

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
- 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
 - Third largest electric utility in Vermont
 - 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; statewide average retail price of electricity has increased approximately 21% during that time





BED Core Tier 3 and Net Zero Energy Programs – as a regulated utility BED invests in customer incentives and programs to reduce fossil fuel use under Tier 3 of Vermont’s Renewable Energy Standard. Many strategic electrification incentives are now bolstered by our Green Stimulus which continues in 2021

(www.burlingtonelectric.com/greenstimulus).

- ❑ **EV rebate** of \$1,800, or \$2,400 for low/moderate income customers
- ❑ **PHEV rebate** of \$1,500, or \$1,800 for low/moderate income customers
- ❑ **Pre-Owned EV rebate** - \$800
- ❑ **Tier 3 incentive for residential charger \$400**– and charge off-peak for equivalent of 60 cents a gallon of gas
- ❑ **EV finance partnership with three credit unions**
- ❑ **EV Workplace Charging Station Incentive** of \$1,000
- ❑ **EV Public Chargers** – 16 stations and 29 ports
- ❑ **Defeat the Peak** – community peak reduction program
- ❑ **E-Bus incentive** – two buses delivered in 2020
- ❑ **Electric Induction Cooking** – up to \$150 rebate
- ❑ **E-Bike rebate** of \$200, 0% loans for low-income customers
- ❑ **E-Mower** rebate of \$100 residential and \$3,500 commercial
- ❑ **Custom Programs** –VRF, geothermal, etc.
- ❑ **Cold-Climate Heat Pump rebate** – up to \$3,350 including \$400 low/moderate income customer rebate
- ❑ **Central-Ducted Heat Pump rebate/discount** – up to \$8,250, plus \$500 for low/moderate income customers
- ❑ **Air-to-Water Heat Pump rebate** – up to \$12,500, including \$500 for low/moderate income customers
- ❑ **Heat Pump Water Heater rebate** – up to \$600, plus \$200 additional for low/moderate income customers
- ❑ **Electric Forklift rebate** – up to \$6,500
- ❑ **Electric Leaf Blower rebates** - \$40 residential, \$200 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
- 14 EVMatch chargers at rental and multi-family buildings across Burlington
- Act 151 Incentive Programs
- Expand EV off-peak charging rate
- Exploration of modern fast-chargers for Burlington
- Continued participation in DeltaClima business accelerator
- Electric bucket truck coming in FY22
- IT Forward upgrades
- 2 All Electric Buses in operation around Burlington

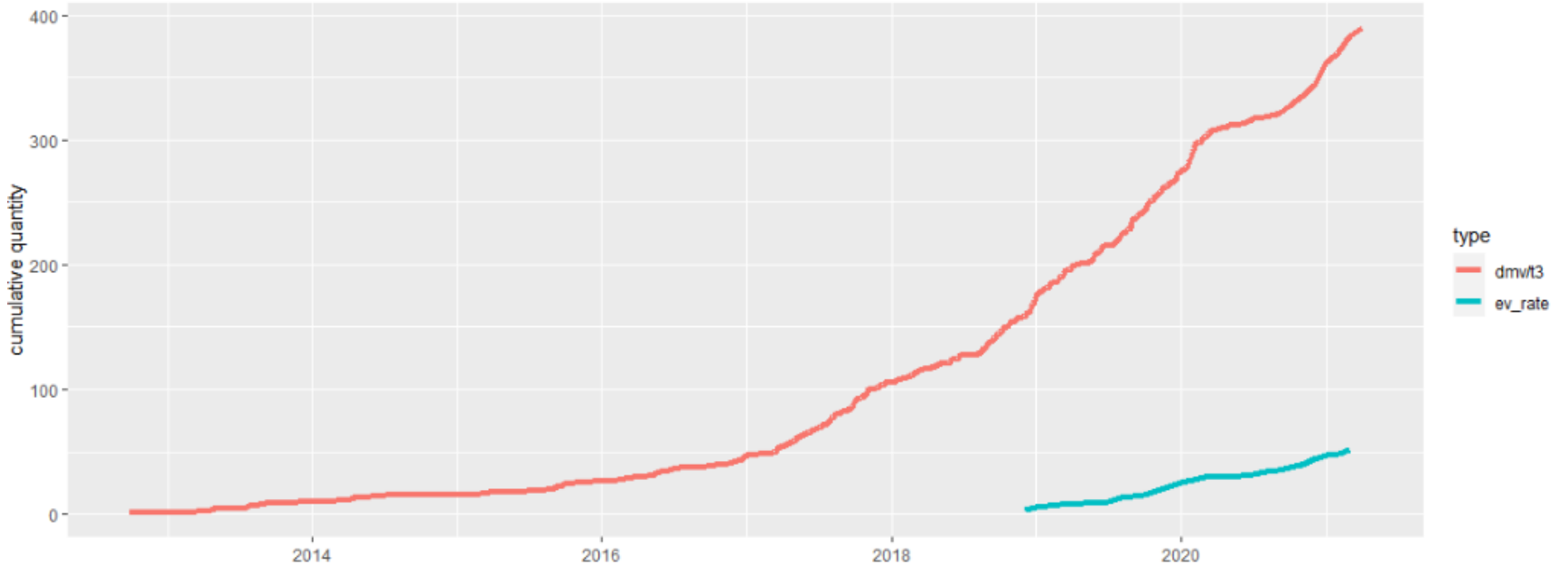


Photo credit Drive Electric VT





Cumulative Quantity of EVs in Burlington and on the EV Rate





EV Rate Investment and Payback for Customer

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

	Low Case	High Case
EVSE	600	600
Installation	500	1,200
EVSE Rebate	(400)	(400)
Total Cost	700	1,400
Simple Payback (years)	4.7	9.4
Simple Payback w/o EVSE rebate (years)	7.4	12.1



Key Considerations Related to Electric Vehicles and EV Rates Legislation – EV Rates

H. 433 ([H.433~Anthea Dexter-Cooper~As Passed By House~3-31-2021 - Copy.pdf \(vermont.gov\)](#))

Sec. 21 Exemption language –

(d) Electric distribution utilities with PEV rates approved by the Public Utility Commission prior to July 1, 2021 currently implemented as tariffs by those electric distribution utilities are exempt from subsection (b) of this section for the relevant rate classes, market segments, or customer segments in which the PEV rates are offered.

BED proposed addition -

(e) Modifications, expansions, or updates to existing electric distribution utility PEV rates approved by the Public Utility Commission prior to July 1, 2021, currently implemented as tariffs by those electric distribution utilities are exempt from this section.



Key Considerations Related to Electric Vehicles and EV Rates Legislation – Charging Fees

- ❑ EV deployment, while increasing, is not at pace of adoption needed to address transportation sector greenhouse gas emissions. In Burlington we have 390 EVs and PHEVs registered as of March 2021, out of a total of approximately 22,742 vehicles in Burlington. That is just 1.7%.
- ❑ BED would be concerned about fairness and implementation of any per kWh fees assessed on non-public charging at this time. 13% of our current EV drivers in Burlington are signed up for our residential EV charging rate. Those customers are helping by charging off-peak, but they would be the only customers we could assess a per kWh fee on. Further, those customers are already looking at a 5 - 12 year payback on the purchase and installation of a smart level 2 charger, and additional fees could make that payback even longer.
- ❑ Fee avoidance would be extraordinarily high, as other customers could avoid the per kWh fee, either using a level 2 charger not signed up for our rate, or any level 1 plug.
- ❑ A better approach to examine is looking at a modest per kWh fee on public tariffed charging stations, combined with a fair annual fee on vehicle registrations for PHEV and EV drivers.