

NET ZERO ENERGY

BURLINGTON VERMONT



Burlington Electric Department (BED)

- Burlington's municipal electric utility
 - Public Power since 1905
 - 118 employees, including the McNeil Generating Station
 - Third-largest electric utility in Vermont
- 21,000+ customers
 - 17,282 residential / 3,983 commercial and industrial
 - 5500-6,000 residential accounts turn over each year
- Electricity facts:
 - Summer Peak: ~65 MW / Annual energy Use: ~330,000 MWH
 - McNeil is the largest energy producer in Vermont with Vermont Yankee retirement
 - 100% of power from renewable generation as of 2014
 - No rate increase since 2009-2021; first rate change in FY22 due to pandemic- 7.5%; FY23 rate change- 3.95%





CY2022 BED Tier 3 and Net Zero Energy Programs

Tier 3 Budget for FY23 = \$2.1 million

EEU and Act 151 Budget for FY23 = \$1.55 million

- ❑ **EV rebate** of \$2,300, or \$3,000 for low/moderate income (LMI) customers up to 80% area median income
- ❑ **PHEV rebate** of \$2,000, or \$2,300 for LMI customers
- ❑ **Pre-Owned EV/PHEV rebate** - \$1,300, plus \$200 for LMI customers
- ❑ **Incentive for residential charger** up to \$900 for EV or \$700 for PHEV
- ❑ **EV finance partnership with three credit unions**
- ❑ **EV Workplace Charging Station Incentive** of up to \$10,000
- ❑ **EV Public Chargers** – 16 stations and 29 ports
- ❑ **E-Motorcycle** - \$500 rebate
- ❑ **E-Bus incentive** – two buses delivered in 2020
- ❑ **Electric Induction Cooking** – up to \$200 rebate
- ❑ **E-Bike rebate** of \$200, 0% loans for low-income customers
- ❑ **E-Mower** rebate of \$100-\$300 residential and \$3,500 commercial
- ❑ **Custom Programs** –VRF, geothermal, etc.
- ❑ **Cold-Climate Heat Pump rebate** – up to \$3,350 including \$400 LMI rebate
- ❑ **Central-Ducted Heat Pump rebate/discount** – up to \$6,250, plus \$400 per condenser for LMI customers
- ❑ **Air-to-Water Heat Pump rebate** – up to \$12,400, including \$400 for LMI customers
- ❑ **Heat Pump Water Heater rebate** – up to \$1,000, plus \$200 additional for LMI customers
- ❑ **Electric Forklift rebate** – up to \$6,500
- ❑ **Electric Leaf Blower rebates** - \$50 residential, \$150 commercial
- ❑ **Residential Loan Program**– as low as 0% for income-qualified customers for heat pumps, water heaters, Energy Star appliances
- ❑ **0% Commercial Loan Program**– on-bill finance for efficiency, heating and cooling, ventilation



BED Transportation Sector Energy Innovation Projects Currently Underway

- Working with CarShare Vermont to expand access to EVs
- Act 151 Incentive Programs
- Expand EV off-peak charging rate
- Revenue bond investment in modern fast-chargers for Burlington
- Continued participation in DeltaClima business accelerator
- Electric bucket truck coming in FY24
- IT Forward upgrades



Photo credit Drive Electric VT





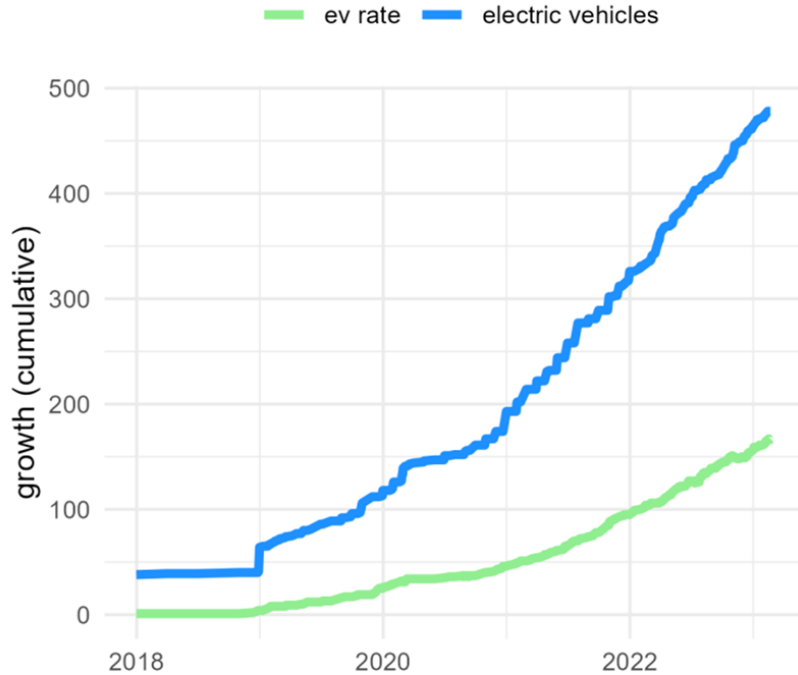
Burlington EV Information based on Tier 3 incentives

- ❑ 470 EV/PHEV rebates since May 2017 (DMV 2021 data, 583)
 - ❑ 85 low/moderate income enhanced rebates
 - ❑ 5 finance loans through credit union partners
 - ❑ 162 customers signed up for EV rate (as of Jan. 2020)
- ❑ 116 home Level 2 EV charging station rebates

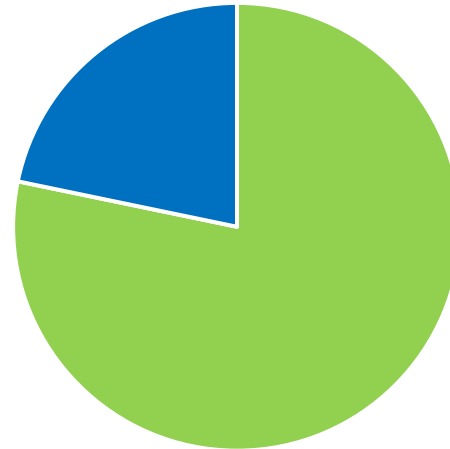




EV and Rate Growth



72% of BED's EV Owners are not on EV Rate





EV Rate Investment and Payback for Customer

Average annual EV charging credit: \$148 (based on EVSE charging)

EVSE	750	750
Install	500	1500
EVSE Rebate	(900)	(900)
Total Cost	<u>350</u>	<u>1,350</u>
Simple Payback (years)	2.7	9.1
Simple Payback w/o rebate (years)	8.5	15.2

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BURLINGTON VERMONT



See back for customer comment section and explanation of terms

Account Name:
Service Address:
Thank you for your payment(s): \$109.73

Bill Date: 02/14/23



Meter Information

Reading Period: 01/10/23 to 02/10/23 Days: 31

KILOWATT HOURS

Units
563.00

Rate	RS
Customer ID	
Location ID	
Please Pay	\$90.93

Summary of Charges

CUSTOMER CHARGE									
INITIAL BLOCK	100.00	X	\$0.116173	=	\$11.62				
ENERGY CHARGE	463.00	X	\$0.158815	=	\$73.53				
ENERGY EFF. CHG.-KWH	563.00	X	\$0.006660	=	\$3.75				
RATE INCREASE 3.95%					\$3.71				
Total cost for electricity used					\$104.44				
					\$2.54				
					-\$13.05				
					\$90.93				
					\$0.00				
					\$90.93				

Questions?
Call us at: (802) 865-7300
Hours: Mon. - Fri.,
8am - 5pm
www.burlingtonelectric.com

IMPORTANT MESSAGES

STAY WARMER & SAVE MONEY BY WEATHERIZING AT LITTLE OR NO UP-FRONT COST.
The new Weatherization Department Assistance Program (WDAP) allows homeowners and renters to finance qualifying weatherization projects like insulation and air sealing, as well as heat pumps and advanced smart heating systems, with equipment through a monthly charge on your BED bill. Most program funding will be available to help low- and moderate-income households. Please visit burlingtonvt.com/wdaprogram to learn more.

GO ELECTRIC AND SAVE! Get rebates on heat pumps, EVs, and more along the path to Net Zero Energy. Please visit burlingtonvt.com/energy to learn more.

Thank you!

ENERGY USE INFORMATION

This Month			
KWH used	KWH per Day	Days	
563	18.16	31	
Same month last year			
KWH used	KWH per Day	Days	
400	12.90	31	

Your average daily cost for electricity this month: \$3.27

Please return this portion with your payment - Do not staple or fold
Make checks payable to: Burlington Electric Department



Burlington Electric Department
585 Pine Street
Burlington, VT 05401-4891

Check if you have comments on back

Customer ID: Location ID:
Service Address:

BILLING SUMMARY			Bill Date: 02/14/23
Current bill	Previous balance	New balance	
\$90.93	\$0.00	\$90.93	
Please Pay by 03/13/23	\$90.93	Amount Enclosed	\$

SEND REMITTANCE TO:
BURLINGTON ELECTRIC DEPARTMENT
PO BOX 5119
BURLINGTON VT 05402-5119

Direct customer service: (802)865-7300 Hours: Monday-Friday 8 am- 4:30 pm (except holidays)

Lobby open 8:30 am - 4:30 pm

The following information will help you understand your electric bill:

Customer Charge: This includes the monthly cost of meter reading, maintaining customer records, billing and providing other customer services.
City Franchise Fee: Fee charged to BED by city ordinance for use of streets and rights-of-way. This fee is not part of BED rates and is charged to BED customers based on all charges (except for the initial block of power for residential customers and the sales tax portion for commercial customers). Nonpayment of the city franchise fee is not subject to BED disconnect procedures.
Kilowatt Hours (KWh): An electric meter measures the electricity used in kilowatt hours. If a 100-watt light bulb is used for 10 hours, the electric meter will register 1 KWh (100 watts x 10 hours = 1000 watt hours or 1 kilowatt hour).
Energy Efficiency Charge: This supports BED's energy efficiency services. This charge is added to the bills of all Vermont ratepayers, and the services are available to all customers. Please call Customer Service for more information.

Residential Bills (RS, RT):

Initial Block: BED provides residential customers a block of 100 KWh at a lower cost each month. The electricity is listed separately on the bill.

Commercial and Industrial Bills (LG, LT, PS, SG, ST):

Demand: Large non-residential users of electricity are billed for their demand for electricity along with kilowatt hour (KWh) consumption. Demand is measured in kilowatts (KW). The demand is the highest amount of electricity required at any one given time. BED must have sufficient electricity and the proper equipment available (such as generating facilities, distribution lines and transformers) to meet the customer's maximum demand or load requirements. A customer's demand charge helps to cover these costs.
Demand Ratchet Charge: Fifty percent (50%) of the highest fifteen-minute peak that occurred during any of the most recent Summer Peak months (June through September) that fall within the previous 11 months. A customer's billed demand is either the actual measured demand or the ratchet demand—which ever is higher.
Vermont Sales Tax: Vermont requires that non-residential customers pay sales tax on their entire bill (exclusive of City Franchise Fee) unless they have received an exemption from the state.

Rate Codes:

LG Large General Services	PS Primary Service	SG Small General Service
LT Leased Lights	RS Residential Service	ST Small General Service—Time of Use
LL Large General Service—Time of Use	RT Residential Service—Time of Use	

If you have questions about your bill or a problem with your service, please call us at (802)865-7300. If we are unable to resolve your problem, you may also call the Consumer Affairs Division of the Vermont Department of Public Service at 1-800-622-4498.

In case of electrical emergency, call (802)865-7300, 24 hours a day.

Customer Comments (please attach a note if you need more room):

I would like more information on:

- BED's energy-saving programs
 Rate information
- Direct debit
 Budget billing
 Understanding my bill
- E-Bills
 Community assistance programs
 Other

Name: _____ Address: _____ Phone: _____

Convenient payment locations (please do not send or deposit cash into any drop box):

Burlington Electric Department (585 Pine Street) City Hall (Church Street entrance) TD Bank (Burlington Area Locations Only)



Current Obstacles to EV Rate Participation

- High cost of Level 2 EVSE purchase and installation with several-year payback period
- Ease of charging with Level 1 EVSE
- Renters' options for participation limited, 60% of BED customers rent homes
- Limitation on charging times of day with current program technology



Adding an average \$150 per year by a per kWh fee to utility bills would completely eliminate the ~\$148 annual financial incentive to join and stay on the EV rate

Current Obstacles Weigh Against EV Rate Incentives

- ~\$0.70 per gallon equivalent
- Providing a valuable public service through participation in peak management program that provides cost savings for all ratepayers



Key Considerations for Mileage-Based User Fee

Feasibility and Effectiveness

MBUF

- Captures every VT EV owner using existing annual mileage data collection process

Per kWh fee

- Captures only one of every four EV owners in BED, at most
- The fee is easily avoidable, even by EV rate participants

Equity

MBUF

- Every EV owner pays their fair share, ~\$12 per month

Per kWh fee

- EV owners who voluntarily invest in Level 2 EVSE will be penalized. Will need to pay 4x their share, or ~\$48 per month, to cover non-EV rate EV owners' share

Climate Requirements

MBUF

- Will not impact the utilities' ability to reliably and cost-effectively serve electrification required to meet climate requirements

Per kWh fee

- Will deter voluntary customer participation in load management, which serves electrification with cost savings for all