212	0
Heat pump hot water heater rebates		2	1	2	3	0	2	0	2	1	0	1	1	3	0
LMI heat pump rebates		0	2	1	8	0	2	2	4	8	0	1	0	6	4
Heat pump technology installs in rental properties		0	0	2	1	2	2	2	3	0	0	2	0	9	TBD
LMI heat pump hot water heater rebates		0	0	1	0	0	0	0	0	-	0	1	0	0	1
EV rebates - new		2	3	5	4	1	15	6	10	4	7	4	6	14	36
EV rebates - pre-owned		1	0	2	1	0	0	0	0	1	0	1	1	8	2
LMI EV rebates	See NZE Roadmap Goals below	0	2	1	1	0	3	1	2	0	0	1	0	7	7
PHEV rebates - new		7	2	6	4	2	3	5	1	3	5	3	0	10	17
PHEV rebates - preowned		1	0	0	0	0	0	0	2	0	1	2	0	5	3
LMI PHEV rebates		3	4	1	0	1	2	1	0	0	0	1	0	6	2
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	27 ports	27 ports	27 ports
Public EV charger energy dispensed (kWh)		11,400	10,100	11,100	9900	10,500	8,500	5,060	5,070	4,200	3,860	3,600	3,280	35,690	78,000
Home EV charging station rebates		1	2	4	3	5	1	5	3	0	3	3	2	20	12
EV rate charging customers (total)		98	93	88	77	73	65	65	60	56	52	49	47	40	28
Level 2 charger rebates		0	0	0	0	0	0	0	0	0	0	10	0	0	1
Level 1 charger rebates		0	0	0	0	0	0	0	0	0	0	0	0	1	0
E-bike rebates		2	5	8	5	5	0	35	19	0	8	0	1	36	65
E-mower rebates		4	1	0	31	19	18	23	34	16	6	1	1	95	142
E-forklift rebates		0	0	0	0	0	0	0	0	0	0	0	0	0	0
MWE of Tier 3 measures installed		749	1,868	1,673	2,554	1,688	3,919	3,127	2,135	1,339	1557	818	2,064	35,112	3,342
% Tier 3 obligation met with program measures	100%	157%	152%	140%	129%	111%	100%	74%	53%	39%	30%	19%	14%	283%	31%
<i>Net Zero Energy Roadmap Goals</i>															
# of solar net metering projects installed		2	2	0	3	2	5	2	1	1	1	5	5	24	33
No. of homes receiving NZE Home Roadmaps		2	1	1	2	1	1	0	0	0	1	1	0	7	
Residential heat pumps for space heating (no. of homes)	2020: 3963	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	891, 22% of goal	572
Commercial heat pumps for space heating (SF floor space served)	2020: 1190	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1304, 110% of goal	374
Residential heat pumps for water heating (no. of homes)	2020: 1466	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	92, 6% of goal	87
Commercial heat pumps for water heating (SF floor space served)	2020: 263	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	-
EV registrations in BTV (light-duty)	2020: 548	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	356, 65% of goal	291
Greenhouse gas emissions (1000 metric tons CO2)	2020: 190	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	182, 104% of goal	211
Fossil fuel consumption (billion BTU)	2020: 3207	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3142, 102% of goal	3,619
<i>Demand Response</i>															

BED 2021-2022 Strategic Direction Dashboard

	Target	Dec 2021 Actuals	Nov 2021 Actuals	Oct 2021 Actuals	Sept 2021 Actuals	Aug 2021 Actuals	July 2021 Actuals	June 2021 Actuals	May 2021 Actuals	Apr 2021 Actuals	Mar 2021 Actuals	Feb 2021 Actuals	Jan 2021 Actuals	2020 Yearly Actual	2019 Yearly Actual
Metrics by Strategic Initiative															
Manage Budget and Risks Responsibly															
<i>Safety & Environmental</i>															
No. of workers' compensation/accidents per month	0	0	0	0	0	1	0	0	1	0	2	0	0	8	
Total Paid losses for workers' compensation accidents (for the month)	\$225,000 annual	\$1,019	\$7,873	\$3,830	\$4,406	\$2,279	\$8,109	\$43,320	\$7,042	\$2,809	\$8,289	\$2,768	\$1,868	\$165,402	\$38,288
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	N/A	N/A	N/A	0.93	0.89
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	N/A	N/A	N/A	41.71	78.2
Lost work days per month	0	0	0	0	0	0	0	0	0	0	0	0	0	45	
NOx reporting levels to EPA (Quarterly) (lbs/mmbtu)	<0.075	0.070	0.070	0.069	0.068	0.071	0.068	0.068	0.069	0.071	0.068	0.069	0.067	0.07	
# of reported spills, waste water incidents (monthly)	0	0	2	0	1	0	0	1	0	0	0	0	0	4	
Phosphorus levels to DEC in lbs (monthly/yearly total)	<0.8/37	0.019/2.028	0.069/2.376	0.069/2.376	.092/1.581	0.116/1.489	0.116/1.489	0.034/1.373	0.048/1.339	0.17/1.291	0.631/1.121	0.192/0.192	0.334/1.81		1.169
# of new power outage claims reported (monthly)	1	0	2	1	0	0	1	1	0	1	0	1	0	4	
# of new auto/property/other liability claims reported (monthly)	2	3	0	2	2	2	2	1	1	1	2	2	0	27	
<i>Purchasing & Facilities</i>															
# of Purchase Orders for Inventory (Target: avg for winter months)	42	80	34	41	51	112	56	37	30	32	53	28	90	593	
\$ value of Purchase Orders for Inv. (Target: avg dollars spent during winter)	\$78,000	\$214,140	\$137,698	\$240,198	\$91,052	\$1,871,500	\$98,535	\$105,330	\$65,173	\$31,021	\$139,566	\$193,052	\$91,356	975,531	
# of stock issued for Inventory (Target: avg during winter months)	320	387	302	369	495	336	420	406	265	501	272	334	315	4,545	
\$ value of stock issued for Inventory (Target: avg. during winter)	\$ 65,000	\$ 82,565	\$ 73,872	\$ 81,183	\$ 86,977	\$ 36,471	\$ 71,605	\$ 100,339	\$ 45,103	\$ 75,434	\$ 61,775	\$ 37,230	\$ 102,901	1,086,478	
# of posters pulled from poles monthly (Target: goal to remove each month)	58	90	52	458	364	503	237	205	185	221	176	72	165	627	
# of Spark Space and Auditorium setup/breakdowns monthly (Target: Covid impact)	3	8	5	10	26	6	6	9	4	4	8	1	1	87	
<i>Finance</i>															
Debt service coverage ratio	1.25		4.53	4.29	4.04	3.77	3.91	NA	4.05	4.47	3.89	4.01	3.56	NA-FY basis	NA
Adjusted debt service coverage ratio	1.5		1.18	1.10	1.03	1.01	0.96	NA	1.01	1.15	0.96	1.02	0.86	NA-FY basis	NA
Days unrestricted cash on hand	>90		138	108	121	125	116	NA	117	127	122	126	109	NA-FY basis	NA
<i>Power Supply</i>															
McNeil generation (MWH) (100%)	per budget	30,175	6,113	28,417	11,587	28,792	26,094	18,302	15,925	17,407	35,682	32,549	22,312	192,696	
McNeil availability factor	100%	81%	30%	90%	80%	81%	71%	93%	95%	76%	100%	100%	61%		
McNeil capacity factor	per budget	81%	17%	76%	32%	77.4%	70%	51%	42.8%	48.3%	95.9%	96.9%	59.9%		
Winooski One generation (MWH)	per budget	2,903	3,040	1,541	921	1,687	2,051	642	2,636	3,713	2,872	1,162	1,584	21,194	
Winooski One availability factor	100%	98%	97%	97%	97%	99.8%	99.8%	100%	100%	96%	100%	90%	90%		
Winooski One capacity factor	per budget	53%	37%	35%	18%	30.6%	37%	12%	48%	70%	52%	23%	29%		
Gas Turbine generation (MWH)	NA	14.5	0.0	7.6	15.3	118.1	87.0	32.6	15.4	18.5	29.4	17.8	16.9	441	
Gas Turbine availability factor	100%	100%	100%	55%	100%	99.5%	100%	95%	100%	100%	99.9%	100%	99%		
Gas Turbine capacity factor	NA	0.085%	0.0	0.045%	0.11%	0.83%	0.61%	0.24%	0.09%	0.11%	0.17%	0.115%	0%		
BTV solar PV production (mWh)		159	263	336	471	588	542	644	642	525	548	190	107	5,182	
Cost of power supply - gross (\$000)			\$2,440	\$2,476	\$2,576	\$2,732	\$2,483	\$2,564	\$2,431	\$2,092	\$2,955	\$2,477	\$2,457	\$31,081	
Cost of power supply - net (\$000)			\$656	\$2,476	\$2,576	\$169	\$2,483	\$2,564	\$2,090	\$514	\$2,955	\$592	\$2,457	\$23,388	
Average cost of power supply - gross \$/KWH			\$0.10	\$0.09	\$0.10	\$0.08	\$0.08	\$0.09	\$0.10	\$0.09	\$0.11	\$0.10	\$0.09	\$0.10	
Average cost of power supply - net \$/KWH			\$0.03	\$0.09	\$0.10	\$0.01	\$0.08	\$0.09	\$0.08	\$0.02	\$0.11	\$0.02	\$0.09	\$0.08	

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

Wednesday, December 8, 2021, 5:30 pm

The regular meeting of the Burlington Electric Commission was convened at 5:32 pm on Wednesday, December 8, 2021 via Microsoft Teams Video Meeting.

Channel 17 was present via Microsoft Teams Video to record this meeting.

Commissioners Chagnon, Herendeen, Moody, Stebbins, and Whitaker participated via Microsoft Teams.

Staff members present included Darren Springer, Paul Alexander, James Gibbons, Mike Kanarick, Munir Kasti, Laurie Lemieux (Board Clerk), Dave MacDonnell, Paul Pikna, and Emily Stebbins-Wheelock.

1. Agenda

There were no changes to the Agenda.

2. October 27, 2021 Special Meeting Minutes and November 10, 2021 Meeting Minutes

Commissioner Chagnon made a motion to approve the minutes of the October 27, 2021 Commission Meeting; the motion was seconded by Commissioner Whitaker.

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

Commissioner Chagnon. Aye
Commissioner Herendeen. Abstained
Commissioner Moody. Abstained
Commissioner Stebbins. Aye
Commissioner Whitaker. Aye

Results: 3 Ayes with 0 Nays, the motion carries.

Commissioners Herendeen and Moody abstained from the vote as they were not present for the October 27, 2021 Special Commission Meeting.

Commissioner Herendeen made a motion to approve the minutes of the November 10, 2021 Commission Meeting; the motion was seconded by Commissioner Whitaker.

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

Commissioner Chagnon. Abstained
Commissioner Herendeen. Aye
Commissioner Moody. Aye
Commissioner Stebbins. Aye
Commissioner Whitaker. Aye

Results: 4 Ayes with 0 Nays, the motion carries.

Commissioner Chagnon abstained from the vote as he was not present for the November 10, 2021 Commission Meeting.

At this time, Commissioner Whitaker left the meeting due to a prior commitment.

3. Public Forum

Present for the meeting were Mr. Thomas Melloni, Esq. and Ms. Kathy Zhou, Esq. both from the Paul, Frank, and Collins law firm.

4. Commissioners' Corner

Commissioner Herendeen congratulated the BED Team for all its hard work on the Net Zero Energy Revenue Bond, which was passed by Burlington voters by an overwhelmingly large margin.

Mr. Springer stated that BED is very proud of the results of the Net Zero Energy Revenue Bond. It is a testament to the entire BED Team and organization that there is continued confidence from the community and the investments that were proposed. The Department is grateful to the community for all the support.

5. GM Update

Mr. Springer stated that BED is partnering with CarShare Vermont and Champlain Housing Trust on a proposal to VLITE that will be considered in December to add two new electric vehicles to the CarShare fleet in Burlington, one of which will be located near the Family Room in the Old North End. The proposal includes dedicated charging for the CarShare EVs, and an additional public charger in the Old North End that would expand access to charging for residents.

Mr. Springer stated that we continue to have a number of discussions about a Burlington District Energy System. BED, VGS, and Ever-Green will meet with UVM and UVMC as we work to wrap up Phase 3 of the feasibility work. During Phase 3, to-date, we have worked with the McNeil Joint

Owners to reach an agreement in principle on a McNeil term sheet, performed extended testing at McNeil to ensure that we can accommodate district energy operationally, had a third-party engineering design review for UVMMC, and further refined the project's financials.

An agriculture subcommittee of the Vermont Climate Council had proposed, without consensus, some recommendations that would jeopardize our ability to pursue district energy and could even lead to a forced shutdown of existing wood-chip plants in Vermont. BED, GMP, VPPSA, and IBEW sent a letter outlining our serious concerns with both the process and the substance. Ultimately, the full Council took a straw poll vote on the language showing that there it did not have support; so the Council tabled the recommendations, and the Council's Cross-sector Mitigation Subcommittee, which includes energy sector representation, now will engage further on this issue. We will continue to monitor and engage on this issue.

Commissioner Stebbins asked Mr. Springer to update the Commission on the various open positions at the Department and the progress being made to fill these positions.

Mr. Springer stated that the Department has made a successful offer to bring on a Finance Director, who we anticipate will start work in January. Mr. Springer stated that we are unable to announce the individual's name as of yet but will soon do so. Ms. Stebbins-Wheelock has been leading a number of IT Team search processes, and we are in the process of making offers. There have been challenges from a workforce standpoint, as we have had several turnovers in certain areas. We have potential candidates who are considering moving to Vermont from other states. The City currently is considering a long-term, remote work policy that may help support our recruitment and retention efforts. Hopefully in January or February, we will have additional employees on board and introductions to make.

Commissioner Stebbins stated that she was glad to see arrearages are starting to come down and asked if the Department is seeing uptake with the VCAAP and VERAP programs and if there was anything more that can be done to close the gap by helping customers connect with available opportunities.

Mr. Springer stated that we had around \$500K total of assistance that's been provided through VCAAP and VERAP, the program supporting income-qualified renters with electric utility relief. VCAAP closed in October, although there are a few lingering applications in process where we may have further reimbursement coming to BED. VERAP will continue through the fiscal year, and perhaps even longer depending on the funding. There also may be additional assistance for income-qualified homeowners as opposed to renters, perhaps through a VHFA program that may be coming soon. Our Customer Care Team is working hard to move customers through the process with the various state programs.

Mr. Springer stated that we were able to successfully achieve the ARPA funding allocation from the City and that we have the ARPA funding in reserve and, as we move through the state programs, our hope is to apply the ARPA funding, prior to the end of FY22 to help clear what remains of the

arrears at that point.

Commissioner Stebbins also asked for an update on the rental weatherization ordinance.

Mr. Springer stated that our team has been working on energy services with VGS to identify which joint customers would need to comply with the ordinance. The ordinance, as passed, focuses on creating groups based on highest energy use buildings. There are groups of buildings that are below a certain energy use threshold that are not likely to be subject to the ordinance. Our team, along with the permitting team, has identified the buildings that will need to comply and will let them know that they are subject to the ordinance and should get into the queue for weatherization assistance service and that there will be added incentives available through programs offered by BED and VGS.

Commissioner Stebbins asked about vehicle-to-grid technology vendors and stated that her interest comes from the huge potential for the creative use of electricity that is sitting in EV batteries.

Mr. Gibbons stated that the problem to consider is the impact on the EV and the warranty of using it in ways to back up the grid. Mr. Gibbons stated that he would reach out to his team members Freddie Hall and Casey Lamont to provide the Commission with more information.

6. FY22 October Financials

Ms. Stebbins-Wheelock reviewed the analysis of the deviation of sales to customers compared to pre-COVID levels through October 2021. Sales to customers in September and October 2021 were down 2% overall, with residential sales increased 3% and commercial sales decreased 3%, respectively, compared to pre-COVID levels. The variation from typical pre-COVID levels this fall has been less than that seen during most previous months during the pandemic.

Ms. Stebbins-Wheelock reviewed the budget-versus-actual results for the month of October FY22. On the revenue side, actual sales to customers were unfavorable to budget by \$41K. Residential sales were up \$57K and commercial sales were down \$100K. Other revenues were down \$26K compared to budget. Ms. Stebbins-Wheelock stated that the financial packet presented to the Commission has been enhanced to include two new graphs showing cooling degree days (actual versus budget) and heating degree days (actual versus budget) instead of the average monthly temperature graphs that were provided previously. The Department's load forecasting and financial analysis staff felt that these graphs give a more nuanced picture of actual vs predicted weather and this variance's relationship to electric sales.

Net power supply expenses were down \$156K, with purchased power savings of \$564K offsetting unfavorable variances in fuel and transmission expenses. Other operating expenses were essentially on budget. Other income was \$227K under budget for October, mostly due to customer contributions not arriving as planned.

For FY22 year-to-date, the Department ends the month with a negative variance of \$617K vs. budget. Ms. Stebbins-Wheelock stated that the year-to-date results are worse than was reported to the Commission in November due to an error in the September FY22 financial results as reported. We reported that September FY22 sales were significantly better than budget, but we had not concluded all of our external financial reporting at that time. In the process of conducting that reporting, the Finance and Accounting team discovered that September 2021 sales had been overstated by approximately \$600K. The error was caused by a mistake in the monthly estimation of unbilled revenue that we perform to account for the electricity that has been delivered but not yet billed for that month, depending on where the billing cycle falls against the close of the accounting period.

As of October, the Department has spent 18% of the FY22 capital budget and has an operating cash balance of \$9.2M or 108 days cash on hand. The debt service coverage ratio is 4.29 and the adjusted debt service coverage ratio is 1.10.

7. Revenue Bond Reimbursement Resolution

Ms. Stebbins-Wheelock stated that with Burlington voters' approval of the revenue bond on December 7, the BED Finance team has begun working with the City and its bond counsel, Mr. Thomas Melloni and his colleagues at Paul, Frank & Collins, to prepare for bond issuance. The proposed City Council resolution will enable the Department to begin working on capital projects that will be funded with bond proceeds in advance of the bond being issued. This will enable BED to reimburse itself from the bond funds after issuance.

Mr. Melloni stated that the resolution submitted for consideration is to comply with federal tax law that allows BED to expend funds on hand now for the capital projects with an expectation that the Department will be reimbursed when it issues the tax-exempt bond, which is expected to be in the spring of 2022. The requirement under the tax regulation is that the issuer declare "official intent" that it expects to reimburse itself. This rule is imposed by the IRS to prevent a municipality, state, or local government from issuing bonds today for a project that was completed years ago and using the cash on hand.

Mr. Melloni continued that it is expected that this resolution will be presented to the Board of Finance and then the City Council on December 13, because those bodies ultimately have approval for the incurrence of indebtedness. It was determined that a two-step process be followed, and the resolution would be presented to the Board of Electric Commissioners for its approval prior to the vote of the City Council.

Commissioner Herendeen made a motion to advance the resolution as presented to the Board of Finance and City Council; the motion was seconded by Commissioner Stebbins.

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

Commissioner Chagnon. Aye.
Commissioner Herendeen. Aye
Commissioner Moody. Aye
Commissioner Stebbins. Aye

Results: 4 Ayes with 0 Nays, the motion carries.

8. McNeil Station 2022 Calendar Budget

The draft CY22 expense budget is \$28,531,577 as compared to \$27,165,763 for the CY21 budget. The CY22 budget is approximately \$1,365,814 more than the approved CY21 budget. The increase can be explained by an increase in the fuel expense budget of \$584,812. In CY21, the wood tons were budgeted at 419,085 tons, and the price per ton was at \$27.85/ton for an annual average, in CY22, we have budgeted 420,232 tons with a price per ton annual average of \$28.00/ton to accommodate the current wood chip market. The remaining expense budgeted increase of \$781,002 is due to the rising cost of materials and labor, planned CY22 annual overhaul, and raising property taxes.

The capital budget for CY22 is \$2,061,391, as compared to CY21 was \$1,552,328 for a difference of \$509,063. The main reason for the increase of our capital budget is that we did not have an annual overhaul in CY21 due to COVID. We last had an overhaul in September of 2020, our next overhaul has been approved by ISO NE to start on April 23, 2022.

Commissioner Herendeen made a motion to accept the budget as presented; the motion was seconded by Commissioner Chagnon.

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

Commissioner Chagnon. Aye
Commissioner Herendeen. Aye
Commissioner Moody. Aye
Commissioner Stebbins. Aye

Results: 4 Ayes with 0 Nays, the motion carries.

9. Commissioners' Check-In

No Commissioners offered any items for check-in.

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

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

Commissioner Chagnon. Aye
Commissioner Herendeen. Aye
Commissioner Moody. Aye
Commissioner Stebbins. Aye
Commissioner Whitaker. Aye

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

The meeting of the Burlington Electric Commission adjourned at 6:42 p.m.

Attest:



Laurie Lemieux, Board Clerk



*FY 2022
Financial Review
November*

January 4, 2022

Burlington Electric Department Financial Review

FY 2022

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FINANCIAL HIGHLIGHTS – BUDGET VS ACTUAL as of November FY22

(\$000)	Full Yr Budget	CURRENT MONTH			YEAR TO DATE		
		Budget	Actual	Variance	Budget	Actual	Variance
Sales to Customers	48,172	3,691	3,568	(123)	20,392	20,377	(15)
Other Revenues	3,978	331	196	(135)	1,571	1,223	(348)
Power Supply Revenues	8,404	1,717	1,784	67	4,175	4,346	171
Total Operating Revenues	60,554	5,739	5,548	(191)	26,138	25,946	(192)
Power Supply Expenses	32,155	2,708	2,440	268	13,125	12,707	418
Operating Expense	21,543	1,671	1,460	210	8,481	7,849	632
Depreciation & Amortization	6,007	501	512	(11)	2,503	2,560	(57)
Gain/Loss on Disp of Plant	291	0	0	0	143	130	13
Taxes	3,935	330	280	50	1,646	1,392	254
Sub-Total Expenses	63,932	5,209	4,692	517	25,898	24,638	1,260
Operating Income	(3,378)	530	855	325	240	1,308	1,068
Other Income	6,588	670	397	(273)	3,511	1,875	(1,636)
Interest Expense	2,402	201	189	12	989	974	15
Net Income (Loss)	808	999	1,063	64	2,762	2,209	(553)

Year-to-Date Results:

- **Sales to Customers** down \$15,000 (within .07% of budget). Residential Sales up \$445,100 and Non-Residential Sales down, \$443,900.
- **Other Revenues** down \$348,000 (22%)
 - a. DSM billable (customer driven) down \$299,300.
- **Power Supply Revenues** up \$171,000 (4%)
 - a. McNeil REC revenue of \$2,410,000 compared to a budget of \$1,953,000.
 - b. Wind REC revenue of \$1,538,000 compared to a budget of \$1,677,000.
 - c. Hydro REC revenue of \$324,000 compared to a budget of \$447,000.
 - d. Other REC revenue of \$74,000 compared to a budget of \$98,000.
- **Power Supply Expenses** down \$418,000 (3%)
 - a. Purchased Power down \$202,000.
 - b. Transmission Fees down \$118,000.
 - c. Fuel down \$98,000.
- **Taxes** down \$254,000 (15.4%)
 - a. Actual Payment in Lieu of Tax (PILOT) is less than budget assumption. This is projected to be a \$580,000 positive variance for the year.
- **Operating Expenses** down \$632,000 (7.5%)
 - a. Various items are less than budget. This includes outside services (\$372,000), materials & supplies (\$101,000), DSM (rebates & outside services) (\$87,000), transportation clearing & building Clearing, (\$57,200) and uncollectible accounts (\$47,000). Offset by higher expense due to the credit for A&G (“Admin and General Expenses”) charged to Capital projects was less than planned, \$244,400.
- **Other Income** down \$1,636,000
 - a. Budget assumed \$750,000 of ARPA. Also, assumed customer contributions for Shelburne Road roundabout relocation, \$585,900, UVM LCOM, \$116,200 & Champlain Pkwy, \$212,600.

FINANCIAL HIGHLIGHTS – BUDGET VS ACTUAL as of November FY22

Capital Spending – November YTD				
(\$000's)				
Plant Type	Full Yr. Budget	Budget	Actual	% Spent
Production	\$1,017	\$544	\$179	18%
Other	192	96	0	0%
Transmission	1,150	0	0	0%
Distribution	3,577	1,904	1,337	37%
General	2,034	749	281	14%
Total	\$7,970	\$3,293	\$1,796	23%

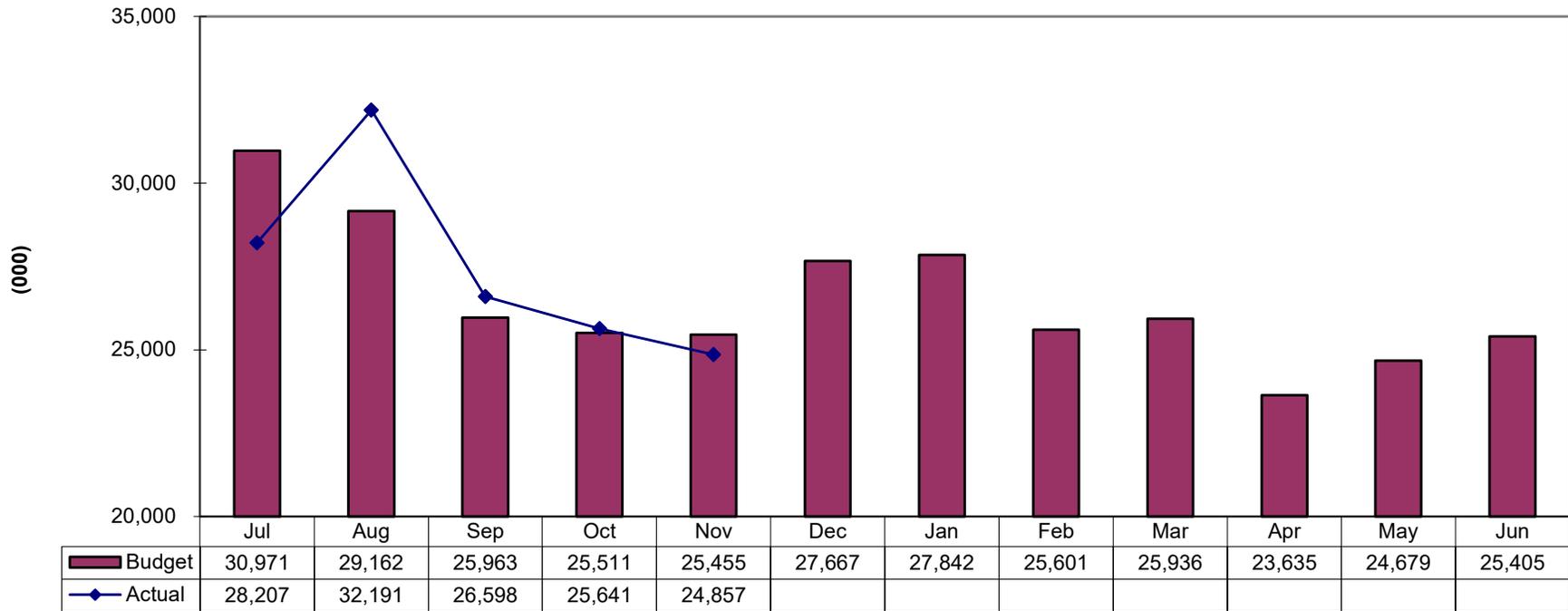
- (1) **Production** – Timing of projects at McNeil, \$70,000 and Gas Turbine, \$97,000. The unit #3 bearing replacement budgeted for Winooski One will not happen this fiscal year, \$125,000.
- (2) **Other** – Timing; budget includes Level 2 & 3 chargers, Packetized Energy, and research & development.
- (3) **Distribution** – Timing of various projects.
- (4) **General** – IT Forward project was budgeted throughout the year; YTD expenses of \$217,400 compared to a budget of \$512,300. Pole mount routers YTD expenses of \$5,300 vs budget of \$67,500. Electric Bucket Truck replacement was budgeted throughout the year, delivery has been delayed until July 2022.

As of November 30, 2021	
Cash and Investments	
Operating Funds	\$10,260,400
Operating Fund – CDs	\$1,160,900
Total Operating Fund	\$11,421,300

Credit Rating Factors				
	"A"	"Baa"	Current	3 Year Average
Debt Service Coverage Ratio	1.25	1.25	4.53	3.76
Adjusted Debt Service Coverage Ratio	1.50	1.10	1.18	0.93
Cash Coverage - Days Cash on Hand	90	30	138	127

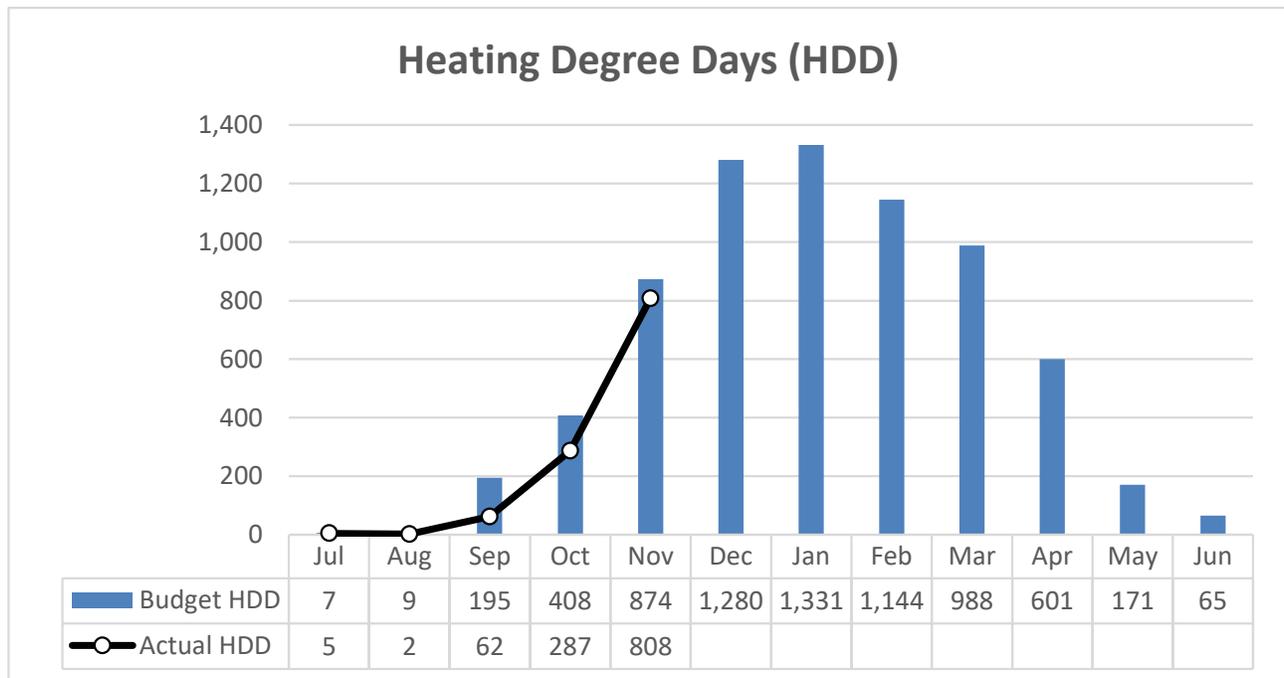
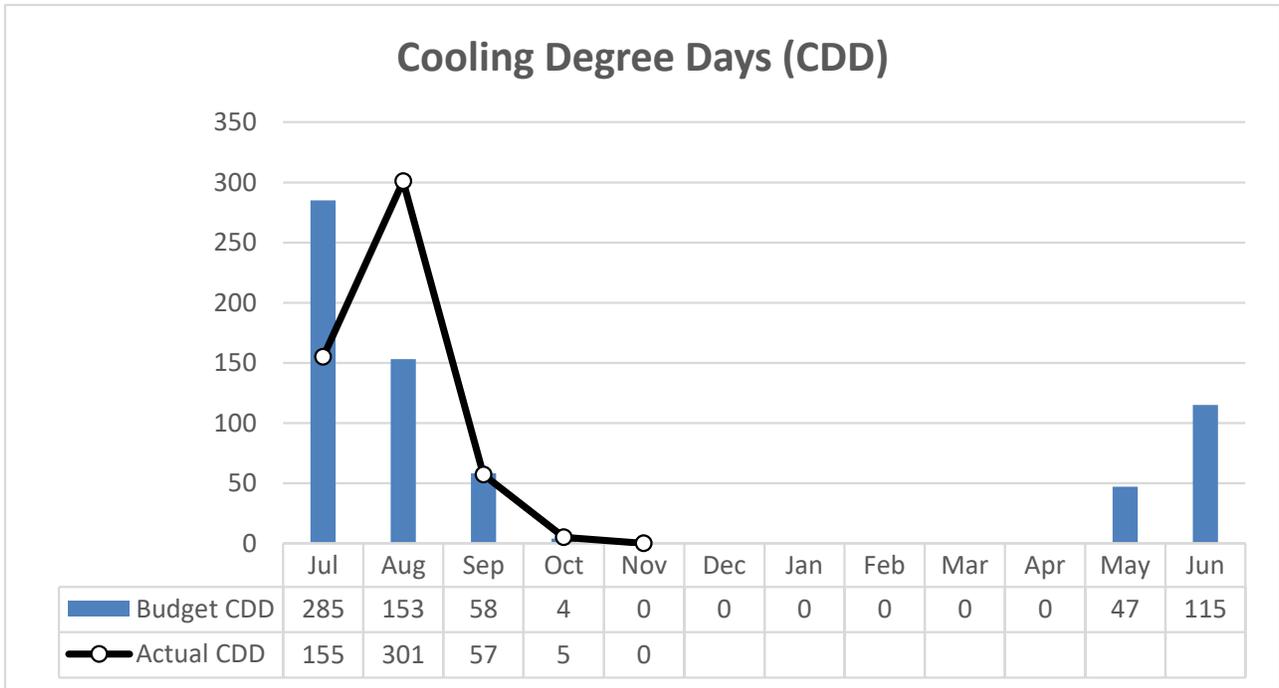
**Burlington Electric Department
Fiscal Year Ending June 30, 2022**

**Total Sales to Customers - KWH
Monthly**



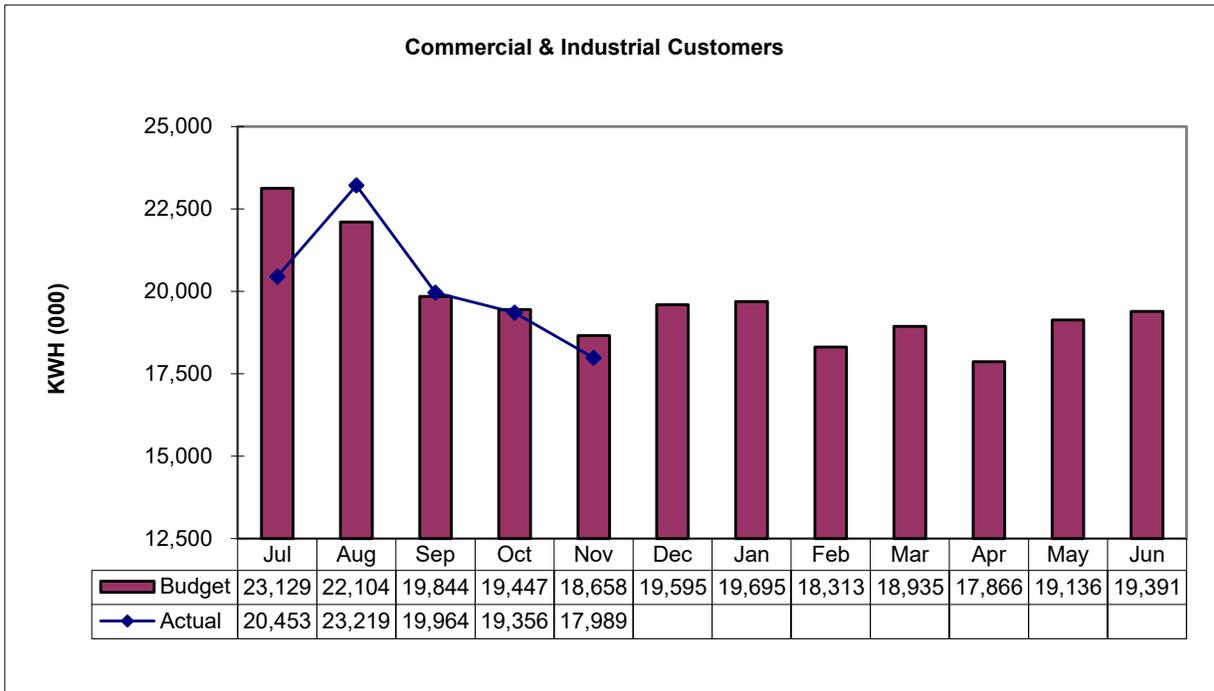
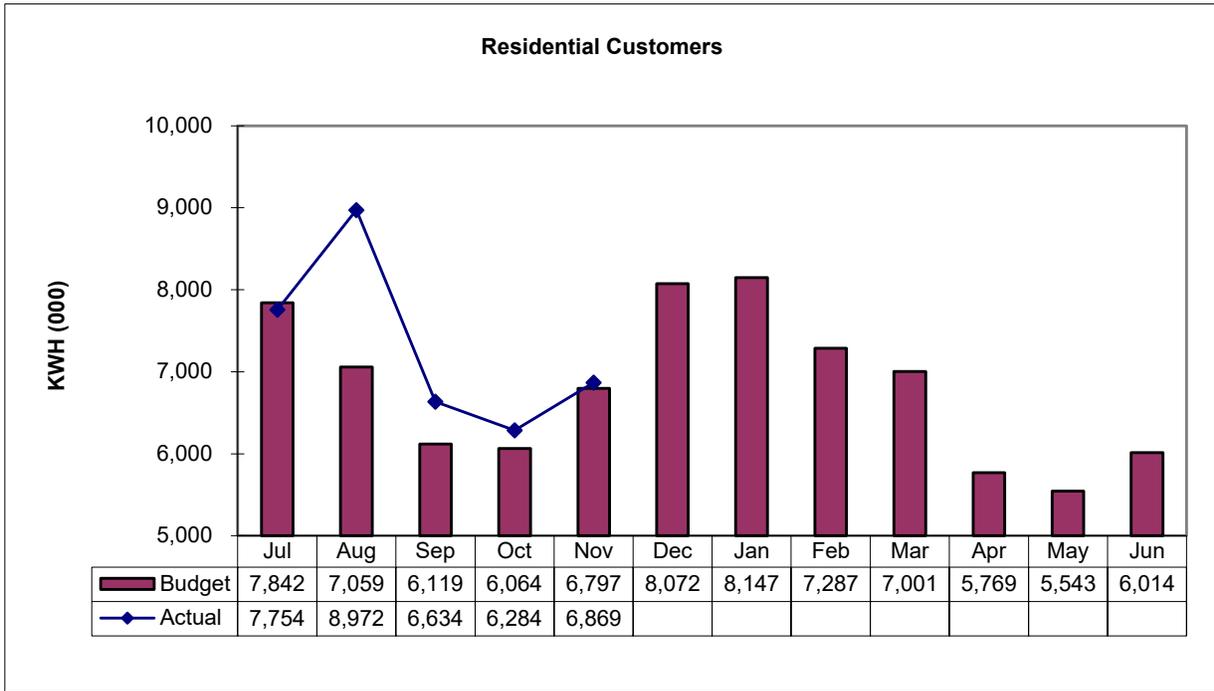
KWH Sales to Customers (YTD)												
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Budget	30,971	60,134	86,097	111,608	137,063	164,730	192,571	218,172	244,108	267,743	292,422	317,827
Actual	28,207	60,398	86,996	112,636	137,494							

FY 2022



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
November - FY 2022**

	(\$000)							
	Current Month			Year-to-Date				
	Budget	Actual	Variance	Budget	Actual	Variance		
Expenses:								
Fuel (p. 7)	\$510	\$185	\$325	(1)	\$3,200	\$3,101	\$98	(1)
Purchased Power (p.11)	1,425	1,541	(117)	(2)	6,473	6,271	202	(2)
Transmission Fees - ISO	480	509	(29)	(3)	2,834	3,172	(338)	(3)
Transmission Fees - Velco	232	134	98	(4)	365	(88)	453	(4)
Transmission Fees - Other	61	71	(10)		253	250	3	
Total Expenses	2,708	2,440	268		13,125	12,707	418	
Revenues:								
Renewable Energy Certificates - McNeil	500	806	305		1,953	2,410	457	
Renewable Energy Certificates - Wind	856	715	(141)		1,677	1,538	(139)	
Renewable Energy Certificates - Hydro	298	189	(109)		447	324	(123)	
Renewable Energy Certificates - Other	63	74	11		98	74	(24)	
Total Revenues	1,717	1,784	66		4,175	4,346	171	(5)
Net Power Supply Costs	\$991	\$656	\$334		\$8,950	\$8,361	\$589	
Load (MWh)	25,867	25,526	(341)		139,264	141,248	1,984	
\$/MWh	\$38.30	\$25.71	(\$12.59)		\$64.27	\$59.19	(\$5.07)	

Current Month:

- (1) See detail on page 7.
- (2) See detail on page 11.
- (3) ISO-NE Transmission over Budget due to higher ISO-NE Transmission rates.
- (4) VELCO Transmission under Budget due to lower 91 VTA Common charges.

YTD:

- (1) See detail on page 7.
- (2) See detail on page 11.
- (3) ISO-NE Transmission over Budget due to higher ISO-NE Transmission rates.
- (4) VELCO Transmission under Budget due to lower 91 VTA Common charges.
- (5) RECs expected to come in 5% under Budget due to under Budget Wind and Hydro Production

**Net Power Supply Costs
November - FY 2022**

	(\$000)							
	Current Month			Year-to-Date				
	Budget	Actual	Variance	Budget	Actual	Variance		
<u>FUEL:</u>								
McNeil:								
Fuel Consumed	345	131	213	(1)	2,188	2,155	34	(1)
Swanton Yard	30	15	15	(1)	192	259	(67)	(1)
Train Deliveries	62	23	38	(1)	390	372	18	(1)
Labor & Other Expenses	63	15	48	(2)	377	248	129	(2)
Total McNeil Fuel	500	185	315		3,147	3,034	113	
Gas Turbine	11	(0)	11	(3)	53	68	(15)	(3)
Total Fuel	510	185	325		3,200	3,101	98	

Current Month:

(1) McNeil produced 3,057 MWh (61% under Budget); Woodchip costs (per ton) were 1% under 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 0 MWh.

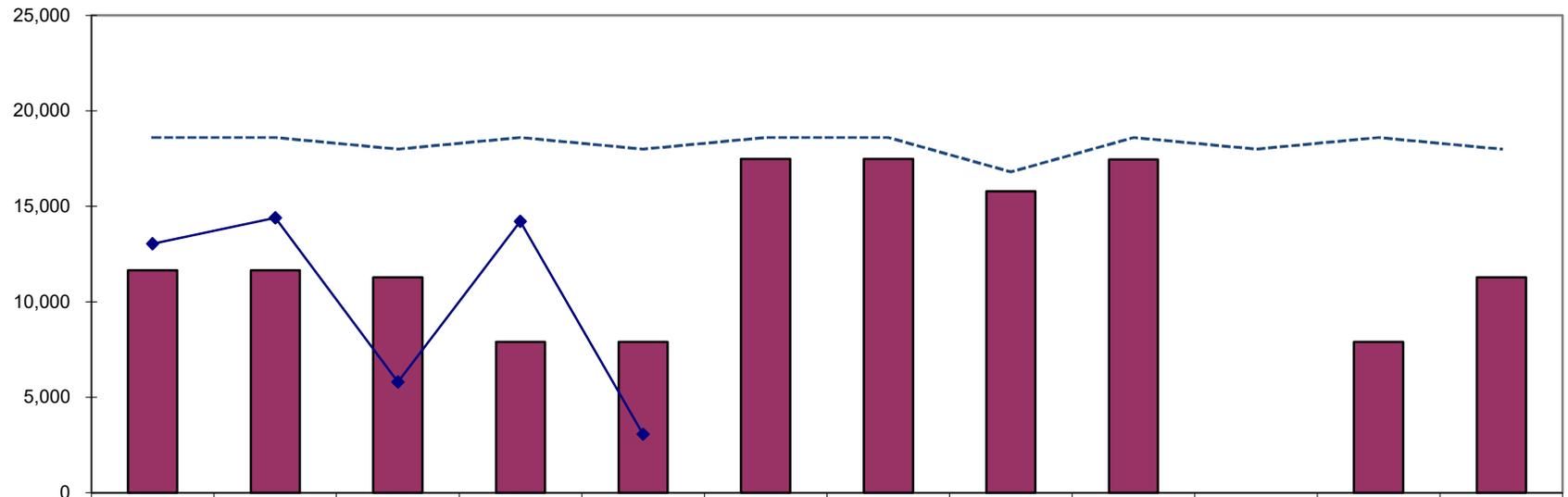
YTD:

(1) Woodchip costs (per ton) were 2% under Budget. (p. 9)

(2) See Current Month.

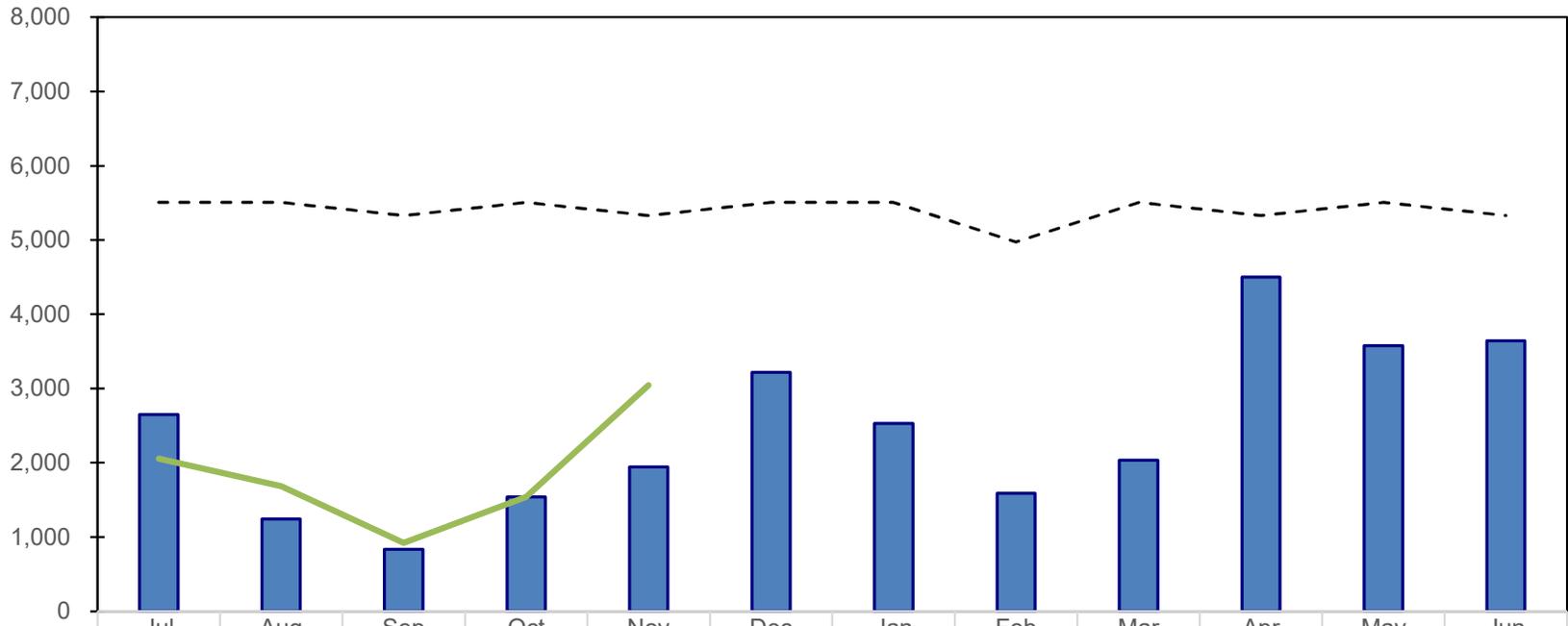
(3) GT produced 229 MWh (30% over Budget).

**Burlington Electric Department
McNeil Plant - MWH Production (50%)
FY 2022**

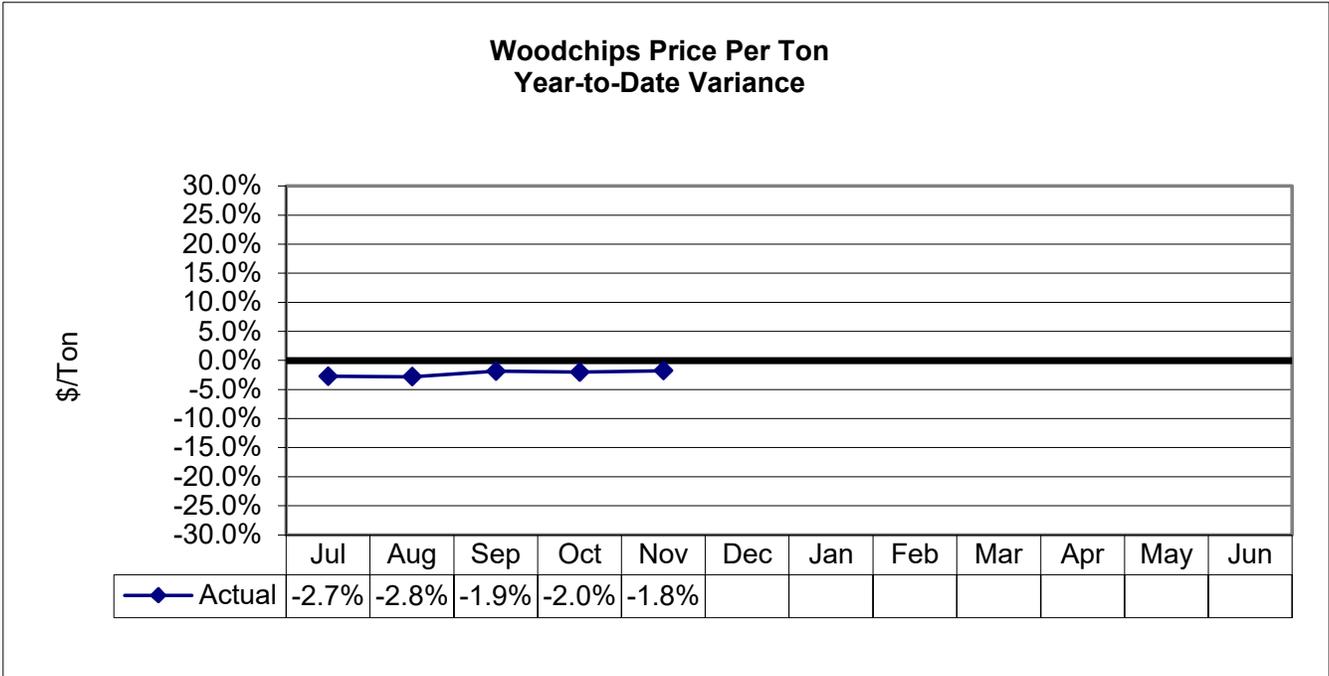
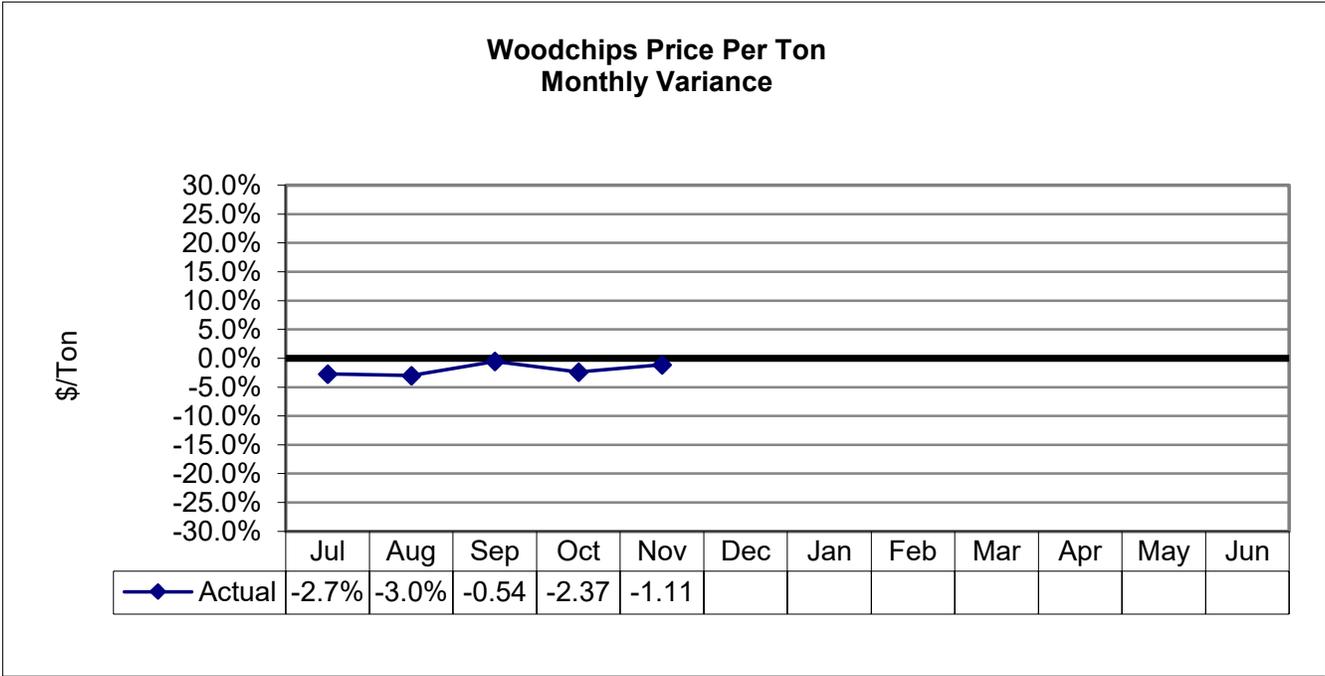


Budget	11,656	11,656	11,280	7,896	7,896	17,484	17,484	15,792	17,461	0	7,896	11,280
Actual	13,047	14,396	5,794	14,209	3,057							
Maximum	18,600	18,600	18,000	18,600	18,000	18,600	18,600	16,800	18,600	18,000	18,600	18,000

**Burlington Electric Department
Winooski One - MWH Production
FY 2022**



Burlington Electric Department Fiscal Year 2022



* Wood only. Does not include other costs.

**Net Power Supply Costs
November - FY 2022**

	(\$000)					
	Current Month			Year-to-Date		
	Budget	Actual	Variance	Budget	Actual	Variance
<u>PURCHASED POWER:</u>						
Non-Energy (capacity)	102	120	(19)	587	700	(113)
Energy:						
Georgia Mountain Wind	297	259	38 (1)	1,328	929	399 (1)
Hancock Wind	354	246	108 (2)	1,220	774	446 (2)
VT Wind	278	221	57 (3)	951	773	178 (3)
Hydro Quebec	237	246	(10) (4)	1,134	1,144	(10) (4)
Great River Hydro	164	163	0	834	833	1
In City Solar Generators	46	47	(2)	397	377	20
NYPA	6	9	(3)	31	43	(13)
ISO Exchange	(129)	185	(314) (5)	(295)	435	(730) (5)
Velco Exchange	0	(1)	1	0	(3)	3
Total Energy	<u>1,252</u>	<u>1,376</u>	<u>(124)</u>	<u>5,600</u>	<u>5,306</u>	<u>295</u>
Ancillary Charges	5	3	2	20	(16)	37
Miscellaneous	65	41	24	265	281	(16)
Total Purchased Power Expense	<u><u>1,425</u></u>	<u><u>1,541</u></u>	<u><u>(117)</u></u>	<u><u>6,473</u></u>	<u><u>6,271</u></u>	<u><u>202</u></u>

Current Month:

- (1) Production 13% under Budget. Lower CY21 production will result in lower REC revenues later in FY22. (Fourth turbine back on line 11/18)
- (2) Production 17% under Budget. Rate 16% under Budget due to Financial Adjustment. Lower CY21 production will result in lower REC revenues later in FY22
- (3) Production 20% under Budget. Lower CY21 production will result in lower REC revenues in FY22.
- (4) Rate 4% over Budget.
- (5) McNeil (61%) and Wind (17%) Production under Budget.

YTD:

- (1) Production 30% under Budget. Lower CY21 production will result in lower REC revenues in FY22. (Fourth turbine back on line 11/18)
- (2) Production 26% under Budget. Rate 14% under Budget due to Financial Adjustment. Lower CY21 production will result in lower REC revenues later in FY22.
- (3) Production 19% under Budget. Lower CY21 production will result in lower REC revenues in FY22.
- (4) Rate 1% over Budget.
- (5) Wind (25%) Production under Budget.

Burlington Electric Department
Operating and Maintenance Expense by Spending Category
FY 2022 - November

Description	Budget	Actual	Variance	% Variance	*
Labor-Regular	3,377,410	3,280,367	97,043	3%	
Labor-Overtime	208,627	229,477	(20,850)	10%	
Labor-Temporary	4,500	0	4,500	100%	a
Labor-Overhead	1,289,530	1,281,680	7,850	1%	b
Outside Services	1,090,346	718,484	371,862	34%	c
DSM (rebates & outside services)	860,840	773,362	87,478	10%	d
Materials & Supplies	368,200	267,441	100,759	27%	e
Insurance	297,882	244,692	53,190	18%	
A & G Clearing	(399,505)	(155,110)	(244,395)	61%	f
Other - RPS Compliance	270,358	459,044	(188,686)	70%	
Other	1,113,208	749,967	363,241	33%	g
Operating and Maintenance Expense	8,481,397	7,849,404	631,993	7%	

(a) Policy & Planning assumed intern positions in July.

(b) See page 13.

(c) Timing of various items; Triennial Consulting Engineer's Report (\$52,500), other items at GT & W1 (\$100,000), assumed DPS billback expense due to rate case (\$167,000) and REC Broker commission fees (\$43,400).

(d) 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.

(e) Timing; Distribution (\$33,300), GT & W1 (\$9,400) & Safety (\$15,000).

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

(g) Timing: various areas are less than budget including; Transportation Clearing (\$22,300), Building Clearing, (\$35,000), Dues & Fees (\$20,8000), Utilities (\$19,800) and Uncollectible Accounts (\$47,100).

**Burlington Electric Department
Budget vs Actual Spending Analysis
FY 2022 - November YTD**

Labor - Overhead	(000's)			%	
	Budget	Actual	Variance		
Pension	\$633	\$603	\$30	5%	(a)
Medical Insurance	626	609	17	3%	(b)
Social Security Taxes	393	353	40	10%	(a)
Workers Compensation Ins.	143	147	(3)	-2%	(b)
Dental Insurance	39	35	4	9%	(b)
Life Insurance	9	8	1	11%	(b)
	\$1,842	\$1,755	\$88	5%	

Rates Table:	Budget
<i>Pension</i>	13.11%
<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 2022 - November (\$000)

	Ref	Current Month			Year - To - Date		
		Budget	Actual	Variance	Budget	Actual	Variance
Operating Revenues							
Sales to Customers	p.3	3,691	3,568	(123)	20,392	20,377	(15)
Other Revenues		331	196	(135) (a)	1,571	1,223	(348) (a)
Total Operating Revenues		4,022	3,764	(258)	21,963	21,600	(363)
Net Power Supply							
	p.6	991	656	335	8,950	8,361	589
Operating Expenses							
Operating and Maintenance	p.12	1,671	1,460	210	8,481	7,849	632
Depreciation & Amortization		501	512	(11)	2,503	2,560	(57)
Gain/Loss on Disp of Plant		0	0	0	143	130	13
Revenue Taxes		49	47	2	239	238	1
Property Taxes Winooski One		42	41	1	211	206	4
Payment In Lieu of Taxes		239	192	47 (b)	1,196	948	248 (b)
Total Operating Expenses		2,501	2,252	249	12,773	11,931	842
Other Income and Deductions							
Interest/Investment Income		5	5	1	23	25	3
Dividends		360	360	(0)	1,801	1,807	6
Customer Contributions/Grants		305	33	(272) (c)	1,666	48	(1,618) (c)
Other		(0)	(2)	(2)	22	(5)	(27)
Total Other Income & Deductions		670	397	(273)	3,511	1,875	(1,636)
Interest Expense							
		201	189	12	989	974	15
Net Income							
		999	1,063	64	2,762	2,209	(553)

Current Month:

(a) Energy Efficiency Program cost reimbursement was less than planned, \$123,900.

(b) Actual includes city reappraisal.

(c) Budget assumed customer contributions for Shelburne Road roundabout relocation, \$154,000, UVM LCOM project, \$29,000 and Champlain Pkwy, \$121,500. Actual includes other billable.

Year - To - Date:

(a) Energy Efficiency Program cost reimbursement was less than planned, \$299,300.

(b) See current month.

(c) Budget assumed \$750,000 of ARPA funds in July and customer contributions for Shelburne Road roundabout relocation, \$585,900, UVM LCOM project, \$116,200, and Champlain Pkwy, \$212,600. Actual includes other billable.

**Burlington Electric Department
Capital Projects - FY22**

	\$000			
	Full Year Budget	Budget	November Actual	Variance
McNeil (BED 50% Share)				
ESP Mechanical Field Rebuild	225		46	(46)
Routine Station Improvements	107	43	1	42
Backup Boiler Feed Pump/Insurance	103	103	126	(23)
Turbine Control System Upgrade/Insurance	37			0
Augers Replaced	30	30		30
Elevator Geared Equipment & Controls	25			0
Turbine Extraction Valve Actuators	20	20		20
Belt Fire Suppression/Insurance	17			0
Cooling Tower Fill Drift Eliminators	15			0
Disc Screen	15			0
Chemical Feed Pump Replacement/Upgrade	15			0
ESP Wire Replacement	13			0
Safety Valve Replacements	12			0
GSU Transformer	11	11		11
Analyzer Upgrades for Chemical Treatment	9	9		9
Char Ash Conveyor	10	10		10
Station Tools & Tool Boxes	7	4		4
DC Lube Oil Pump Contractor Upgrade/Insurance			2	(2)
Other	24	16	1	15 (a)
Total McNeil Plant	697	246	176	70
 <i>(a) Budget includes energy efficiency improvements, farmhouse repair, probe ladder, perimeter fence upgrade, radio upgrades, rigging equipment and office equipment.</i>				
Hydro Production	221	201	3	198 (a)
 <i>(a) Budget assumed Unit #3 bearing replacement, \$125,000. Project will not happen in this FY.</i>				
Gas Turbine	98	97	0	97
Total Production Plant	1,017	544	179	365
 Other				
Direct Current Fast Charger (Level 3)	85	43		43
Packetized Energy	52	26		26
Public Level 2 EV Charge	33	17		17
Policy & Planning Research & Dev	21	10		10
Total Other	192	96	0	96
 Transmission Plant				
VT Transco Investment	1,150			0
Total Transmission Plant	1,150	0	0	0

**Burlington Electric Department
Capital Projects - FY22**

	\$000			
	Full Year Budget	Budget	November Actual	Variance
Distribution Plant-General				
Aerial				
Scarff Avenue Rebuild	701	420	621	(200)
Appletree Point Rebuild	258	220	4	215
1L4 P3149 to P3169 Reconductor	162		5	(5)
1L4 P3132 to P3149 Reconductor	140	77	25	52
Replace Condemned Poles	118		(0)	0
Replace Recloser 252R	48	48		48
227S Automation	47	47		47
Ferguson Ave, Wells St			39	(39) (a)
Rebuild 3L4 Long Spans			4	(4) (a)
Rebuild 1L4 Long Spans PH2			7	(7) (a)
3L1 Circ P396 to P404			6	(6) (b)
Total Aerial	1,474	812	710	102

(a) FY21 project that was delayed.

(b) New project added.

Underground

Replace Switch (756,757,758,730-Battery/Pearl St)	204		3	(3)
Replace Switch (303,307,308,309-Main/S Prospect)	137		1	(1)
Replace UG Switch (821,401,727,349,233)			53	(53) (a)
Replace UG Switch (731,736,760,761)			16	(16) (a)
Shelburne St-Rep Sec p323-328			19	(19) (b)
Starr Farm Beach-Conv 2 ph			13	(13) (b)
Total Underground	341	0	105	(105)

(a) Additional work from FY21.

(b) New project added.

Customer Driven/City Projects

Champlain Parkway C6	644	225		225 (a)
Champlain Parkway C6 (CAFC)	(608)	(213)		(213) (a)
UVM LCOM Project (Larner College of Medicine)	391	391	6	384
UVM LCOM Project (CAFC)	(116)	(116)		(116)
UVM Athletic Facility	101	101	17	84
Shelburne St Roundabout Relocation	630	599	3	596
Shelburne St Roundabout Relocation (CAFC)	(617)	(586)		(586)
Total Underground	425	401	26	374

(a) Project is delayed and not anticipated to impact FY22.

**Burlington Electric Department
Capital Projects - FY22**

	\$000			
	Full Year Budget	Budget	November Actual	Variance
Other				
SCADA Networking Upgrade/Firewall Replacement	296	222	1	221
Distribution Transformers	194	116	238	(122)
SCADA Network Switches Replacement	98			0
Field Device Network Upgrades	67	63	5	58
Communication Equipment Emergency Repair	27	3	2	0
SCADA Servers Virtualization	0		6	(6)
Other			12	(12)
Total Other	682	404	264	140
Total Distribution Plant-General	2,922	1,617	1,105	511
Distribution Plant - Blanket				
Lighting	159	36	94	(59)
Lighting (Rebate)	(6)	(1)		(1)
Underground	194	108	109	(2)
Underground (CAFC)			(23)	23
Aerial	106	44	43	1
Aerial (CAFC)			(17)	17
Meters	125	75	5	71
Gas Detectors	4			0
Tools & Equipment - Distribution/Technicians	30	13	15	(3)
Substation Maintenance	16	2		2
Replace Corroded Vista CT's/PT's	20	4	5	(1)
Substation-Temperature Alarms	8	8		8
Total Distribution Plant - Blanket	655	288	232	56
Total Distribution Plant	3,577	1,904	1,337	568

**Burlington Electric Department
Capital Projects - FY22**

	\$000			
	Full Year Budget	Budget	November Actual	Variance
General Plant				
Computer Equipment/Software	1,806	670	248	422 (a)
Vehicle Replacement	165	17		17 (b)
Buildings & Grounds	55	55	33	22 (c)
Other	8	8	0	8 (d)
Total General Plant	2,034	749	281	468

(a) Budget includes IT Forward, \$512,300, Lake Street Network switch replacement, \$37,000, OpenWay upgrade, \$24,600 and Pole Mount Routers, \$67,500. Actual includes IT Forward, \$217,400, Shared Data Center, \$9,400 and Pole Mount Routers, \$5,300.

(b) Budget assumed new electric bucket truck with a large portion covered by a grant. Periodic payments were assumed in July, January, March and May. Delivery has been delayed until July 2022.

(c) Budget includes fence for solar array, \$19,000, security camera replacements, \$8,000, sign replacements, \$5,000 and ID printer, \$4,000. Actual includes dispatch AC relocation, ID printer replacement and chair for system operations.

(d) Budget includes training yard materials & AED purchase for Pine Street.

Sub-Total Plant	\$7,970	\$3,293	\$1,796	\$1,497
Add: CAFC* reclass to "Other Income"	1,346	916	40	876
Total Plant	\$9,316	\$4,209	\$1,837	\$2,372

* Customer Advances (Contributions) for Construction.

Operating Cash - FY 2022 Monthly Ending Balance

