

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: 361 667 284#

AGENDA
Regular Meeting of the Board of Electric Commissioners
Wednesday, June 8, 2022– 5:30 p.m.

- | | |
|---|----------------|
| 1. Agenda | 5:30 (5 min.) |
| 2. Minutes of the May 18, 2022 Meeting | 5:35 (5 min.) |
| 3. Public Forum | 5:40 (5 min.) |
| 4. Commissioners' Corner (Discussion) | 5:45 (5 min.) |
| 5. GM Update (Oral Update)
Financials: April FY22 | 5:50 (15min.) |
| 6. Street Lighting Primer (Discussion): A. Elliston | 6:05 (15 min.) |
| 7. 2022-2023 Draft Strategic Direction (Discussion): D. Springer | 6:20 (10 min.) |
| 8. Addition of Emily Byrne to the Signatory List for BED Accounts
(Discussion & Vote): Darren Springer | 6:30 (5 min.) |
| 9. Moran Frame Updae (Discussion) (Expected Executive Session):
D. Springer | 6:35 (15 min.) |
| 10. Commissioners' Check-In | 6:50 (5 min.) |

Attest:



Laurie Lemieux, Board Clerk

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

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

TABLE OF CONTENTS (for 06/08/22 meeting)

***** FYI *****

- Minutes of the May 18, 2021 Meeting
- May Monthly Report
- Dashboard
- FY22 April Financials
- 2022-2023 Draft Strategic Direction

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: June 3, 2022
Subject: **May 2022 Highlights of Department Activities**

General Manager

- **District Energy Update** – BED is bringing several district energy items to City Council for approval on 6/6, including a resolution supporting creation of a 501(c)(3) run by Evergreen Energy to manage further district energy development work, and ultimately to finance, permit, and construct the system if the decision is GO as of end of 2022. We also are bringing formal acceptance of the \$5.16 million in federal funds secured by Senator Leahy to the Council as well. Work proceeds on a letter agreement with all the partners to guide additional project development work to be completed in 2022, and to keep us on schedule for construction in 2023 and operation in 2024 if the financial terms are acceptable. Updated financial terms will be provided by the end of 2022, including for interest rates on the debt financing, updated construction pricing, and updated fuel costs for steam.
- **Charter Change Policy Development** – BED and Department of Permitting and Inspections are working to develop policy recommendations, per a City Council Resolution, to guide further building decarbonization work in new construction, major renovations, city buildings, and large existing commercial buildings. We are engaged with Building Electrification Institute (BEI) to assist, and our first report back will be July 18.
- **Rate Change** – BED is also seeking Board of Finance and Council approval for the 3.95% rate change proposed for FY23, on 6/6, with intent to file with the PUC mid-June, so that surcharges would start appearing for customer bills in August.
- **Net Zero Energy Festival 2022** – BED is working to create our first-ever Net Zero Energy festival at 585 Pine Street, on Saturday September 17th. Our team is planning now, and hoping to include live music, kids art and activities, technology demonstrations (such as EV test drives and E-bike test rides), EV auto dealer and heat pump installer booths/tables, bike tune-ups, a visit from Champ, food/drink carts that are zero fossil fuel, and many other activities! More to come, but we hope Commissioners will save the date of Saturday September 17th, with a rain date of Saturday September 24.
- **Position Updates** – At the 6/20 Board of Finance and City Council meetings, BED plans to bring updates to two currently vacant positions to add Net Zero capacity in Sustainability and Energy Services, while also creating a new business project management position in IT.

Center for Innovation - Emily Stebbins-Wheelock

- Overseeing 2022 rate case development/implementation.
- Sponsoring Employee Engagement Committee review of employee onboarding process.
- Mentoring DeltaClimeVT 2022 cohort.
- Continued sponsorship of IT Forward implementations.

Finance & Accounting

- Presented FY 2023 budget to Electric Commission and the Board of Finance; City Council approval pending in June.
- Continued work with Policy & Planning on final documentation of REC and Tier 3 accounting changes for external audit support.
- Continued work on assessing new GASB Standard 87-Leases for implementation in FY22.
- Continued work on rate case for anticipated submission to the Public Utility Commission on June 16, 2022 with an effective date of August 1, 2022, pending City Council approval. The requested rate increase, as presented in the budget, will be 3.95%.
- Heidi Groelinger, the new Accounting Administrator (accounts payable position), started on May 16th. She is a welcome and wonderful addition to the team.
- Applied \$10,910.29 of ARPA funds to commercial customer accounts in arrears on May 10. After applying funds to outstanding arrears, there is nearly \$208K in ARPA funding available for use to support the Energy Assistance Pilot Program in FY23.
- Receivables due to COVID19 as of May 31, 2022 reflect the application of ARPA funds to residential and commercial accounts. BED’s total non-current receivables decreased (\$380,661) or (32.97%) compared to the end of April 2022. Arrearages >60 days were \$435,905.



Information Services

- Department of Homeland Security/Cybersecurity & Information Security Agency Voluntary Assessment pre-work has been completed and is scheduled for early June.
- Progress made on IT Forward projects.
- Ongoing work on SCADA firewall replacement and VELCO ICCP upgrade projects.
- Attended electric utility annual cybersecurity meeting hosted by Department of Public Service.

Policy & Planning

- Responded to PUC data request re potential low-income program.

- Finished FY 2023 budget; significant work on 2022 rate filing.
- Finished REC trading and acquired additional VT1 RECs.
- Changed McNeil wood pricing structure to include explicit fuel component.
- Provided energy assistance program notice to customers.
- Selected UNH Sustainability Fellowship Intern; finished work plan.
- Updated Public EV Charging Rate for 7.5% rate increase.
- Attended PSD workshop on affordable renewable energy program.
- Evaluated GT operational history and economics.
- Eruv district proposal legal sign-off.
- Packetized Energy device transition contract review.
- IRP/forecasting work with Itron ongoing.
- State of VT Multifamily EVSE grant contract for City Council.
- Filed comments in PUC net metering rulemaking.
- Filed comments and responses to multiple EEU dockets.
- DeltaClimaVT 2022 mentoring.
- ARC pilot project permitting options research.
- Monitoring 2022 legislative committee activity.
- Work on net metering customer issue with PSD.
- Defeat the Peak kickoff meetings.
- Continuing review of Rate Design Initiative grant contract; started discussions with Dynamic Organics for the commercial grid-interactive load pilot.

Sustainability & Workforce Development

- In conjunction with Communications, hosted NZE Podcast episode with GM Springer and VPRIG's Sebbi Wu on Burlington's building electrification charter initiatives.
- Continued work on the VLITE-funded project to expand EV access for low-income residents through car sharing and enhanced charging infrastructure.
- Met with a Duke Energy team interested in launching an e-bike program; discussed BED's e-bike rebate and lessons on program implementation.
- Shared e-bike program lessons learned with ERG, an environmental consulting firm researching micro-mobility solutions.
- Advanced efforts to launch BVT 2030 District's Transportation Energy Plan with Resource Planning Group, including finalization of transportation survey for members.
- In conjunction with City Human Resources, reviewed and finalized CATMA MOU and CATMA efforts to reduce commuting vehicle miles traveled by city staff.
- Scheduled "all staff" Lunch and Learn on BED's renewable energy portfolio from the Policy & Planning team.
- Continued work on REV Conference planning.
- With GMP, co-hosted two EV ride and drive events, at UVM and Hula, respectively, with CATMA, Greenride, CarShareVT, and VT Clean Cities Coalition.
- Attended Burlington High School and Burlington Technical Center Advisory meeting.
- Hosted a VT Council on World Affairs visiting professionals group; presented Burlington's sustainability efforts and NZE by 2030 goal.

- Delivered Pecha Kucha presentation at VT-AIA construction and architectural conference (ACX Vermont) at Champlain College on strategic electrification and NZE goal.
- Participated in first ACEEE Building Electrification Workgroup meeting with commercial, municipal, and non-profit entities engaged with strategic electrification.
- Moderated monthly USDN “Gas Transition and Building Electrification” working group call focused on community outreach campaigns, including guests from Colorado’s Love Electric team and the Building Decarbonization Institute’s kitchen electrification campaign.

Center for Safety and Risk Management – Paul Alexander

Safety

- Conducted Generation Safety Committee meeting.
- Conducted Level 3 System Operator Switching & Tagging Exam.
- Participated in CUSP Recertification Committee meeting.
- Conducted annual fire extinguisher inspections for Pine Street & Substations.
- Conducted Safety briefing with GM.
- Performed various COVID-19 mitigation prevention measures.

Environmental

- Completed the 2022 overhaul.
- Met with the VTDEC for biodiesel amendment questions for the GT.
- Tuned CEMs for plant startups.
- Dosed cooling tower, feedwater, and boiler systems with chemicals for fresh fill start-ups.

Risk Management

- New Claims Investigations (0 total).
- 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.
- Complete UFLS 6-month update.
- Update WC Binder, OSHA log
- Attend ERUV meeting on next steps.
- Coordinate BED response to ISO-NE request re: CIP-012.
- Review FRAME project MOA/agreement.
- Create release for GBSBC and NZE Festival.

Purchasing/General Services

- Attended monthly meeting with the Electric Bucket Truck Vendor Lion
- Attending monthly meeting with the state on our grant for Electric Bucket Truck
- Worked on emergency purchases for McNeil.

Center for Operations & Reliability – Munir Kasti

Engineering & Operations

- Relocated our electrical system at the Shelburne Street Roundabout.
- The Appletree Point conduit system installation project is complete.
- Completed the College Street Railroad platform lighting service.
- Issued design and work order for the UVM Chiller additional service and installed the third transformer.
- Responded to 20 scheduled services.
- Completed 25 streetlights repairs.
- Replaced Golden Place transformer.
- Assisted the electrician repairing a bad 200-amp elbow at South 40 Solar.
- Replaced damaged switch 343S cabinet at Maple and South Willard Streets.
- Continued training at the Gas Turbine.
- Assisted with building electrical repairs at 585 Pine Street.
- Removed graffiti from BED equipment at various locations throughout the city.
- Performed breaker maintenance at substations.
- Issued design and work order for:
 - Service upgrade at 251-253 South Union Street
 - Service upgrade at 81 Pearl Street
 - Relocation at 410 Appletree Point Road
- Analyzed breaker operations on 1L4 (5/24/2022) and 3L1 (5/26/2022) circuits and issued respective trip out reports.
- Issued and awarded RFP for civil work to make repairs to utility hole 356 at Battery and Pearl Streets.
- Issued RFPs for upcoming civil work at the following locations:
 - Underground rebuild at Edgemoor Drive
 - Underground rebuild at Lyman Avenue
 - Construction of new duct bank along College Street between South Winooski Avenue and City Hall Park
- Analyzed meter data to identify low voltage events that occurred during the voltage reduction test and identified several projects to replace overloaded transformers and/or secondaries.
- Continued analysis of projected increased system peak loading due to Net Zero Energy.
- Posted the vacant Line worker position.
- Posted the vacant Metering position.

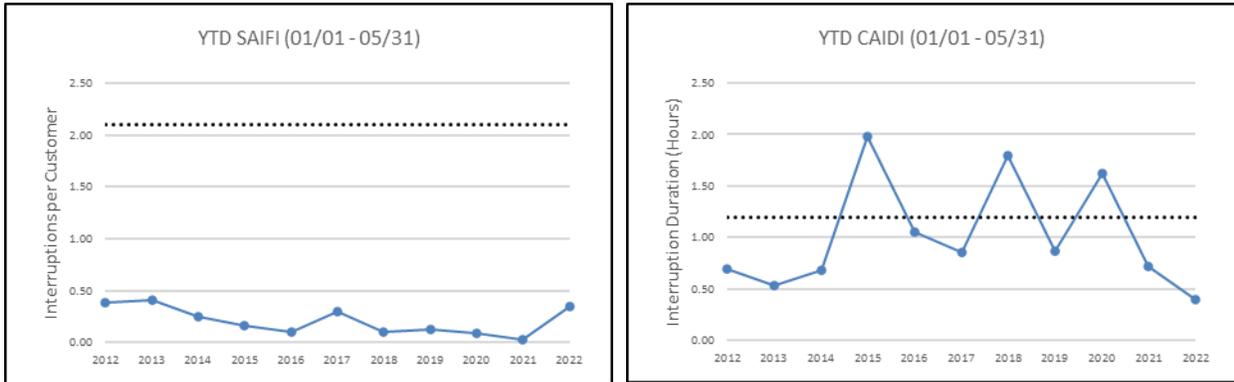
Grid Services

- Performed the ISO New England voltage reduction test.
- Continued training the (2) Power System Coordinator I employees.
- Re-posted the vacant Director of Grid Services position.

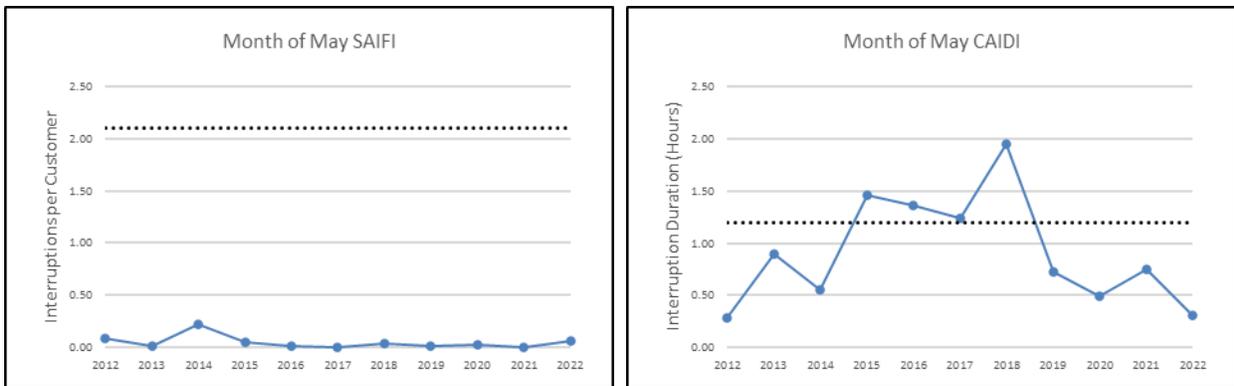
SAIFI & CAIDI Outage Metrics:

BED’s distribution system experienced 18 outages in May 2022 (2 unscheduled and 16 scheduled). BED’s SAIFI for the Month of May was 0.06 interruptions per customer and CAIDI was 0.31 hours per interruption. BED’s YTD SAIFI is 0.35 interruptions per customer and YTD CAIDI is 0.4 hours per interruption.

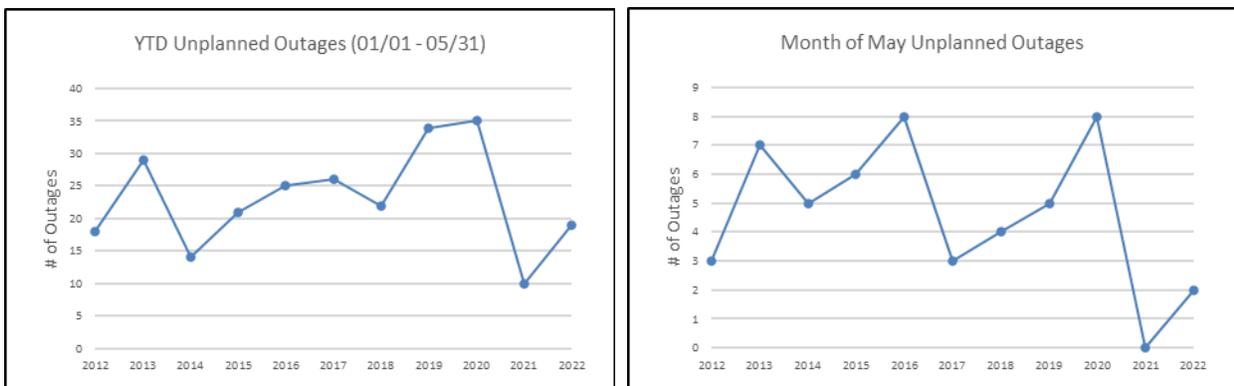
The following figure shows BED’s historical YTD SAIFI and CAIDI:



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



The following figure shows BED’s historical Unplanned Outages:



GENERATION

McNeil Generating Station

Month Generation:	3,787 MWh
YTD Generation:	99,119 MWh
Month Capacity Factor:	10.18 %
Month Availability:	10.7 %
Hours of Operation:	87 hrs.

There was a total of 3,5877 MWH hours of reduction due to overhaul and grate issues. Overhaul concluded and vast amounts of work conducted. We will be coming into our turbine outage starting June 1st.

Conducting interviews for the vacant yard worker position.

Winooski One Hydroelectric Station

Monthly Generation:	3,046.13 MWH (86.98% of average)
YTD Generation:	14,776.86 MWH (93.52% of average)
Month Capacity Factor:	55.32%
Annual Capacity Factor:	55.10%
Month Availability:	97%

Winooski concluded fishing on May 15th. Run time has been based on river flow patterns. There was a total of 6 hours of reduction due to tie breaker opening twice on 5/16 (GMP grid issue) and 5/21 (thunder storm).

Burlington Gas Turbine

Month Generation:	40.018 MWh
YTD Generation:	223.184 MWh
Month Capacity Factor:	0.234 %
Month Availability:	100.000 %
Hours of Operation Unit A:	2.9 hours
Hours of Operation Unit B:	2.9 hours

There were two operations of the asset this month, one self-scheduled operation for asset operability confirmation and training and one ISO NE dispatched operation. Both events were successful, and the asset is fully functional and in service at the end of the month with no reductions in place.

Solar (Airport 499 kW)

Month Generation:	88.1 MWh (+4% from previous year)
YTD Generation:	236 MWh
Month Capacity Factor:	24%
Month Availability:	100%

Solar (Pine Street 107 kW)

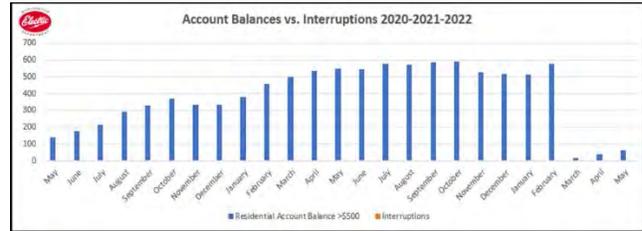
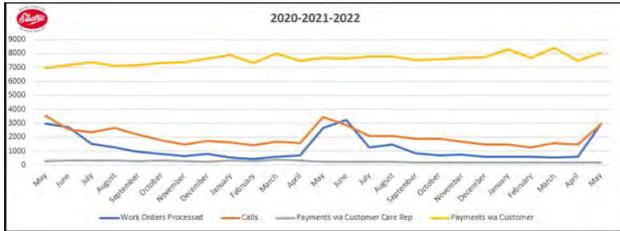
Month Generation:	16.8 MWh (+7% from previous year)
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YTD Generation: 40.2 MWh
 Month Capacity Factor: 21%
 Month Availability: 100%

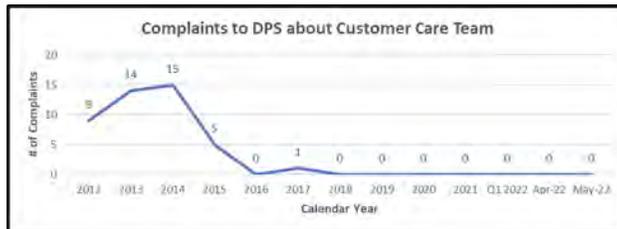
Center for Customer Care & Energy Services – Mike Kanarick

Customer Care

- **Call Answer Time (75% in 20 seconds):** May 2022 71.1%, April 85.0%, March 85.8%, February 85.2%, January 83.9%, December 2021 84.6%. May 2021 65.8%, April 91.0%, March 89.1%, February 93.1%, January 86.7%, December 2020 84.2%. Improvement of 5.3% over same time last year, during our busiest month of the year. **Monthly # calls more than doubled (1,464 to 3,410)** and **# work orders increased nearly 5x (610 to 2,909)** from last month. **Tremendous increase in use of web requests** for termination and new service.
- **May 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.**



Communications and Marketing

- Rate Case Proposal and Energy Assistance Pilot rolled out on May 18 via this [press release](#).
- Temporary Energy Assistance Program to offset 7.5% rate increase shifting to Energy Assistance Program of 12.5%: this monthly bill credit helps offset BED’s 1st rate increase in 12 years (last year) + this year’s proposed 3.95% rate case. So far, 101 (up from 99, 90, 79, 75, 69, and 58) customers have applied with 72 approved, 28 awaiting 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. BED has approved 810 of 1,099 (up from 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 \$660k (up from \$620k, \$568k, \$474k, \$434k January, \$353k December, \$323k November), of which BED has received \$643k (up from \$599k, \$533k, \$436k, \$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 27, (up from 13, 12) applicants and received \$9,015 in payments.
- Free Net Zero Energy Yard Signs: BED continues to encourage our community members to help spread the word about the impactful steps they’ve taken to help Burlington make progress along the path to becoming a Net Zero Energy city by 2030 by planting a sign in their yard and having conversations with as many members of our community as possible about what they have done to reduce their carbon footprint. Our awesome new yard signs say “WE’RE ONE STEP CLOSER! NET ZERO ENERGY” and includes space on which to place stickers that say, “ELECTRIC VEHICLE,” “HEAT PUMP,” “ELECTRIC LAWNMOWER,” “EFFICIENT APPLIANCES,” and “ELECTRIC BIKE.” Team BED has been delivering free yard signs to the homes of anyone who requests one and has delivered approximately 30 signs so far. We just ordered additional stickers that say “WALK-BIKE-BUS” and “WEATHERIZATION.” You can view and order a sign at burlingtonelectric.com/yardsign.
- Customer Satisfaction Survey: BED’s triennial Customer Satisfaction Survey (that was postponed by one year until FY21 with PUC approval due to the pandemic) is in the field with our commercial customers and already has yield enough responses from our residential customers. While we had been planning to have our third-party vendor make a presentation to the Commission at its June meeting, we now will have him present at an upcoming summer meeting to allow additional time to collect commercial survey results.
- Net Zero Energy Podcast: we hope you’ve had a chance to take a listen to BED’s new Net Zero Energy Podcast at www.burlingtonelectric.com/podcast, including our latest episodes about electric induction cooking and the thermal energy charter change.
- E-billing Promo Partnership with Vermont Gas and Vermont Lake Monsters: the BED-VGS-Lake Monsters partnership is back. E-billing saves \$18 per year per customer, with customers receiving two tickets and \$10 in Monster Money to spend at the ballpark. Game dates this year are on June 16 and July 6 when customers will join us at the ballpark and visit the BED booth on the concourse at Centennial Field.
- North Avenue News: our June column is a letter from GM Springer that shares information about our proposed new rate and the energy assistance program, as well as opportunities for rebates on e-mowers, e-bikes, and EVs. Our ad promotes the “So Many Rebates” theme and specifically plugs e-trimmers, e-mowers, and e-bikes.
- May 2022 Website and Facebook Highlights
 - Overall site-wide pageviews for May 2022 = 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 May 2022 = 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 May 2022



- 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	May 2022	Apr 2022	Mar 2022	Feb 2022	Jan 2022	Dec 2021	Nov 2021	Oct 2021	Sep 2021	Aug 2021	July 2021	June 2021	May 2021
Burlington Electric Department	9740	7384	8777	6657	7237	7353	7246	8186	7845	8464	9164	9085	9667
My Bill	2811	2519	2758	2585	3122	2670	2737	2825	2943	2846	3033	3295	3235
Waste Wood Yard	1928	1999	653	237	527	804	1649	1069	1045	1082	1212	1160	1569
Report A Problem	233	189	516	70	95	385	93	235	119	79	153	135	93
Stop or Start Service	2184	464	323	202	248	279	306	298	454	867	803	1079	2599
E-billing	287	234	266	266	340	345	274	276	376	345	522	451	337
Contact Us	784	489	555	360	445	439	448	460	577	642	638	731	949
McNeil Generating Station	648	726	557	255	374	379	644	443	347	339	447	429	627
Heat Pumps	638	512	559	331	382	264	394	477	406	496	567	369	82
Rebates	920	636	917	488	450	377	501	537	566	571	621	795	n/a
Rebate Center	1026	688	732	508	549	419	499	546	530	667	679	319	n/a
Green Stimulus	50	53	121	49	57	27	49	91	106	113	138	233	255
Stop or Start Service	2184	464	323	202	248	279	306	298	454	867	803	1079	2599
Leadership Team	185	284	269	237	265	196	222	206	243	276	228	240	212
Rates & Fees	254	220	246	180	221	203	166	214	178	132	143	247	310
Usage Tracker Registration	113	77	145	120	156	142	127	114	94	154	177	223	107
RFP	268	211	534	597	362	152	270	243	452	497	455	158	143
Residential Ways to Save	249	171	155	146	147	157	164	156	172	191	172	220	217
Electric Vehicles	273	274	356	296	222	244	296	289	272	265	245	332	247
E-Bikes	260	167	206	89	78	76	78	161	168	265	207	192	223
Net Zero Energy News	24	57	27	30	33	26	32	67	204	129	115	178	210
Electric Vehicles	273	274	356	296	222	244	296	289	272	265	245	332	247
COVID-19 Updates	n/a	10	11	11	17	16	22	79	153	166	397	540	335
Our Energy Portfolio	80	79	124	54	58	48	88	104	96	59	42	n/a	51
Lawn Care	472	121	149	31	n/a	n/a	n/a						
Electric Lawn Mowers & Leaf Blowers	n/a	n/a	n/a	23	49	39	94	117	150	133	184	229	408
RFP Detail	151	110	422	413	214	n/a	94	49	258	334	185	n/a	23
Defeat The Peak	25	9	16	11	8	12	12	n/a	11	137	22	155	11
Commercial Ways to Save	43	42	63	45	30	43	37	41	98	55	39	62	26

- Top-performing Facebook post
 - Showing our City Councilors around McNeil and Winooski One



Blue: clicks / Red: comments, shares

Energy Services

UVM

- UVM Terrill Hall / Lab Hood Control Upgrade - The purpose of this project is to upgrade 11 existing lab hoods by replacing air flow hardware and controls with the latest technology. The old constant volume two-position control strategy is being converted to variable control. Lab air-change rates are being adjusted to the latest standard (reduced) and hood face velocity is being reduced from 100 to 90 FPM. This will provide a safer environment for researchers and at the same time save considerable electrical energy, as well as NG heating. The project is scheduled to be completed by the end of June. BED is presently developing a strategy to predict energy savings and provide an incentive estimate.

UVMCC

- UVMCC Secondary Chilled Water Balancing – The Miller Building addition finished several years ago and created a significant new load on the central chiller plant. In order to optimize chiller efficiency, the chiller secondary loop needs 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 project is just now being re-initiated with a new kick-off meeting, with more to follow by early next month.

Other Services

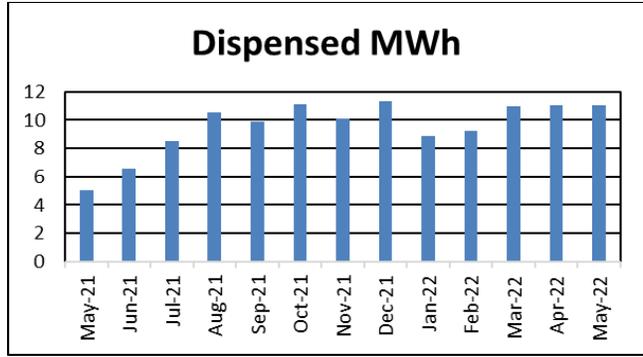
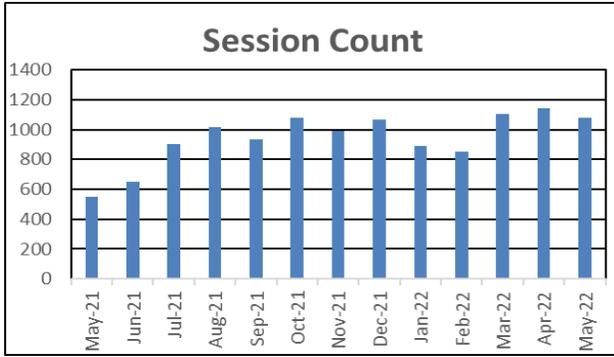
- Weatherization coordination with VGS - VGS requested electrical account usage histories (with customer permission) for 3 SF and 13 MF buildings (representing 48 living units) this month for the purpose of weatherization audit preparation and building energy use analysis. This brings the total TTD (2021-2022) requests to 128 SF and 97 MF buildings (representing 325 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.
- Eight homes are now enrolled 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.
- Main St. Landing / 1 Main St. HVAC Recommissioning – This is a project that was initiated over two years ago and was interrupted in implementation by Covid restrictions beginning March 2020. The scope of the work eventually increased to the addition of two-way valves to heat pumps and the inclusion of variable speed drives for pumping. Recent analysis of the house meters for this three-building facility along with comparing pre-project and post-project consumption show considerable electrical energy savings.
- Old Spokes Home / Lighting Retrofit – This bicycle sales and repair shop in the Old North End of Burlington has upgraded most of the existing lighting fixtures in their facility with LED light engines and drivers. BED completed a site walkthrough of the store last month to confirm the completion of the work. This month all paperwork was completed, and the incentive check was mailed out.
- Hannaford North Ave / Renovation – BED is working with VEIC on energy savings measures associated with this supermarket renovation project. Measures include new lighting fixtures, efficient refrigerated cases, and enclosing a partially open produce cooler.
- Echo Center / Net Zero Renovation – The Echo Center (“Vermont’s Science and Nature Museum on the Burlington Waterfront”) previously 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 was obtained several months ago to outline the series of steps required to develop a final scope of work and a cost estimate. This initial investigative work has been in motion for several months now. A test well drilling recently completed has returned positive results, so an open loop geothermal HVAC system seems to be the most viable direction for the Net Zero design. BED has been in contact with the engineering team to provide additional background data so that the final definition of the Net Zero roadmap can be completed.
- Citizen Cider – 7 Kilburn St. / New Air Compressor – A new 35 HP air compressor, with refrigerated dryer, has been installed at the Pine St. facility of Citizen Cider. A site visit is pending as well as some final paperwork before the rebate can be paid.
- King St. Laundry / Natural Gas Dryer Efficiency - The new owner of this facility is considering replacing 10 commercial natural gas dryers or investigating modifications to increase efficiency. VGS has suggested modifying the make-up air system for the dryers to isolate it from the building HVAC system. This should provide heating and some cooling energy savings.
- Community Sailing Center / Net Zero Energy Analysis – This new construction project on the Burlington Waterfront was completed several years ago. It was designed to be energy efficient and have sufficient solar pv to qualify it for “Net Zero Energy” status. One hundred per-cent of the building’s energy is supplied via the electric grid, there is no natural gas service connected. At the customer’s request, BED completed an analysis of the building’s energy use vs. the total electrical energy delivered to the grid by its solar pv array. We have confirmed that from the period of the

building's first occupancy up to this month there is a net positive energy balance between building energy usage and grid solar pv energy delivery.

- YMCA – 298 College St. / Recommissioning – This new facility in downtown Burlington has been in operation since early 2020. However, both electric and natural gas consumption has been higher than expected over that period. The facility manager has completed some set-point adjustments involving reduced pool water and room space temperature. Additional investigation is envisioned in the area of heat recovery and NG boiler efficiency improvements. It is hoped that energy usage reductions will soon become evident in future utility bills.
- 77 Pine St. Renovation / Bank Offices and Multifamily – The north side of this renovated building is bank offices and has been fully occupied since April 2021. The south side renovation of this building, which consists of 49 apartment units, is nearing completion. BED has been working for several months on the calibration of the bank side energy model in comparison to the actual energy usage of that half of the building. This process is finally nearing completion. The multifamily south half of the building has just become fully occupied. An initial rebate for this half of the building is pending from BED, once we are satisfied that this preliminary energy model is sufficiently detailed and accurate.
- Hula Office Complex / Lakeside Ave – This two-building new construction project on the shores of Lake Champlain has been in operation for 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 calibration of the original energy model to the actual electrical usage of the building is now in progress. An on-site meeting was held this month with the facility manager, the energy modeler, and BED will review discrepancies between expected and actual energy use. BED made a complete tour of the facility to detail actual building plug loads to ensure that the energy model contains all the latest information. An unexpected amount of extra refrigeration load was located in the building and some of the lab equipment had unexpected high-power draws. It is hoped that the modeler now has enough information to develop a final calibrated model for the building which will allow the final rebate for the project to be paid and the project to be closed.

Electric Vehicles

- The Public EVSE tariff was updated on May 20.
- The EVSE dispensed a total of 11.0 MWh and supported 1,081 sessions.
- The top 3 sales were 60, 67 & 81 kWh and occurred at the Cherry St. and College St. garages.
- The top 10 sessions (0.9% of total) accounted for 5.6% (612 kWh) of the total monthly sale. The ten sessions ranged from 54 kWh-81 kWh.
- The EVSE served 568 unique drivers.
- The replacement head for BE08/UVM Aiken Center arrived May 26. It will be installed between June 1-3.
- On April 18 we received notice that the Pine St. DCFC order was processed. There is a 3–4-month lead time. The mounting plate/template was shipped in advance and arrived May 3.
- Session Count and Dispensed Energy plots from the from the public charging network are shown below.



- Number of EV and PHEV rebates to date – 379 (of this 67 LMI rebates to date as shown below)
 - New All Electric Vehicle – 153
 - New All Electric Vehicle (LMI) – 27
 - New PHEV – 100
 - New PHEV (LMI) – 36
 - Used All Electric Vehicle – 32
 - Used All Electric Vehicle (LMI) – 2
 - Used PHEV- 14 15
 - 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- 123
- Number of EV home charging stations rebates to date – 57

Electric Lawn Equipment to Date

- Number of e-mower rebates to date – 424 (11 commercial & 413 residential)
- Number of e-leaf blowers to date – 37
- Number of Residential e-Trimmers – 4
- Number of Residential e-chainsaws – 3

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

- Total Number of Heat Pump Technology rebates to date- 676 (of this 104 LMI rebates to date as shown below)
 - Number of ductless heat pumps to date – 419
 - Number of LMI eligible ductless heat pumps to date – 87
 - Number of centrally ducted heat pumps to date – 126
 - Number of LMI eligible centrally ducted heat pumps to date – 12
 - 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 – 23
 - 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 – 295

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

- Number of induction Stovetops rebates to date – 19

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

- Number of snow blower rebates to date – 2

BED 2021-2022 Strategic Direction Dashboard

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

BED 2021-2022 Strategic Direction Dashboard

Metrics by Strategic Initiative	Target	May 2022 Actuals	Apr 2022 Actuals	Mar 2022 Actuals	Feb 2022 Actuals	Jan 2022 Actuals	2021 Yearly Actual	2020 Yearly Actual	2019 Yearly Actual	
Innovate to Reach Net Zero Energy										
<i>Tier 3 Program</i>										
# of residential heat pump installs		12	9	26	13	20	315	203	10	
# of commercial heat pump installs		0	0	0	1	1	4	13	0	
# of residential hot water heat pump installs		1	1	0	1	0	14	6	4	
# of commercial hot water heat pump installs		0	0	0	0	0	0	0	0	
Heat pump rebates		12	9	26	14	21	328	212	0	
Heat pump hot water heater rebates		1	1	1	1	0	15	3	0	
LMI heat pump rebates		2	4	4	6	0	28	6	4	
Heat pump technology installs in rental properties		0	0	1	1	1	14	9	TBD	
LMI heat pump hot water heater rebates		0	0	1	0	0	2	0	1	
EV rebates - new		2	3	5	2	6	67	14	36	
EV rebates - pre-owned		3	3	3	0	1	7	8	2	
LMI EV rebates	See NZE Roadmap Goals below	0	1	0	0	0	11	7	7	
PHEV rebates - new		1	1	6	0	0	41	10	17	
PHEV rebates - preowned		1	0	1	0	1	6	5	3	
LMI PHEV rebates		2	1	5	1	1	13	6	2	
Public EV chargers in BTV (total)		27 ports	27 ports	27 ports	14					
Public EV charger energy dispensed (kWh)		11,000	11,000	11,000	9,200	8,860	86,570	35,690	78,000	
Home EV charging station rebates		0	0	0	0	1	32	20	12	
EV rate charging customers (total)		123	116	109	106	102	40	40	28	
Level 2 charger rebates		0	0	0	0	0	10	0	1	
Level 1 charger rebates		0	0	0	0	0	0	1	0	
E-bike rebates		12	8	0	3	4	88	36	65	
E-mower rebates		23	4	1	1	2	154	95	142	
E-forklift rebates		0	0	0	0	0	0	0	0	
MWE of Tier 3 measures installed		1,286	1,015	2,013	829	1,730	23,763	35,112	3,342	
% Tier 3 obligation met with program measures	100%	40%	33%	27%	15%	10%	159%	283%	31%	
<i>Net Zero Energy Roadmap Goals</i>										
# of solar net metering projects installed		7	2	3	1	4	29	24	33	
No. of homes receiving NZE Home Roadmaps		1.0	0	2	1	2	10	7		
Residential heat pumps for space heating (no. of homes)	2022: 8615	NA	NA	NA	NA	NA	1235, 20% of goal	891	572	
Commercial heat pumps for space heating (1000 SF floor space served)	2022: 5397	NA	NA	NA	NA	NA	405, 11% of goal	374	374	
Residential heat pumps for water heating (no. of homes)	2022: 4365	NA	NA	NA	NA	NA	108, 4% of goal	108	87	
Commercial heat pumps for water heating (1000 SF floor space served)	2022: 1019	NA	NA	NA	NA	NA	0	0	-	
EV registrations in BTV (light-duty)	2022: 2294	NA	NA	NA	NA	NA	549, 45% of goal	361	296	
Greenhouse gas emissions (1000 metric tons CO2)	2022: 150	NA	NA	NA	NA	NA	188, 114% of goal	185	214	
Fossil fuel consumption (billion BTU)	2022: 2418	NA	NA	NA	NA	NA	3220, 120% of goal	3,182	3,660	

BED 2021-2022 Strategic Direction Dashboard

Metrics by Strategic Initiative	Target	May 2022 Actuals	Apr 2022 Actuals	Mar 2022 Actuals	Feb 2022 Actuals	Jan 2022 Actuals	2021 Yearly Actual	2020 Yearly Actual	2019 Yearly Actual
<i>Demand Response</i>									
Manage Budget and Risks Responsibly									
<i>Safety & Environmental</i>									
No. of workers' compensation/accidents per month	0	3	3	0	1	0	4	8	
Total Paid losses for workers' compensation accidents (for the month)	\$225,000 annual	\$5,153	\$3,573	\$382	\$396	\$757	\$ 93,612	\$ 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	0.0	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	0.0	41.71	78.2
Lost work days per month	0	0	0	0	0	0	0.0	45	
NOx reporting levels to EPA (Quarterly) (lbs/mmbtu)	<0.075	0.062	0.0	0.07	0.07	0.071	0.07	0.07	
# of reported spills, waste water incidents (monthly)	0	0	0	0	0	0	4	4	
Phosphorus levels to DEC in lbs (monthly/yearly total)	<0.8/37	0.024/0.862	0.119/1.008	0.104/1.52	0.067/1.714	0.145/1.839	2.028		1.169
# of new power outage claims reported (monthly)	1	0	0	0	0	0	7	4	
# of new auto/property/other liability claims reported (monthly)	2	0	4	2	0	0	18	27	
<i>Purchasing & Facilities</i>									
# of Purchase Orders for Inventory (Target: avg for winter months)	42	50	59	56	39	70	644	593	
\$ value of Purchase Orders for Inv. (Target: avg dollars spent during winter)	\$78,000	\$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	526	446	531	556	387	4,402	4,545	
\$ value of stock issued for Inventory (Target: avg. during winter)	\$ 65,000	\$ 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	117	42	164	76	96	2,728	627	
# of Spark Space and Auditorium setup/breakdowns monthly (Target: Covid impact)	3	11	12	7	3	2	88	87	
<i>Finance</i>									
Debt service coverage ratio	1.25		4.59	5.47	5.26	5.15	NA-FY basis	NA-FY basis	NA-FY basis
Adjusted debt service coverage ratio	1.5		1.2	1.5	1.43	1.39	NA-FY basis	NA-FY basis	NA-FY basis
Days unrestricted cash on hand	>90		139	138	145	142	NA-FY basis	NA-FY basis	NA-FY basis
<i>Power Supply</i>									
McNeil generation (MWH) (100%)	per budget	3,787	0	25,342	33,825	36,165	273,355	192,696	
McNeil availability factor	100%	11%	60%	87%	100%	96%	80%		
McNeil capacity factor	per budget	10.2%	0%	68%	100.7%	97.2%	62.4%		
Winooski One generation (MWH)	per budget	3,046	4,495	3,850	1,751	1,635	24,752	21,194	
Winooski One availability factor	100%	97%	97%	99%	98%	98%	97%		
Winooski One capacity factor	per budget	55%	84%	69%	35%	30%	37%		
Gas Turbine generation (MWH)	NA	40	16	137.4	13.7	16.1	373	441	
Gas Turbine availability factor	100%	100%	100%	97%	100%	93%	96%		
Gas Turbine capacity factor	NA	0.23%	0.1%	0.8%	0.09%	0.09%	0.21%		
BTV solar PV production (mWh)			488	396	235	156	5,015	5,182	
Cost of power supply - gross (\$000)			\$2,565	\$2,718	\$2,409	\$2,116	\$30,285	\$31,081	
Cost of power supply - net (\$000)			\$2,565	\$2,718	\$746	\$2,116	\$22,134	\$23,388	
Average cost of power supply - gross \$/KWH			\$0.11	\$0.10	\$0.09	\$0.07		\$0.10	
Average cost of power supply - net \$/KWH			\$0.11	\$0.10	\$0.03	\$0.07		\$0.08	

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

Wednesday, May 18, 2022, 5:30 pm

The regular meeting of the Burlington Electric Commission was convened at 5:30 pm on Wednesday, May 18, 2022 at the 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, and Stebbins were present. Commissioners Chagnon and Whitaker were absent.

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

Staff members present via Microsoft Teams included Rodney Dollar, James Gibbons, Erica Ferland, Mike Kanarick, and Dave MacDonnell.

1. Agenda

There were no changes to the Agenda.

2. April 13, 2022 Meeting Minutes

Commissioner Moody made a motion to approve the minutes of the April 13, 2022 Commission Meeting; the motion was seconded by Commissioner Herendeen and approved by all Commissioners present.

3. Public Forum

No one from the public was present for the meeting.

4. Commissioners' Corner

Commissioner Herendeen stated that he realized that the topic regarding street lighting standards will not be discussed tonight due to the heavy agenda but would like to understand the process the department goes through. The department follows certain recommendations about lighting in the City, and the Commission has decided to revisit this topic. BED follows the recommendations from the Illuminating Engineering Society (IES), which updates its recommendations over time. Commissioner Herendeen stated that the IES will publish some of the recommendations, but other

recommendations are available before they are formally released. These pre-released recommendations are what the Department is looking to obtain to see if there is something going on in the field of lighting that might produce new results that the City could incorporate.

Commissioner Herendeen sees lighting as a three-step process:

- i. What does BED do regarding street lighting?
- ii. What does the IES formally say regarding this issue?
- iii. What other things regarding street lighting are going on in the country?

Commissioner Stebbins stated that, since Commissioners Chagnon and Whitaker were not on the Commission at the time of the last street lighting overview, she would like to include a presentation for the Commission so all five Commissioners can begin the conversation on street lighting with the same level of understanding. Commissioner Stebbins asked the Commissioners and BED staff if it made sense to have a Street Lighting Primer at the June Meeting to start off the conversation regardless of whether BED hears back from the IES before that time.

Mr. Springer stated that in January or February Mr. Elliston provided an overview to the Commission regarding the current lighting situation. Mr. Springer stated that Mr. Elliston would benefit from knowing more specifically about what the Commission might be interested in hearing. Mr. Alexander also is engaged in this discussion from a liability standpoint and in terms of what our requirements are regarding lighting the streets and Mr. Alexander could provide a basic overview if that would be helpful. The Commission felt it would be helpful and this item will be placed on the June agenda.

5. GM Update

Mr. Springer stated that the Department has new Net Zero Energy yard signs that can be seen around the City. Anyone interested in receiving a sign can sign up at www.burlingtonelectric.com/yardsign. Also, this month, we have a bill insert focusing on the need to consider replacing old water heaters before they break with renewably powered heat pump water heaters with available BED incentives.

Mr. Springer stated that the Governor has signed Burlington's Thermal Charter Change and that BED worked with the Mayor and City Council on a Resolution, which passed unanimously on May 9, 2022, to lay out further work by BED and DPI, with a July 18 initial report back date. The work will focus on new construction, municipal buildings, and large commercial buildings.

Mr. Springer stated that he participated in a meeting on May 3, 2022 with Ms. Stebbins-Wheelock, Mr. Kanarick, and members of CEDO's Trusted Community Voices Program. This is a group whose leaders meet with leaders from refugee and immigrant communities to learn about how we can do more to reach our community. We discussed language translation and literacy, ideas for outreach and trainings, and incentive program barriers. We look forward to additional partnership

opportunities.

Mr. Springer stated that, unfortunately, we were not successful on the partnership with CEDO for the battery storage project at Elmwood Avenue. We are looking into one other option that may allow us to help deploy battery storage for that site. It would not be with federal funding. The option would have battery storage that BED can utilize for peak reduction during peak events, along with being available for the temporary shelter.

BED hosted City Councilors Hanson, Barlow, and Traverse for tours at McNeil and Winooski One recently, as well as Vermont Senate President Pro Tem Becca Balint. We are ramping up our tours for school groups, policymakers, and others who are interested in visiting.

6. FY22 March Financials

Ms. Byrne presented the budget-vs-actual results for the month of March FY22. The Department had a net income of (\$397K) in March compared to a budgeted net income of (\$868K). On the revenue side, actual sales to customers were favorable compared to budget by \$115K. Residential sales were up \$103K, and commercial sales were up \$10K. Other revenues were down \$61K, partially due to lower than budgeted EEU receipts. There were no REC receipts in March.

Power supply expenses were \$335K less than budget. Transmission fees were under budget for the month. Production was under budget at McNeil, and wood prices were over budget. This was offset by higher than budgeted prices for generation. Other operating expenses were down \$74K compared to budget. Other income was \$59K, and interest expense was under budget by \$12K. For FY22 year-to-date, actual net income is \$1,462K better than budget. Sales to Customers is \$136K under budget. Other revenues are down due to lower than anticipated EEU receipts and customer billings. Power supply revenues are down by \$49K or less 1% for the year. McNeil REC revenue is tracking to the budget, helping make up for lower performance for wind, hydro, and other REC generators. On the expense side, power supply is under budget by \$1,866K, driven by purchase power, transmission, and fuel costs all coming in under budget. Operating expenses are running below budget by \$1.278M.

As of March, the Department has spent 43% of the FY22 capital budget. Capital spending will see an increase in April and May due to the McNeil overhaul. At the end of March, the Department has an operating cash balance of \$10.69M with 138 days cash on hand. The debt service coverage ratio is 5.47 and the adjusted debt service coverage ratio is 1.5.

7. Fiscal Year 2023 Draft Budget

Mr. Springer stated that, because the draft budget and the rate case agenda items are tied together, we will present on both and then give the Commission the chance to consider these items distinctly. We will begin with presenting the draft budget and will pause to give the Commission the

opportunity to weigh in before presenting the rate case.

Mr. Springer and Ms. Byrne presented the preliminary FY23 budget. Mr. Springer outlined several items that are included in the final budget presented to the Commission, including the current high inflation environment. He stated that there are some assumptions included in the budget based on uncertainty associated with unprecedented energy forwards and the prices of wood for McNeil (driven primarily by current diesel prices). The current IBEW contract expires on June 30, 2022. The Department is in a strong cash position going into FY23, driven by strong production at McNeil, while energy prices were high in winter of 2021-22. Additionally, the budget includes capital projects funded with the Net Zero Energy Revenue Bond proceeds. The budget works to improve the ADSCR Moody's rating metric.

Ms. Byrne presented details about the revenues and expenses put forward in the budget proposal. She stated that the budget assumes operating revenues of \$63.6M in FY23, about 5% higher than the FY22 budget. The revenues include a rate increase of 3.95% effective August 1. The rate case is needed to respond to inflation and other uncontrollable cost increases. The budget assumes increased kWh sales to customers as the COVID-19 pandemic effects lessen. The budget also includes increased REC sales.

The budget assumes operating expenses of \$64.5M in FY23, about 1% higher than the FY22 budget. The budget includes a \$1M increase in wood fuel costs primarily driven by the increased cost of diesel fuel. State/regional transmission costs are increasing by \$869K. The purchased power budget was reduced by \$2.6M due to anticipated higher than historical energy forwards. The City's indirect allocation increased \$134K. The budget includes an additional project manager/business analyst FTE funded by the reallocation of contracted services. The interest expense is 30% higher than in FY22 due to the Net Zero Energy Revenue Bond. Net Income is \$1.23M, about \$424K higher than the FY22 as passed budget. The budget includes the Energy Assistance Pilot Rate, which will provide qualifying customers with a 12.5% discount in FY23. The rate will be paid for utilizing carryover ARPA funds.

Ms. Byrne stated that the Debt Service Coverage Ratio for the FY23 budget is 3.91 and the Adjusted Debt Service Coverage Ratio is 1.26, with 104 days cash on hand.

Ms. Byrne presented a high-level overview of the FY23 capital budget. She stated that the FY23 budget includes \$9.1 million of capital investment funded with \$3 million from the City of Burlington's General Obligation Bond and \$5.7 million from the Net Zero Energy Revenue Bond. FY23 capital projects include new EV charges, two EV fleet vehicles, VELCO equity, distribution, and IT systems upgrades, as well as general plant maintenance.

Mr. Springer stated that the FY 2023 budget continues strong progress on the City's Net Zero Energy goals. He acknowledged that the energy BED utilizes continues to be 100% renewable. He stated that the Department will continue to offer incentives for heat pumps, EVs, electric lawn equipment, e-bikes, energy efficient appliances, and more through Act 151/Green Stimulus. The

incentives for electrification rebates are doubled through the Revenue Bond Plan at \$1.77 million in addition to \$1.9 million for energy efficiency programs/rebates. A go/no-go determination on the district energy system project will occur in 2022. In addition, the department will: repurpose energy services and sustainability positions to add more staff capacity; install Level 2 and Level 3 EV chargers; replace two gas powered fleet vehicles with EVs; convert the line crew gas chainsaws/pole saws to electric; convert the GT to biodiesel (phase 1); fund a solar test site at McNeil in partnership with UVM; and establish a community ambassador program.

2022 Rate Case:

Mr. Springer stated that the Department is proposing a 3.95% rate increase effective August 1, 2022. At the last Commission meeting, we discussed a proposed rate increase of 4.9%. The Department was able to lower the increase to 3.95% due in part to updated energy forward prices. Prime risks in this budget are either McNeil being offline for a significant period of time during the upcoming winter or experiencing such a mild winter that the high energy forward prices do not materialize. The benefit is, if things go as we project, the 3.95% increase would allow the Department to meet its targeted Moody's metrics and associated net income of \$1.23 million at a lower requested increase than we were projecting the need to be last month.

Mr. Springer presented a timeline of BED rate changes since 1980 and noted that the Department had a rate change in 2021 and now 2022. Mr. Springer stated that the Department's expectation is to have rate changes regularly, with the goal and commitment to make them more moderate than the 2021 increase of 7.5%. Our goal is to get to a point where the rate adjustments are even more moderate than the 3.95% we are proposing this year.

Mr. Springer presented a slide showing the price of BED electricity versus other commodities from 2010 through February 2022. Mr. Springer stated that things like housing, medical care, inflation, and vehicle prices have increased far more than BED's rates over that period of time, and that some prices would be even higher if he showed data through March, April, or May 2022. BED has been able to hold its rate trajectory well below the rate of inflation for over a 12-year period.

Presented next was a residential rate comparison from 2010-22. Mr. Springer noted that the most recent data on this graph is projected and not actual. These projections indicate that BED's residential rate, including the proposed 3.95% increase, will continue to be well below the Vermont and New England averages. The graph also showed the effect of BED's Energy Assistance Program, a 12.5% discount. Even after the 7.5% 2021 rate increase and the proposed 3.95% increase, participating customers will see a lower net cost when they start on the new rate.

The next slide was a commercial and industrial rate comparison from 2010-22. Mr. Springer stated that the most recent data on this slide also is projected and not actual. This graph indicates that BED's commercial and industrial rate is a little higher than the New England average.

Mr. Springer stated that BED's total cost to serve continues to be lower than the Vermont and New

England averages for the 2010-20 period.

Mr. Springer stated that the Department always considers the impact of any rate change on residential customers' bills. The proposed increase would result in a \$3.10 increase for an average residential bill; for small general customers, the increase would be an average of \$3.50.

The last slide discussed BED's proposed Energy Assistance Program. Mr. Springer stated that the cumulative effect of last year's 7.5% increase and the proposed 3.95% increase would add approximately \$8.95 to the bills of low-income customers who are participating in the program. The Energy Assistance Program bill credit starting in July would be \$10.65, so these customers actually would see savings relative to the bill impact from the rate changes.

Mr. Springer stated that, if the Commission advances the proposed rate increase, the Department will present this budget proposal and rate case to the City Board of Finance tomorrow, and the Board of Finance and City Council will vote on it concurrently at their June 6 meetings. The Department then will file the requested rate increase with the Vermont Public Utility Commission (PUC) in mid-June to go into effect on customer bills as a surcharge starting August 1. The increase would then undergo PUC review, which could take several months and, if approved, would stay on customer bills, and be incorporated into the rate. Any divergence in what the PUC approves from our proposal would be refunded to customers at that point in time.

Mr. Springer answered a few questions, and the Commission concluded that they were ready to vote on the draft budget and rate case.

Commissioner Moody made a motion to approve the Department's Fiscal Year 2023 Capital and Operating Budgets as presented; the motion was seconded by Commissioner Stebbins and approved by all Commissioners present.

Commissioner Moody made a motion to recommend to the Board of Finance and the City Council the authorization to pursue a rate case in the amount of 3.95% for services rendered beginning August 1, 2022; the motion was seconded by Commissioner Herendeen and approved by all Commissioners present.

8. Fiscal Year 2023 Obligation Bond

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

As in FY21 and FY22, the City again is planning to seek City Council approval to issue a Bond Anticipation Note (BAN) for FY23. The FY23 BAN will be converted to a General Obligation bond in

FY24.

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

8. Commissioners' Check-In

Commissioner Herendeen thanked Mr. Kanarick for researching his question regarding how much BTV Stat information would be available to the public.

Commissioner Herendeen stated that he looked at the BED website and did not see BED's 2021 Performance Measures Report (PMR) and asked why it wasn't issued.

Mr. Springer stated that PMRs are now web versions and not printable PDFs. Mr. Springer stated that we had not yet prepared the 2021 PMR and would be doing so. Mr. Kanarick stated that a meeting regarding the PMR is scheduled for next week and that he expects that the PMR will be published on our website within the next several weeks.

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 6:57 p.m.

Attest:



Laurie Lemieux, Board Clerk



*FY 2022
Financial Review
April*

June 2, 2022

Burlington Electric Department Financial Review

FY 2022

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FINANCIAL HIGHLIGHTS – BUDGET VS ACTUAL as of April FY22

(\$000)	Full Yr Budget	CURRENT MONTH			YEAR TO DATE		
		Budget	Actual	Variance	Budget	Actual	Variance
Sales to Customers	48,172	3,450	3,256	(194)	40,716	40,658	(58)
Other Revenues	3,978	299	317	18	3,108	2,570	(538)
Power Supply Revenues	8,404	0	0	0	6,058	6,009	(48)
Total Operating Revenues	60,554	3,750	3,573	(176)	49,881	49,237	(644)
Power Supply Expenses	32,155	2,388	2,565	(177)	26,806	25,117	1,689
Operating Expense	21,543	1,958	2,068	(110)	17,078	15,910	1,168
Depreciation & Amortization	6,007	501	503	(3)	5,006	5,090	(84)
Gain/Loss on Disp of Plant	291	0	0	0	291	233	58
Taxes	3,935	318	271	47	3,279	2,767	512
Sub-Total Expenses	63,932	5,164	5,408	(243)	52,460	49,117	3,343
Operating Income	(3,378)	(1,415)	(1,834)	(419)	(2,578)	120	2,699
Other Income	6,588	508	353	(155)	5,679	3,803	(1,876)
Interest Expense	2,402	201	189	12	1,995	1,920	75
Net Income (Loss)	808	(1,108)	(1,671)	(563)	1,105	2,003	898

Year-to-Date Results:

- **Sales to Customers** down \$58,000 (within budget). Residential Sales up \$972,900 and Non-Residential Sales down, \$1,022,300.
- **Other Revenues** down \$538,000 (17.3%)
 - a. DSM billable (customer driven) down \$461,200.
- **Power Supply Revenues** down \$49,000 (1%)
 - a. McNeil REC revenue of \$3,442,000 compared to a budget of \$3,030,000.
 - b. Wind REC revenue of \$1,987,000 compared to a budget of \$2,277,000.
 - c. Hydro REC revenue of \$459,000 compared to a budget of \$585,000.
 - d. Other REC revenue of \$122,000 compared to a budget of \$167,000.
- **Power Supply Expenses** down \$1,689,000 (6%)
 - a. Purchased Power down \$1,193,000.
 - b. Fuel down \$372,000.
 - c. Transmission Fees down \$124,000.
- **Taxes** down \$512,000 (15.6%)
 - 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 \$1,168,000 (5.6%)
 - a. Various items are less than budget. This includes outside services (\$313,700), materials & supplies (\$229,900), transportation clearing & building clearing (\$111,400) and uncollectible accounts (\$90,500). Offset by higher expense due to the credit for A&G (“Admin and General Expenses”) charged to Capital projects was less than planned, \$353,000.
- **Other Income** down \$1,876,000
 - a. Budget assumed \$750,000 of ARPA. Also, assumed customer contributions for Shelburne Road roundabout relocation, \$616,700, UVM LCOM, \$116,200 & Champlain Pkwy, \$445,700.

FINANCIAL HIGHLIGHTS – BUDGET VS ACTUAL as of April FY22

Capital Spending – April YTD (\$000's)				
Plant Type	Full Yr. Budget	Budget	Actual	% Spent
Production	\$1,017	\$968	\$241	24%
Other	192	173	0	0%
Distribution	3,577	3,218	2,850	80%
General	2,034	1,631	806	40%
Sub-Total	6,820	5,990	3,897	57%
Transmission	1,150	1,150	0	0%
Total	\$7,970	\$7,140	\$3,897	49%

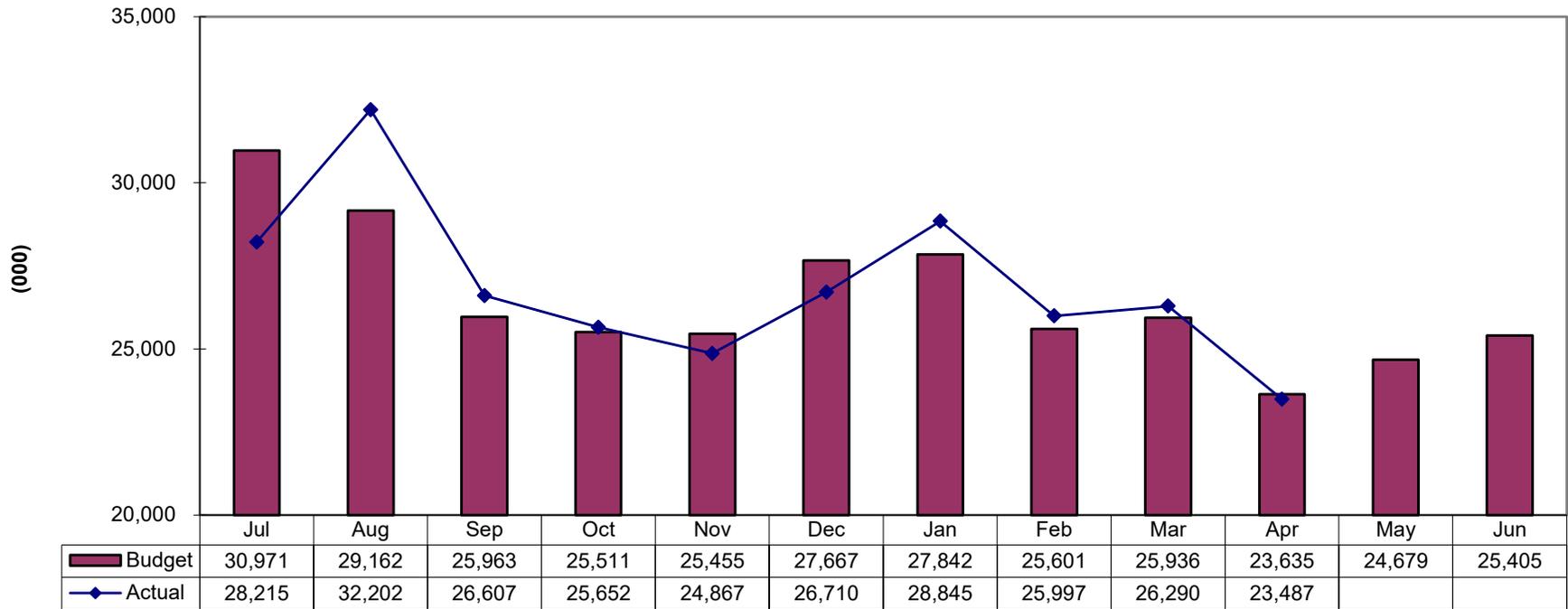
- (1) **Production** – Timing of projects at McNeil, \$440,000 and Gas Turbine, \$81,300. The unit #3 bearing replacement budgeted for Winooski One will not happen this fiscal year, \$125,000.
- (2) **Other** – Timing; budget includes Level 2 & 3 chargers, Packetized Energy, and research & development.
- (3) **Distribution** – Timing of various projects; replace condemned poles deferred to future year and delivery of UG switches delayed until FY23.
- (4) **General** – IT Forward project was budgeted throughout the year; YTD expenses of \$668,200 compared to a budget of \$1,242,600. Pole mount routers YTD expenses of \$13,700 vs budget of \$135,000. Electric Bucket Truck replacement was budgeted throughout the year, delivery has been delayed until FY 2024.
- (5) **Transmission** – VT Transco equity purchased deferred.

As of April 30, 2022 Cash and Investments	
Operating Funds	\$10,101,300
Operating Fund – CDs	\$1,159,000
Total Operating Fund	\$11,260,300

Credit Rating Factors				
	"A"	"Baa"	Current	3 Year Average
Debt Service Coverage Ratio	1.25	1.25	4.59	3.85
Adjusted Debt Service Coverage Ratio	1.50	1.10	1.21	0.96
Cash Coverage - Days Cash on Hand	90	30	139	125

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

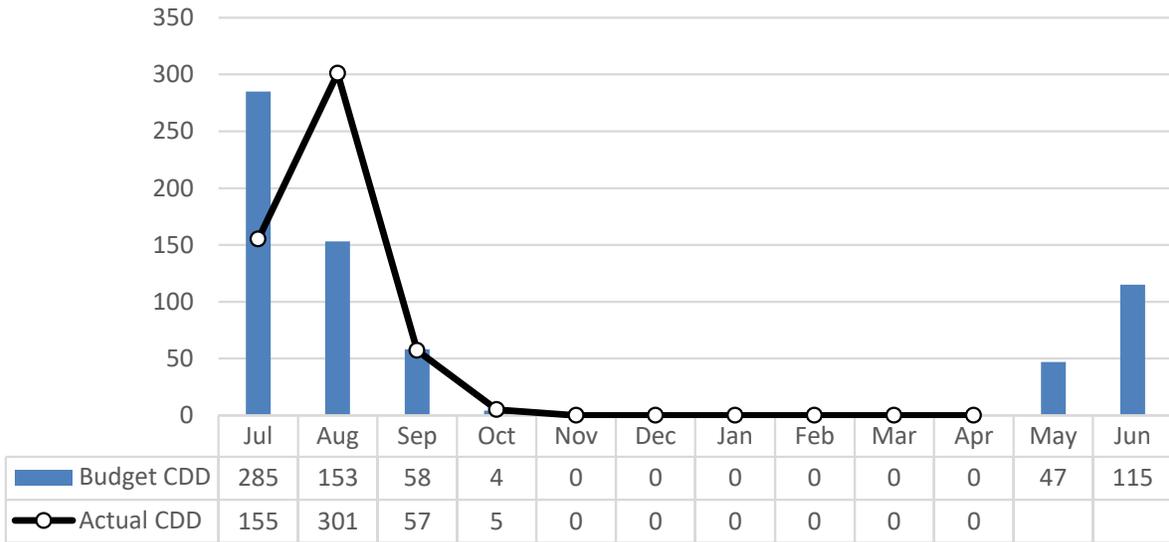
**Total Sales to Customers - KWH
Monthly**



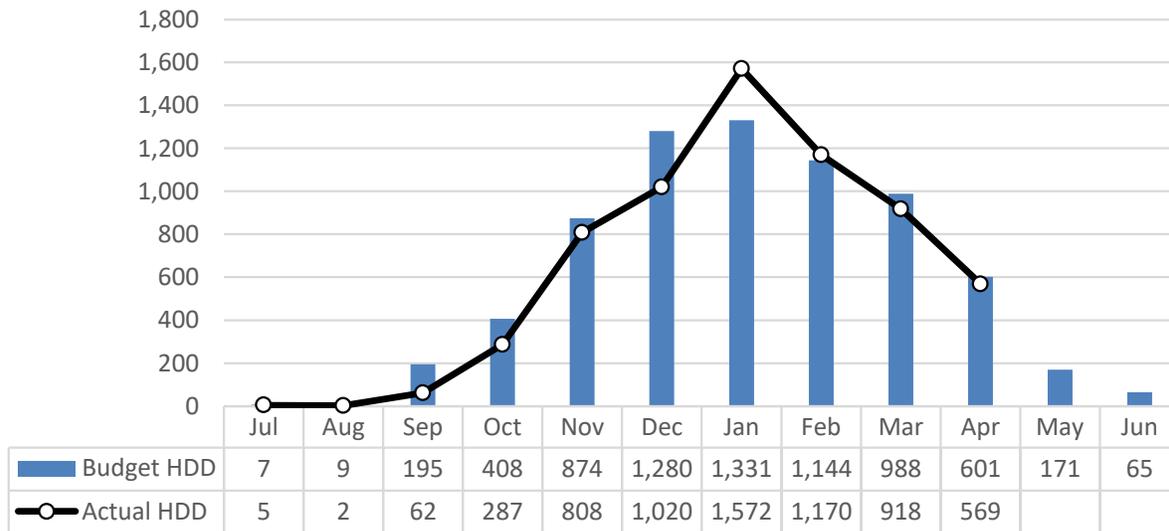
KWH Sales to Customers (YTD)												
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Budget	30,971	60,134	86,097	111,608	137,063	164,730	192,571	218,172	244,108	267,743	292,422	317,827
Actual	28,215	60,417	87,024	112,676	137,543	164,253	193,098	219,094	245,384	268,872		

FY 2022

Cooling Degree Days (CDD)



Heating Degree Days (HDD)

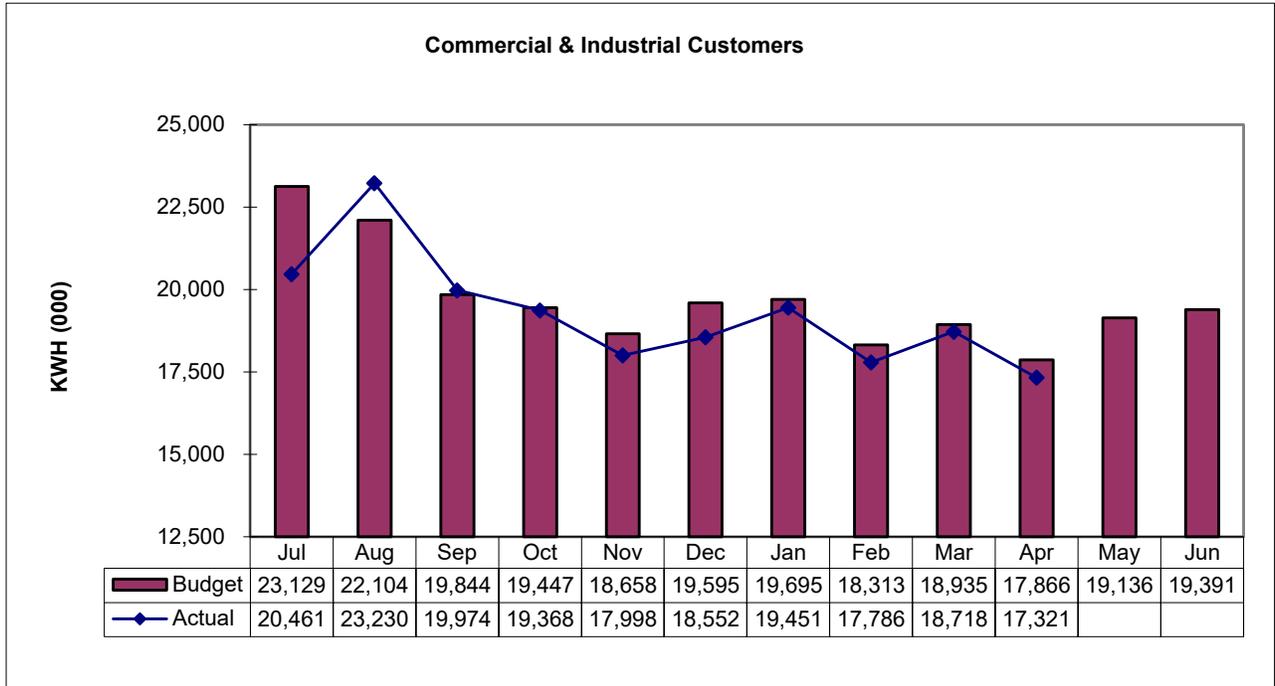
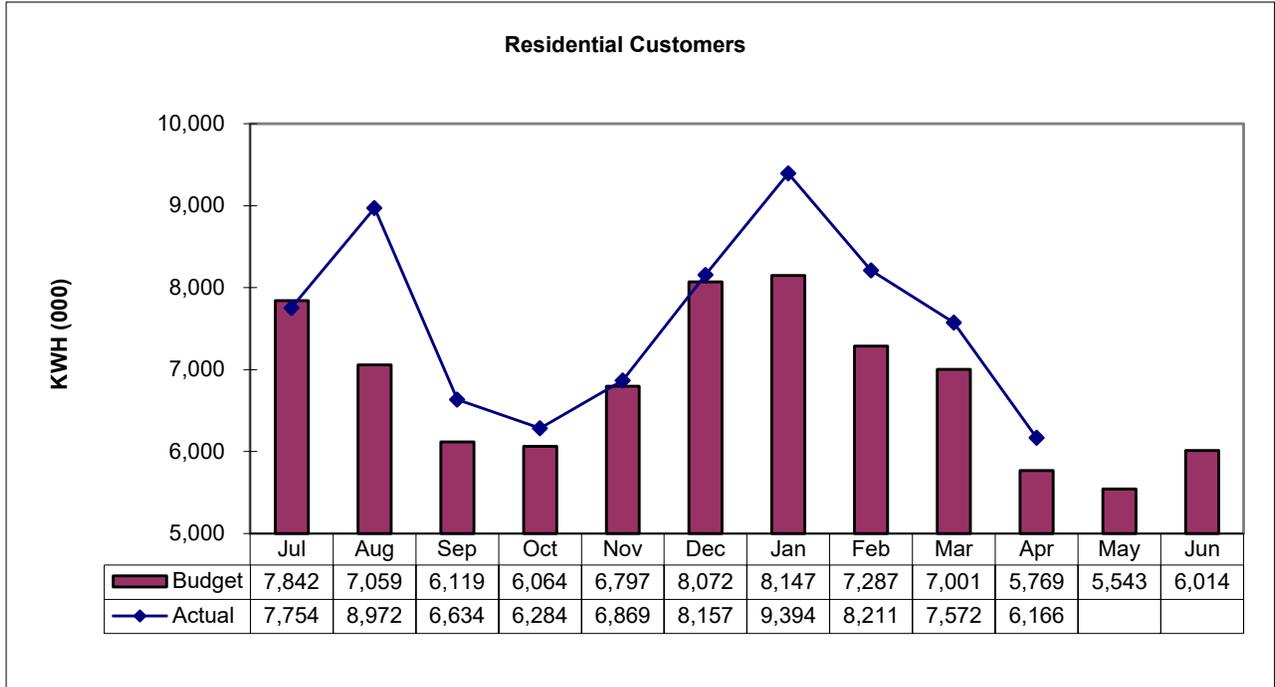


Average Monthly Temperature

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Budget	72	70	63	50	39	27	21	22	32	45	58	67
Actual	70	74	56	56	38	32	14	23	35	46		

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
April - FY 2022

	(\$000)						
	Current Month			Year-to-Date			
	Budget	Actual	Variance	Budget	Actual	Variance	
Expenses:							
Fuel (p. 7)	\$104	\$34	\$70	(1)	\$7,360	\$6,988	\$372 (1)
Purchased Power (p.11)	1,521	1,741	(220)	(2)	12,043	10,850	1,193 (2)
Transmission Fees - ISO	523	558	(35)	(3)	5,580	5,965	(385) (3)
Transmission Fees - Velco	177	134	44	(4)	1,239	546	694 (4)
Transmission Fees - Other	62	99	(37)	(5)	584	769	(185) (5)
Total Expenses	<u>2,388</u>	<u>2,565</u>	<u>(177)</u>		<u>26,806</u>	<u>25,117</u>	<u>1,689</u>
Revenues:							
Renewable Energy Certificates - McNeil	0	0	0		3,030	3,442	412
Renewable Energy Certificates - Wind	0	0	0		2,277	1,987	(290)
Renewable Energy Certificates - Hydro	0	0	0		585	459	(126)
Renewable Energy Certificates - Other	0	0	0		167	122	(45)
Total Revenues	<u>0</u>	<u>0</u>	<u>0</u>		<u>6,058</u>	<u>6,009</u>	<u>(48) (6)</u>
Net Power Supply Costs	<u>\$2,388</u>	<u>\$2,565</u>	<u>(\$177)</u>		<u>\$20,748</u>	<u>\$19,108</u>	<u>\$1,640</u>
Load (MWh)	24,019	24,227	208		271,916	276,051	4,135
\$/MWh	\$99.43	\$105.89	\$6.46		\$76.30	\$69.22	(\$7.09)

Current Month:

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

YTD:

- (1) See detail on page 7.
- (2) See detail on page 11.
- (3) ISO-NE Transmission over Budget due to higher rates.
- (4) VELCO Transmission under Budget due to lower 91 VTA Common charges, including a reduction for the return of accumulated deferred income tax for 2020 and 2021.
- (5) NYPA Transmission (NYISO charges) over Budget.
- (6) REC sales (net of covering NEPOOL Class 1 purchases) expected to come in 6% under Budget due to under budget Wind and Hydro Production.

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

	(\$000)					
	Current Month			Year-to-Date		
	Budget	Actual	Variance	Budget	Actual	Variance
FUEL:						
McNeil:						
Fuel Consumed	8	0	7 (1)	5,134	4,920	213 (1)
Swanton Yard	3	0	3 (1)	455	564	(109)
Train Deliveries	5	0	5 (1)	924	853	71 (1)
Labor & Other Expenses	84	29	55 (2)	755	520	235 (2)
Total McNeil Fuel	<u>99</u>	<u>29</u>	<u>70</u>	<u>7,268</u>	<u>6,857</u>	<u>411</u>
Gas Turbine	5	5	0 (3)	92	131	(39) (3)
Total Fuel	<u>104</u>	<u>34</u>	<u>70</u>	<u>7,360</u>	<u>6,988</u>	<u>372</u>

Current Month:

(1) McNeil produced 0 MWh.

(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.

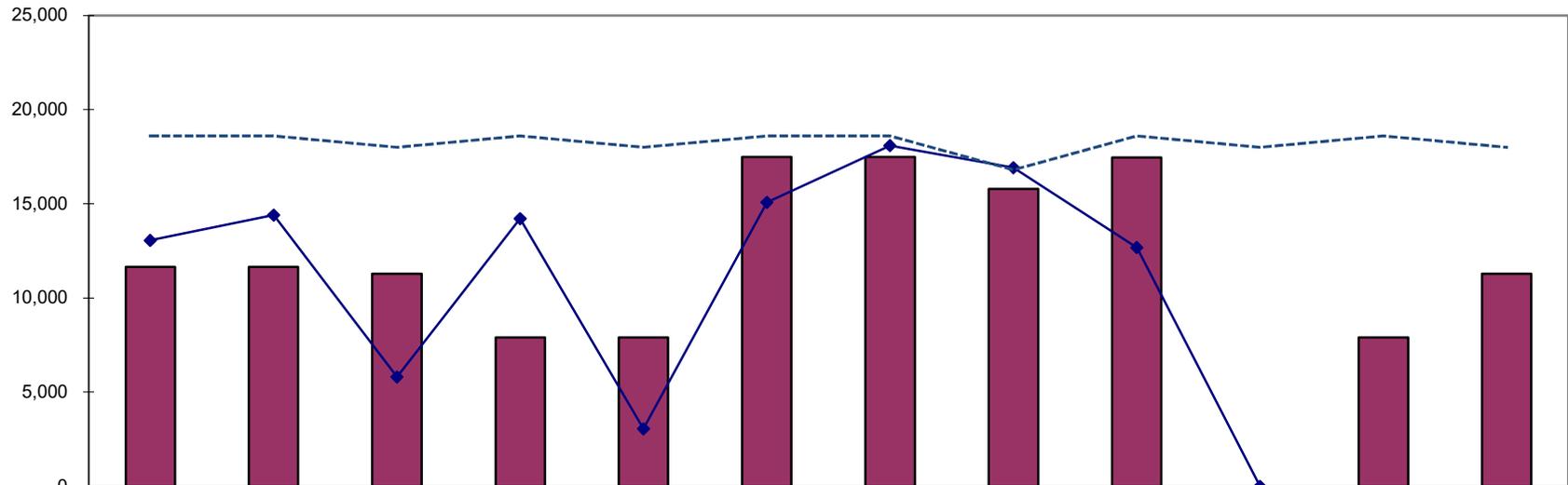
YTD:

(1) McNeil produced 5% under Budget. Woodchip costs (per ton) 1% under Budget. (p. 9)

(2) See Current Month.

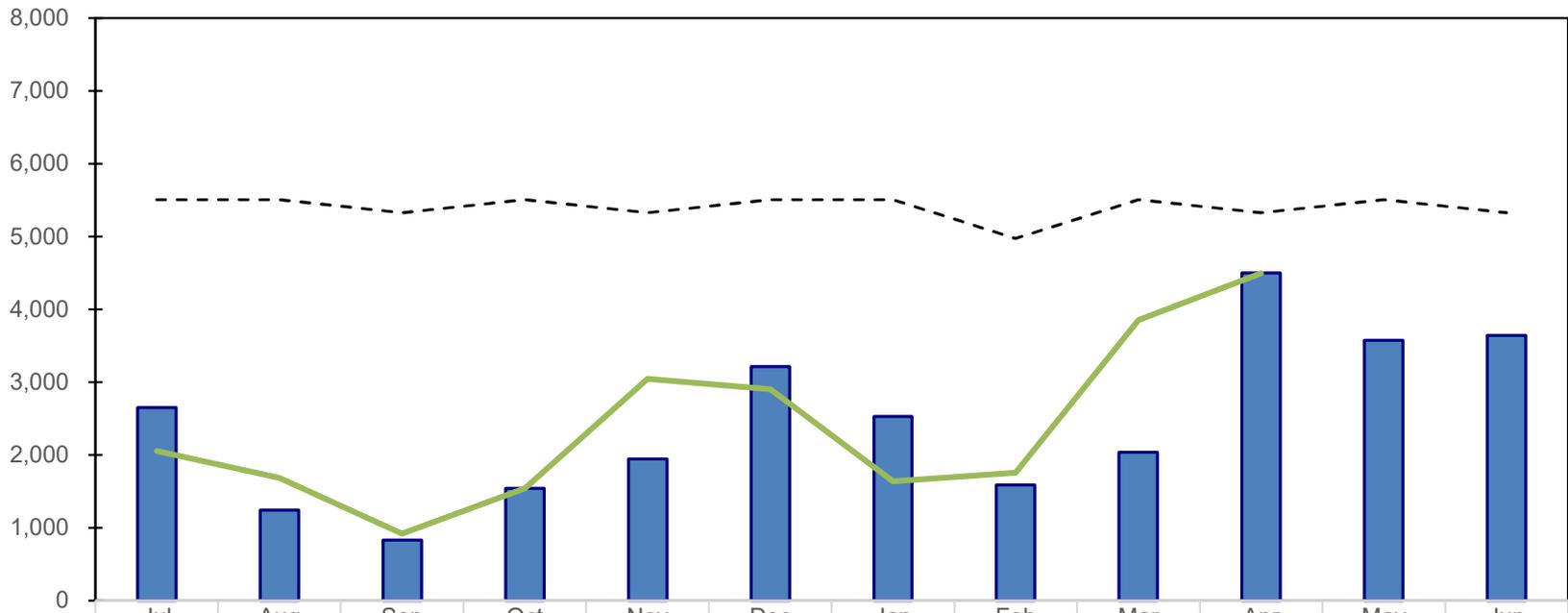
(3) GT produced 427 MWh (40% over Budget).

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

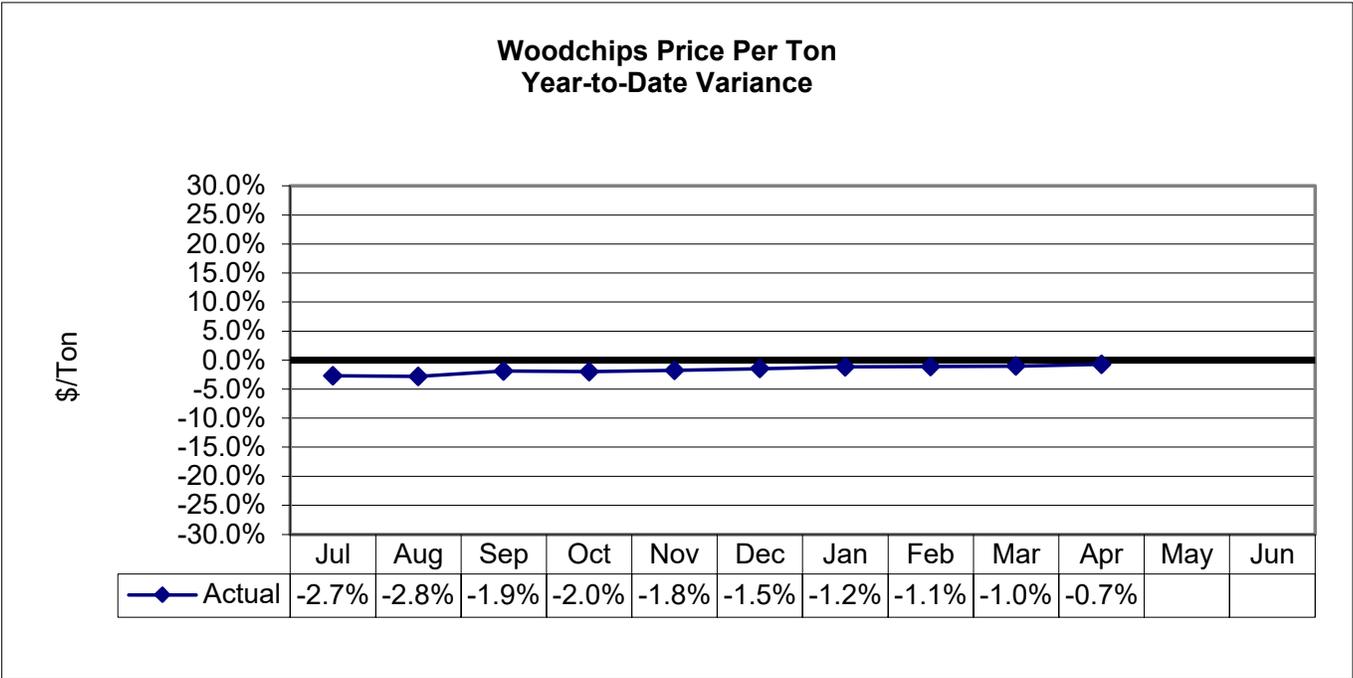
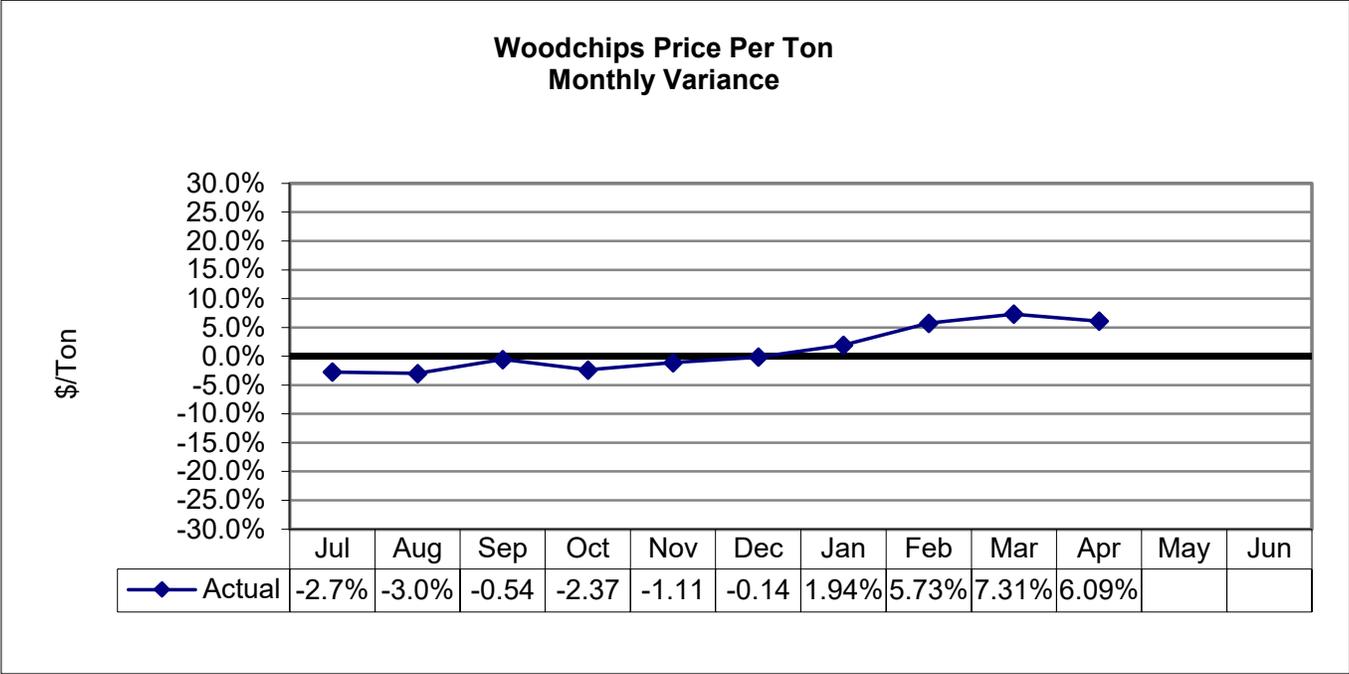


Budget	11,656	11,656	11,280	7,896	7,896	17,484	17,484	15,792	17,461	0	7,896	11,280
Actual	13,047	14,396	5,794	14,209	3,057	15,066	18,083	16,913	12,671	0		
Maximum	18,600	18,600	18,000	18,600	18,000	18,600	18,600	16,800	18,600	18,000	18,600	18,000

**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
April - FY 2022**

	(\$000)					
	Current Month			Year-to-Date		
	Budget	Actual	Variance	Budget	Actual	Variance
<u>PURCHASED POWER:</u>						
Non-Energy (capacity)	102	121	(19)	1,089	1,280	(191)
Energy:						
Georgia Mountain Wind	322	311	11 (1)	2,834	2,607	226 (1)
Hancock Wind	290	203	88 (2)	2,936	2,007	929 (2)
VT Wind	254	317	(63) (3)	2,259	2,318	(59) (3)
Hydro Quebec	237	246	(10) (4)	2,325	2,383	(58) (4)
Great River Hydro	167	167	0	1,671	1,669	2
In City Solar Generators	84	83	1	654	622	33
NYPA	6	7	(1)	61	82	(21)
VEPPI	0	0	0	0	0	0
ISO Exchange	21	245	(224) (5)	(2,336)	(2,664)	327 (5)
Velco Exchange	0	(3)	3	0	(11)	11
Total Energy	<u>1,381</u>	<u>1,575</u>	<u>(194)</u>	<u>10,404</u>	<u>9,014</u>	<u>1,390</u>
Ancillary Charges	(0)	(6)	6	37	(14)	51
Miscellaneous	39	52	(13)	513	570	(57)
Total Purchased Power Expense	<u><u>1,521</u></u>	<u><u>1,741</u></u>	<u><u>(220)</u></u>	<u><u>12,043</u></u>	<u><u>10,850</u></u>	<u><u>1,193</u></u>

Current Month:

- (1) Production 4% under Budget.
- (2) Production 6% over Budget. Rate 34% under Budget due to Financial Adjustment.
- (3) Production 25% over Budget.
- (4) Rate 4% over Budget.
- (5) Energy Prices paid by load more over Budget than those received by generation.

YTD:

- (1) Production 8% under Budget. Lower CY21 production will result in lower REC revenues in FY22. (Fourth turbine back on line 11/18/21)
- (2) Production 16% under Budget. Rate 20% under Budget due to Financial Adjustment. Lower CY21 production will result in lower REC revenues later in FY22.
- (3) Production 3% over Budget. Lower CY21 production will result in lower REC revenues later in FY22.
- (4) Rate 2% over Budget.
- (5) Energy Prices and Winooski One production (8%) over Budget.

Burlington Electric Department Operating and Maintenance Expense by Spending Category FY 2022-April					
Description	Budget	Actual	Variance	% Variance	*
Labor-Regular	6,842,243	6,534,216	308,027	5%	
Labor-Overtime	423,455	473,896	(50,441)	12%	a
Labor-Temporary	6,500	0	6,500	100%	b
Labor-Overhead	2,612,723	2,494,328	118,395	5%	c
Outside Services	2,126,392	1,812,708	313,684	15%	d
DSM (rebates & outside services)	1,645,483	1,610,570	34,913	2%	e
Materials & Supplies	752,320	522,387	229,933	31%	f
Insurance	608,981	571,698	37,283	6%	
A & G Clearing	(697,269)	(343,844)	(353,425)	51%	g
Other - RPS Compliance	561,517	773,905	(212,388)	38%	
Other	2,195,348	1,459,774	735,574	34%	h
Operating and Maintenance Expense	17,077,693	15,909,638	1,168,055	7%	

(a) System Operations is higher than budget \$127,800; offset by areas lower than planned; Distribution (\$40,900), McNeil Plant (\$26,600), Generation (\$9,600) & Customer Care (\$8,200).

(b) Policy & Planning assumed intern positions in July, December & January.

(c) See page 13.

(d) Timing of various items; GT & W1 (\$25,800), McNeil Plant (\$355,000), tree trimming (\$33,000) and REC Broker commission fees (\$62,500). Actual DPS billback expenses for rate case less than projected (\$148,600).

(e) Projects are driven almost entirely by customer decisions. The budget is based on information on specific projects or seasonal variations; otherwise the amount is spread evenly across the year.

(f) Timing; McNeil Plant (\$105,700), Distribution (\$48,800) & Safety (\$17,800).

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

(h) Timing: various areas are less than budget including; Training/Education (\$80,600), Transportation Clearing (\$57,700), Building Clearing, (\$53,700), Dues & Fees (\$36,100), Utilities (\$38,800) and Uncollectible Accounts (\$90,500).

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

Labor - Overhead	(000's)			%
	Budget	Actual	Variance	
Pension	\$1,266	\$1,172	\$94	7% (a)
Medical Insurance	1,252	1,215	37	3% (b)
Social Security Taxes	785	704	81	10% (a)
Workers Compensation Ins.	286	274	12	4% (b)
Dental Insurance	77	70	7	9% (b)
Life Insurance	18	16	2	11% (b)
	\$3,684	\$3,451	\$234	6%

Rates Table:	Budget
<i>Pension</i>	14.08%
<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 - April (\$000)

	Ref	Current Month			Year - To - Date		
		Budget	Actual	Variance	Budget	Actual	Variance
Operating Revenues							
Sales to Customers	p.3	3,450	3,256	(194)	40,716	40,658	(58)
Other Revenues		299	317	18 (a)	3,108	2,570	(538) (a)
Total Operating Revenues		3,750	3,573	(176)	43,823	43,228	(595)
Net Power Supply							
	p.6	2,388	2,565	(177)	20,748	19,108	1,640
Operating Expenses							
Operating and Maintenance	p.12	1,958	2,068	(110)	17,078	15,910	1,168
Depreciation & Amortization		501	503	(3)	5,006	5,090	(84)
Gain/Loss on Disp of Plant		0	0	0	291	233	58
Revenue Taxes		37	37	0	466	461	4
Property Taxes Winooski One		42	41	1	421	412	9
Payment In Lieu of Taxes		239	193	46 (b)	2,392	1,893	499 (b)
Total Operating Expenses		2,776	2,843	(66)	25,654	24,000	1,654
Other Income and Deductions							
Interest/Investment Income		3	8	5	44	56	12
Dividends		372	360	(12)	3,649	3,609	(41)
Customer Contributions/Grant Proceeds		122	8	(115) (c)	1,943	195	(1,748) (c)
Other		10	(23)	(34)	42	(56)	(98)
Total Other Income & Deductions		508	353	(155)	5,679	3,803	(1,876)
Interest Expense							
		201	189	12	1,995	1,920	75
Net Income							
		(1,108)	(1,671)	(563)	1,105	2,003	898

Current Month:

- (a) Energy Efficiency Program cost reimbursement was higher than planned, \$26,300.
 (b) Actual includes city reappraisal.
 (c) Budget assumed customer contributions for Champlain Pkwy, \$121,500. Actual includes grant proceeds, \$7,800.

Year - To - Date:

- (a) Energy Efficiency Program cost reimbursement was less than planned, \$461,200.
 (b) See current month.
 (c) Budget assumed \$750,000 of ARPA funds in July and customer contributions for Shelburne Road roundabout relocation, \$616,700, UVM LCOM project, \$116,200, and Champlain Pkwy, \$455,700. Actual includes other billable and grant proceeds of \$135,300.

**Burlington Electric Department
Capital Projects - FY22**

	\$000			
	Full Year Budget	Budget	April Actual	Variance
McNeil (BED 50% Share)				
ESP Mechanical Field Rebuild	225	225	46	179
Routine Station Improvements	107	86	3	83
Backup Boiler Feed Pump/Insurance	103	103	132	(29)
Turbine Control System Upgrade/Insurance	37	28	0	28
Augers Replaced	30	30		30
Elevator Geared Equipment & Controls	25	25	0	25
Turbine Extraction Valve Actuators	20	20		20
Belt Fire Suppression/Insurance	17	17		17
Cooling Tower Fill Drift Eliminators	15			0
Disc Screen	15	15	2	13
Chemical Feed Pump Replacement/Upgrade	15	15	10	5
ESP Wire Replacement	13	13	1	13
Safety Valve Replacements	12	12		12
GSU Transformer	11	11		11
Analyzer Upgrades for Chemical Treatment	9	9	11	(2)
Char Ash Conveyor	10	10		10
Station Tools & Tool Boxes	7	7		7
DC Lube Oil Pump Contractor Upgrade/Insurance			2	(2)
Other	24	24	5	18 (a)
Total McNeil Plant	697	651	211	440
 <i>(a) Budget includes energy efficiency improvements, farmhouse repair, probe ladder, perimeter fence upgrade, radio upgrades, rigging equipment and office equipment. Actual includes computer replacement and farmhouse repair.</i>				
Hydro Production	221	218	13	206 (a)
 <i>(a) Budget assumed Unit #3 bearing replacement, \$125,000. Project will not happen in this FY.</i>				
Gas Turbine	98	98	17	81
Total Production Plant	1,017	968	241	727
 Other				
Direct Current Fast Charger (Level 3)	85	77		77
Packetized Energy	52	47		47
Public Level 2 EV Charge	33	30		30
Policy & Planning Research & Dev	21	19		19
Total Other	192	173	0	173
 Transmission Plant				
VT Transco Investment	1,150	1,150		1,150 (a)
Total Transmission Plant	1,150	1,150	0	1,150

(a) Deferred.

**Burlington Electric Department
Capital Projects - FY22**

	\$000			
	Full Year Budget	Budget	April Actual	Variance
Distribution Plant-General				
Aerial				
Scarff Avenue Rebuild	701	701	635	66
Appletree Point Rebuild	258	258	17	242
1L4 P3149 to P3169 Reconductor	162	162	86	76 (a)
1L4 P3132 to P3149 Reconductor	140	140	95	46 (a)
Replace Condemned Poles	118	100	4	97 (b)
Replace Recloser 252R	48	48	0	47 (c)
227S Automation	47	47	37	10
Ferguson Ave, Wells St			39	(39) (d)
Rebuild 3L4 Long Spans			32	(32) (d)
Rebuild 1L4 Long Spans PH2			56	(56) (e)
3L1 Circ P396 to P404			6	(6)
3L1 Circ-Neu P156 to P1563			57	(57)
Total Aerial	1,474	1,456	1,063	393

- (a) Final work completed in April under budget.
 (b) Deferring inspection to future year.
 (c) Revenue bond project, changed to 234R-North Avenue.
 (d) FY21 project that was delayed. Work is now complete.
 (e) FY21 project that was delayed. Estimated total is \$36K.

Underground				
Replace Switch (756,757,758,730-Battery/Pearl St)	204	61	8	53 (a)
Replace Switch (303,307,308,309-Main/S Prospect)	137	68	3	65 (a)
Replace UG Switch (821,401,727,349,233)			53	(53) (b)
Replace UG Switch (731,736,760,761)			16	(16) (b)
Shelburne St-Rep Sec p323-328			19	(19) (c)
Starr Farm Beach-Conv 2 ph			13	(13) (c)
Replace 234R - North Avenue			46	(46) (d)
Total Underground	341	130	158	(28)

- (a) Switch delivery delayed until FY23.
 (b) Additional work from FY21 project due to issues with new switch.
 (c) New project added. Work is complete.
 (d) Revenue bond project, changed from 252R. Project is complete.

Customer Driven/City Projects				
Champlain Parkway C6	644	483		483 (a)
Champlain Parkway C6 (CAFC)	(608)	(456)		(456) (a)
UVM LCOM Project (Larner College of Medicine)	391	391	381	10
UVM LCOM Project (CAFC)	(116)	(116)		(116)
UVM Athletic Facility	101	101	17	84
Shelburne St Roundabout Relocation	630	630	255	375
Shelburne St Roundabout Relocation (CAFC)	(617)	(617)		(617)
Total Underground	425	416	653	(238)

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

**Burlington Electric Department
Capital Projects - FY22**

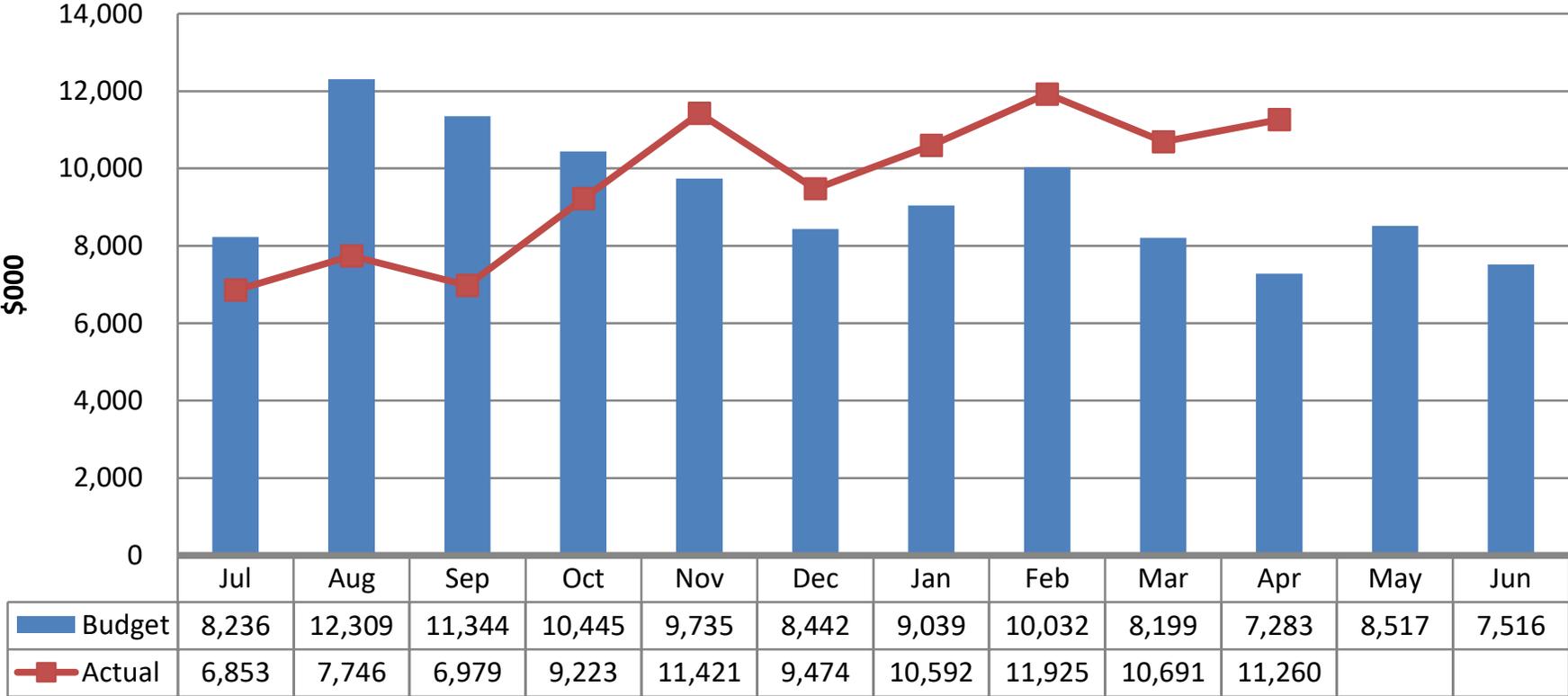
	\$000			
	Full Year Budget	Budget	April Actual	Variance
Other				
SCADA Networking Upgrade/Firewall Replacement	296	296	143	152
Distribution Transformers	194	194	339	(145)
SCADA Network Switches Replacement	98	78		78
Field Device Network Upgrades	67	67	16	50
Communication Equipment Emergency Repair	27	27	2	25
SCADA Servers Virtualization	0		6	(6)
Other			25	(25)
Total Other	682	662	532	130
Total Distribution Plant-General	2,922	2,664	2,406	258
Distribution Plant - Blanket				
Lighting	159	128	182	(55)
Lighting (Rebate)	(6)	(5)		(5)
Underground	194	151	179	(28)
Underground (CAFC)			(42)	42
Aerial	106	88	70	18
Aerial (CAFC)			(17)	17
Meters	125	121	40	80
Gas Detectors	4	4	4	(0)
Tools & Equipment - Distribution/Technicians	30	25	22	3
Substation Maintenance	16	16		16
Replace Corroded Vista CT's/PT's	20	19	5	14
Substation-Temperature Alarms	8	8		8
Total Distribution Plant - Blanket	655	554	444	110
Total Distribution Plant	3,577	3,218	2,850	368

**Burlington Electric Department
Capital Projects - FY22**

	\$000			
	Full Year Budget	Budget	April Actual	Variance
General Plant				
Computer Equipment/Software	1,806	1,486	773	713 (a)
Vehicle Replacement	165	83	0	83 (b)
Buildings & Grounds	55	55	33	22 (c)
Other	8	8	0	8 (d)
Total General Plant	<u>2,034</u>	<u>1,631</u>	<u>806</u>	<u>826</u>
<i>(a) Budget includes IT Forward, \$1,242,600, Lake Street Network switch replacement, \$37,000, OpenWay upgrade, \$24,600 and Pole Mount Routers, \$135,100. Actual includes IT Forward, \$668,300, Shared Data Center, \$9,400 and Pole Mount Routers, \$13,700.</i>				
<i>(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 FY24.</i>				
<i>(c) Budget includes fence for solar array, \$19,000, Dispatch AC, \$14,000, security cameras, \$13,000, sign replacements, \$5,000 and ID printer, \$4,000. Actual includes dispatch AC relocation, new heat pump at GT for dispatch, ID printer replacement and chair for system operations. Fence for solar array has been delayed to FY23.</i>				
<i>(d) Budget includes training yard materials & AED purchase for Pine Street.</i>				
Sub-Total Plant	<u>\$7,970</u>	<u>\$7,140</u>	<u>\$3,897</u>	<u>\$3,243</u>
Add: CAFC* reclass to "Other Income"	1,346	1,193	59	1,134
Total Plant	<u><u>\$9,316</u></u>	<u><u>\$8,333</u></u>	<u><u>\$3,957</u></u>	<u><u>\$4,376</u></u>

* Customer Advances (Contributions) for Construction.

Operating Cash - FY 2022 Monthly Ending Balance



BURLINGTON ELECTRIC DEPARTMENT 202~~21~~–2~~32~~ STRATEGIC DIRECTION

MISSION

To serve the energy needs of our customers in a safe, reliable, affordable, sustainable, and socially responsible manner.

VALUES

Safety, Reliability, Community, Innovation

2030 VISION

Make Burlington a Net Zero Energy city by eliminating fossil fuel usage across the electric, thermal, and ground transportation sectors by strategically electrifying, managing demand, realizing efficiency gains, and expanding local renewable generation while increasing system resilience.

STRATEGIC OBJECTIVES

Engage Customers and Community

1. Focus on customer first-call resolution to provide exceptional customer care
2. Better educate and engage customers on our Net Zero Energy vision through all communications channels, with a focus on web and social media
3. Ensure all programs are equitable and accessible, with a priority given to low-to-moderate income, rental, Black, Indigenous, and People of Color (BIPOC), immigrant, and refugee populations
4. Evolve energy efficiency programs to drive deeper greenhouse gas emissions reductions, complement strategic electrification efforts, help manage peak demand, and improve community resilience and environmental health

5. Proactively seek customer input, including through new community ambassador program, and listen to and hear their needs and incorporate their input into program design
6. Provide website tools so that customers can evaluate both cost and carbon savings from heat pump technology installations

5.

Strengthen Reliability

1. Maintain five-year Distribution System and Generation construction plans to accommodate potential load increases due to the Net Zero Energy goals, and design and construct projects to continue to improve safety, reliability, and efficiency
2. Continue to follow maintenance plans for McNeil Generating Station, Winooski One Hydro, Gas Turbine, and the Distribution System
3. Take steps to ensure reliable operations through staff succession planning
4. Ensure consistent fuel supply availability at McNeil based on annual operational strategy and procurement procedures
5. Implement Outage Management System (OMS) and grid analytics to improve response to system outages, system reliability, and efficiency

Invest in our People, Processes, and Technology

1. Attract, develop, and retain a diverse workforce with the knowledge, skills, and ability to support BED's Net Zero vision and strategic objectives
2. Develop a culture of integrity, safety, inclusion, innovation, teamwork, and continuous learning and improvement
3. Continually improve internal processes to design and deliver innovative programs and services, maximize operational efficiency and effectiveness, and optimize use of data to inform decision-making
4. Plan and invest in the technology infrastructure necessary to support BED's mission, vision, and strategic priorities, including multi-year replacement of core business systems
5. Implement remote work flexibility, as permitted under City policy, to lead by example in reducing vehicle miles traveled and emissions

Innovate to Reach Net Zero Energy

1. Advance district energy, battery storage projects, and local renewable energy production including customer-owned and community-based projects
2. Improve and expand automated demand response capability, with focus on EV charging and thermal, and implement appropriate end-use technologies to manage loads
3. Advance additional dynamic and creative rates to achieve Net Zero Energy goal
4. Continue to track and report to the community on progress toward the Net Zero Energy Roadmap goal
5. Provide clean and affordable transportation fuel through renewable electricity, and invest in and encourage use of the necessary infrastructure to serve customers across all modes of transportation, including electric bikes, electric vehicles, and electric transit buses
6. Actively participate in City policy processes aimed at reducing greenhouse gas emissions in the ground transportation and building sectors

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7. Build and maximize use of partnerships that provide unique value and opportunities to make progress toward Net Zero Energy at a more rapid pace and greater scale
8. Maintain and invest in quality facilities and use them to pilot and showcase new technologies that advance Net Zero Energy

Manage Budget and Risks Responsibly

1. Create financially responsible and sustainable budgets that balance the need for stable rates, investment in core infrastructure, and strong credit rating factors
2. Develop ~~five-year~~ and maintain a sustainable debt financing plan for Net Zero Energy to support electrification while mitigating upward rate pressure
3. Ensure timely and diligent compliance with risk, safety, environmental, and other legal and regulatory standards
4. Efficiently and effectively manage procurement of goods and services
5. ~~Enhance cybersecurity capabilities~~ Mitigate cybersecurity risk through awareness, assessment, policy, and best practices