

NET ZERO ENERGY

BURLINGTON VERMONT



About Burlington Electric Department (BED)

Burlington's municipal electric utility

- Public power since 1905
- 123 employees, including the McNeil Generating Station; 86 are IBEW members
- Third-largest electric utility in Vermont
- Energy Efficiency Utility (EEU) for Burlington

21,800+ customers

- 17,800 residential, 4,000 commercial and industrial
- 5,500-6,000 residential accounts turn over each year

Electricity facts:

- Summer peak: ~65 MW; annual energy use: ~330,000 MWH
- 100% of power from renewable generation as of 2014





2030 Vision: Make Burlington a Net Zero Energy city by eliminating fossil fuel usage across electric, thermal, and ground transportation sectors.

- The City Council adopted the Net Zero Roadmap in September 2019.
- Burlington's Net Zero goal is the most ambitious local climate change plan in the nation that BED is aware of, recognized by the Smart Electric Power Alliance as *the "first US Net-Zero 2030 plan."*
- All Departments of the City play a role in supporting implementation.
- Synapse Energy Economics updates the Roadmap progress data, drawn from BED, VGS, DMV, and Vermont and Chittenden County travel data.



Emery Nichols, Ms. Rochman Champlain Elementary





2025 Net Zero Energy Roadmap Update Highlights

- Burlington's greenhouse gas emissions in ground transportation and thermal/buildings sector **down 17.8% in 2025** relative to 2018 baseline. Slightly higher emissions in 2025 relative to 2024 due to thermal rebound.
- **2025 was by far best year in terms of ground transportation emissions** since Roadmap tracking began, with Burlington residents' gasoline/diesel consumption down 24.3% in 2025 relative to 2019.
- Burlington seeing fewer vehicle registrations, and **higher percentage of EV/PHEV vehicles in fleet with 6.25% of all light duty vehicles** registered.
- Rebound in thermal/building sector consumption in 2025 (weather variability impact), **this is also first year we have weather normalized thermal data.**



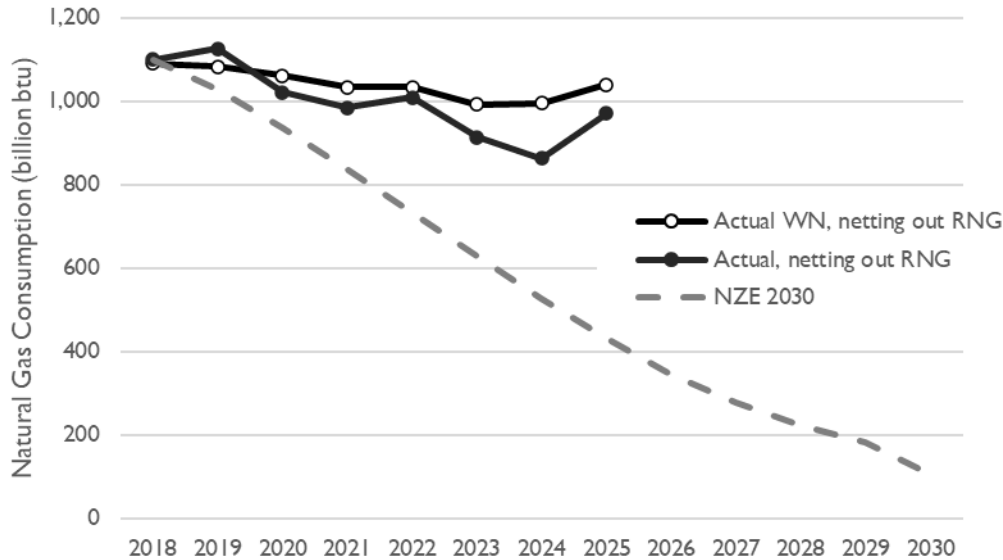


Challenges and Context –

- **Revision to 2024** – Synapse updates with most recent available data, and several updates (bus diesel, RNG, VMT) led to revision of initial 2024 numbers. Last year we reported emissions being down 19% in 2024, but current data indicates that 2024 represented a 19.6% reduction compared to 2018 levels.
- **Weather Variability** – As noted in last year’s report, colder winter weather/more Heating Degree Days could drive some rebound in thermal data, and appears that is the case with 2025 update. Heating Degree Days in 2025 were higher than in 2023 and 2024, contributing to the rebound. However, with weather normalized data now available, the trendline is now clearer.
- **Vehicle Miles Traveled** - While vehicle registrations are down again in 2025, vehicle miles traveled have rebounded since pandemic and are not far off of pre-pandemic levels. (note: 2025 VMT based on statewide numbers; 2024 and prior are Chittenden County).
- **Incentive Environment Shift** – 2025 elimination of federal incentives, and state EV rebates running out of funding, will impact 2026 data.



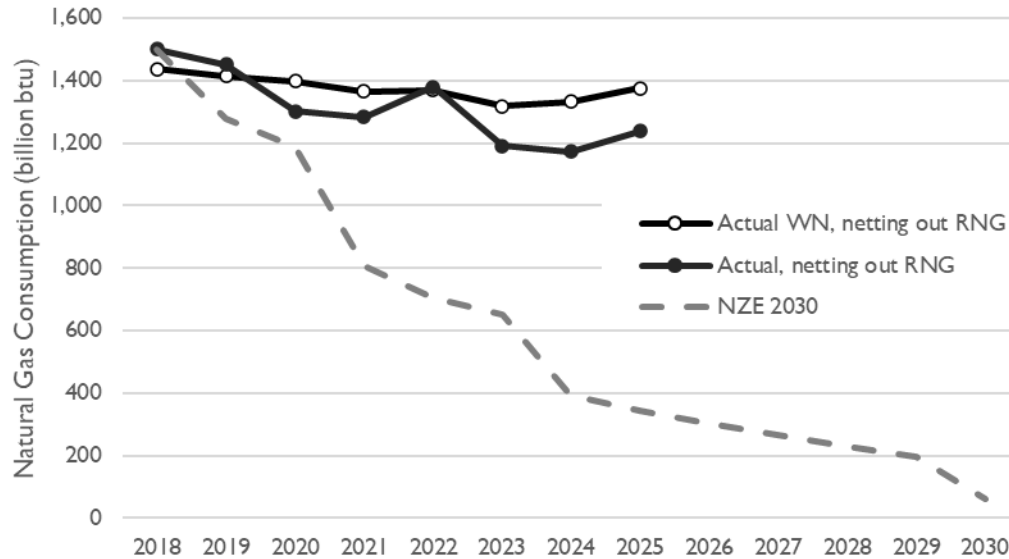
Burlington Residential Natural Gas Consumption (including RNG) 11.7% reduction 2018-2025



<https://www.weather.gov/wrh/Climate?wfo=btv> base 65 degrees for HDD. Data uses 10 year rolling avg.
HDD for 2025 – 6,482 compared to 5,914 in 2024 and 6,047 in 2023



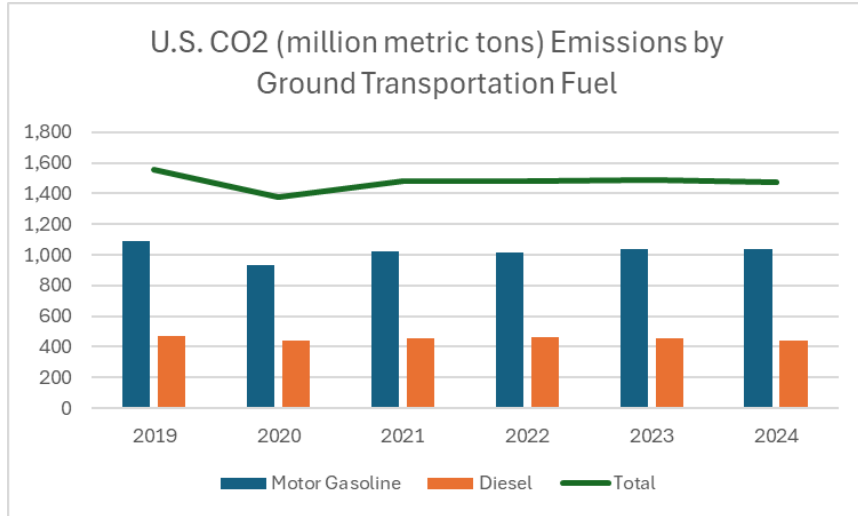
Burlington Commercial Natural Gas Consumption (including RNG) 17.4% reduction 2018-2025





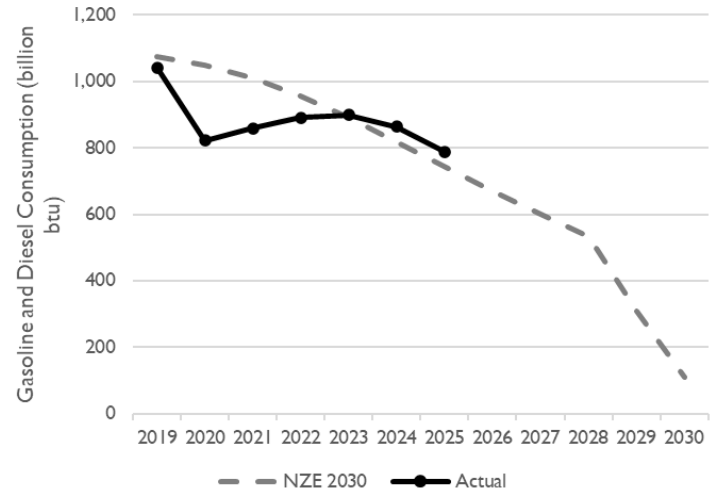
Burlington's progress on ground transportation is ahead of national pace

U.S. Motor Gasoline and Diesel CO₂ Emissions
5.15% reduction 2019-2024



<https://www.eia.gov/environment/emissions/carbon/>

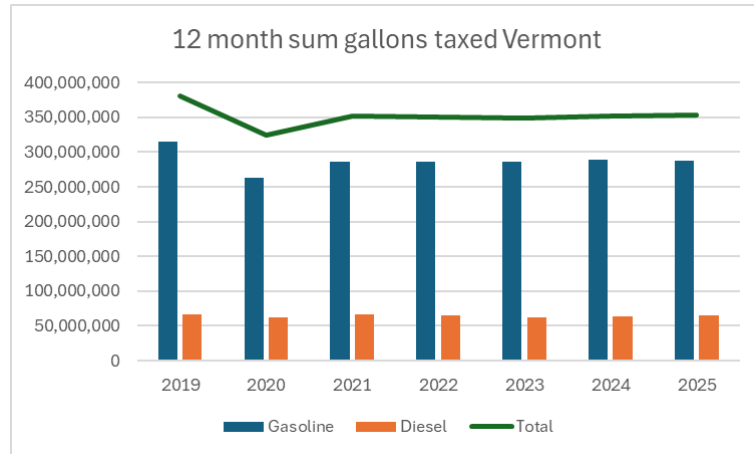
Burlington Gasoline & Diesel Consumption
24.3% reduction 2019-2025



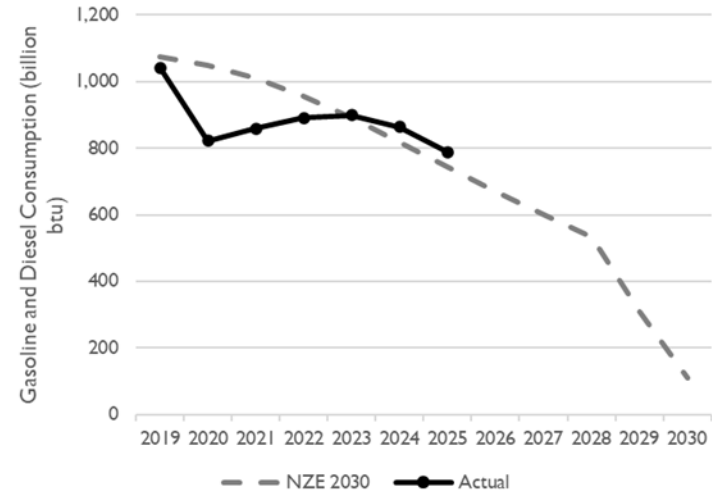


Burlington's progress on ground transportation is ahead of state pace

Vermont Gasoline and Diesel Gallons Taxed
Estimated 7.3% reduction 2019-2025



Burlington Motor Gasoline and Diesel Consumption
24.3% reduction 2019-2025

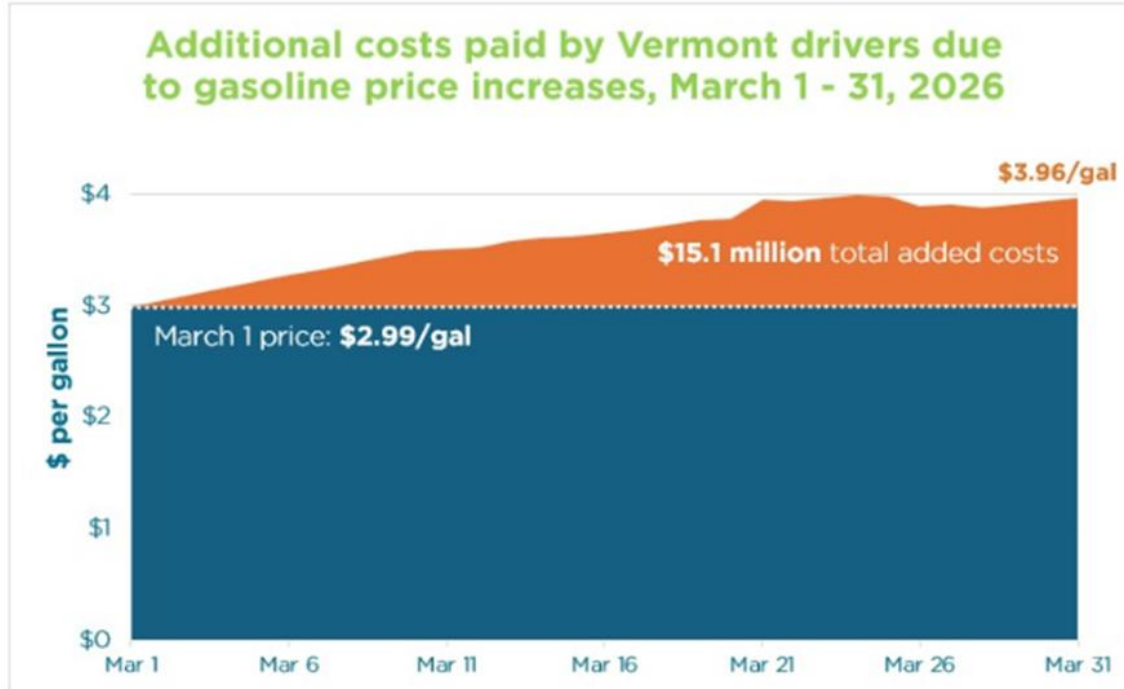




Economic Context



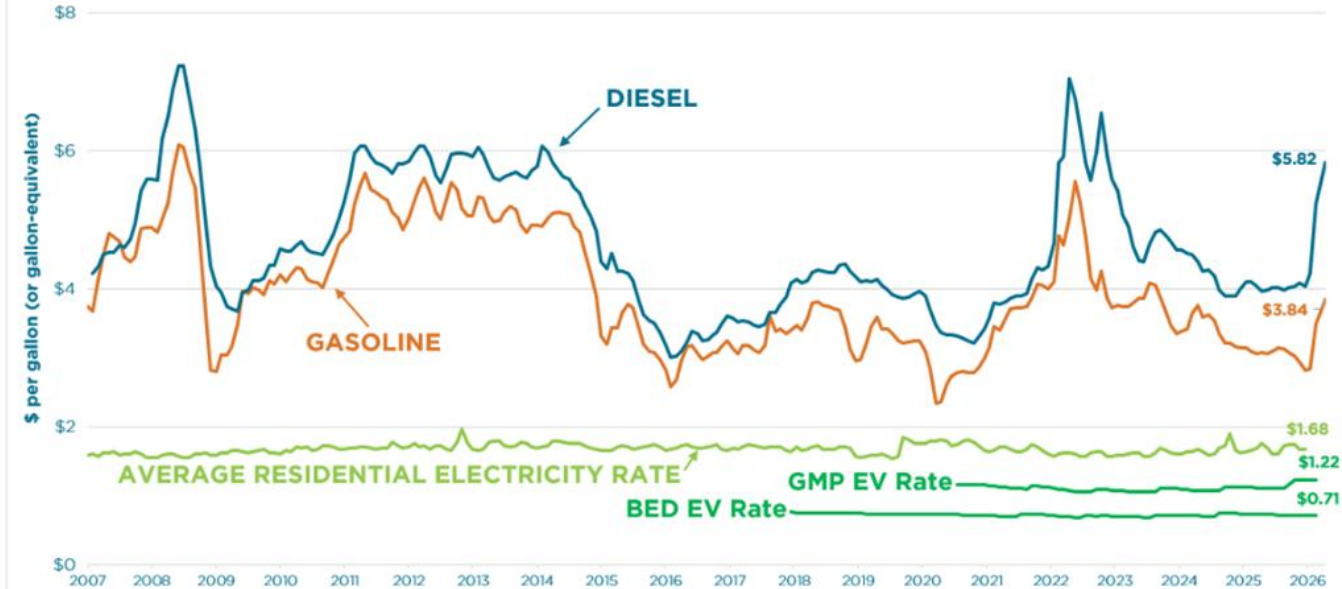
Additional costs paid by Vermont drivers due to gasoline price increases, March 1 - 31, 2026



Sources: Daily gasoline prices, GasBuddy, 2026. Estimated statewide daily gallons of gasoline, Vermont Department of Taxes via Joint Fiscal Office, 2026.



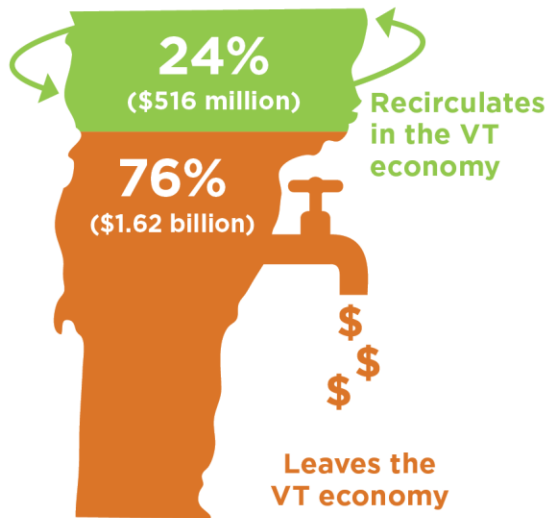
Prices of different transportation fuels over time in Vermont



Sources: Vermont electricity, gasoline, and diesel prices: Energy Information Administration, 2026; Off-peak EV rates: Green Mountain Power and Burlington Electric Department, 2026; GasBuddy, 2026. **Notes:** Statewide residential average electricity prices (shown in light green) through January 2026; EV rates, gasoline, and diesel prices through March 31, 2026. Prices shown are adjusted for inflation and shown in February 2026 dollars, using the U.S. Bureau of Labor Statistics Consumer Price Index.

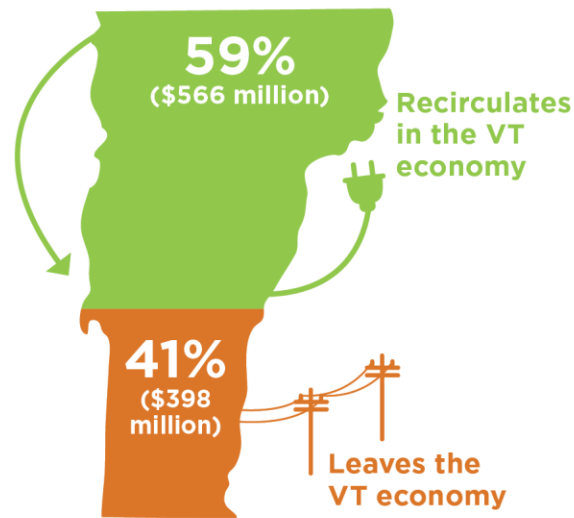


VT average annual fossil fuel spending



Sources: Fossil fuel spending: VT Department of Taxes, 2025; VGS, 2025; EIA, 2025; Dollar recirculation share: Ken Jones, EAN Senior Fellow for Economic Analysis, 2025. **Note:** Data shown are an average of 2021-2024. This graph includes spending on thermal and transportation fuels only.

VT average annual electricity spending



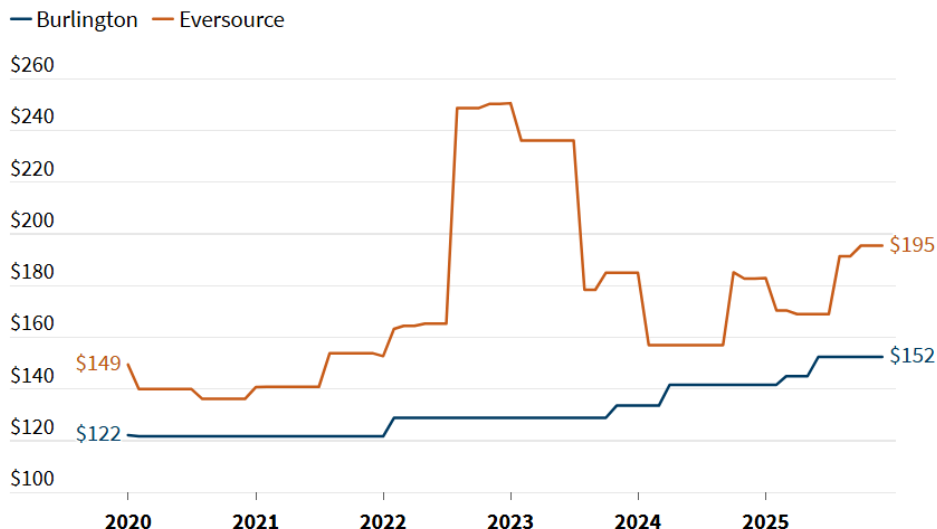
Sources: Electricity spending: Vermont Department of Public Service and VT electric utilities. Dollar recirculation share: Ken Jones, EAN Senior Fellow for Economic Analysis, 2025. **Note:** Data shown are an average of 2021-2024. The methodology for the dollar recirculation share was updated in January 2025 to account for out-of-state transmission costs.





A tale of two strategies: diversified energy sources means less price volatility in energy bills

Burlington Electric Department's and Eversource's average monthly residential bills over time. (monthly energy bill for 750 kWh, 2020–2025, in USD)



Burlington, Vermont, uses biomass facilities, hydro, wind, solar, and oil as part of its energy mix. Eversource customers in nearby New Hampshire are tied to natural gas. This analysis assumes a flat 750kWh usage per month, however, usage (and bills) are likely lower in Burlington due to long-standing energy efficiency efforts.

Source: RMI analysis. Rate data courtesy of Arcadia Genability • [Get the data](#) • [Download image](#)

*“Kept bills low and stable: Burlington generates its power from a variety of sources, including biomass facilities, hydro, wind, solar, and oil. This diversity has protected its customers from price volatility and enabled it to retain lower rates. In contrast, Eversource customers in neighboring New Hampshire have been exposed to fluctuating natural gas prices, and experienced higher, more volatile bills. (See chart below). Importantly, this analysis assumes comparable electricity usage across households, but in reality, Burlington residential users consume **34 percent less than the average** in New England, at least in part due to the city’s long-standing energy efficiency efforts. As a result, a typical Burlington homeowner’s actual bills would likely be even lower than what is represented here.”*

<https://rmi.org/why-communities-can-and-must-consider-electricity-affordability-and-risk-together/>



Incentives Update



Initiatives to-date that have supported progress –

- Carbon Fee/Rental Weatherization
- BED heat pump, EV, efficiency, and dozens of electrification incentives, with enhanced incentives for income-qualified customers
- Energy Efficiency Modernization Act
- Prior state/prior federal/VGS incentives
- EV charging infrastructure – public charging, multi-family buildings, CarShare, home charging
- NZE revenue bonds - \$40 million investment
- Electrifying City fleet and GMT buses (10% of GMT fleet)
- BED Energy Assistance Program
- VMT reductions remote work; land use planning



For more info see new law journal article - One City's Journey to Net Zero Energy: A Burlington, VT Five-Year Retrospective :

https://drive.google.com/file/d/14CFjWmK9k_TmO-mZm5rF43DoM_5YUf7b/view



BED Electrification/Efficiency Rebates To-Date (various program launch dates between 2017 and 2022)

Heat Pumps	3442
EV/PHEVs	1214
EV chargers for residential	
▪ Home chargers	379
▪ Workplace chargers	112
▪ Multi-family building chargers	38
E-Bikes	1,012
E-Buses	7
E-Mowers	887
E-Trimmers	151
E- Leaf Blowers	128
Induction cook stoves	133
E-Chainsaws	35
E snow blowers	42

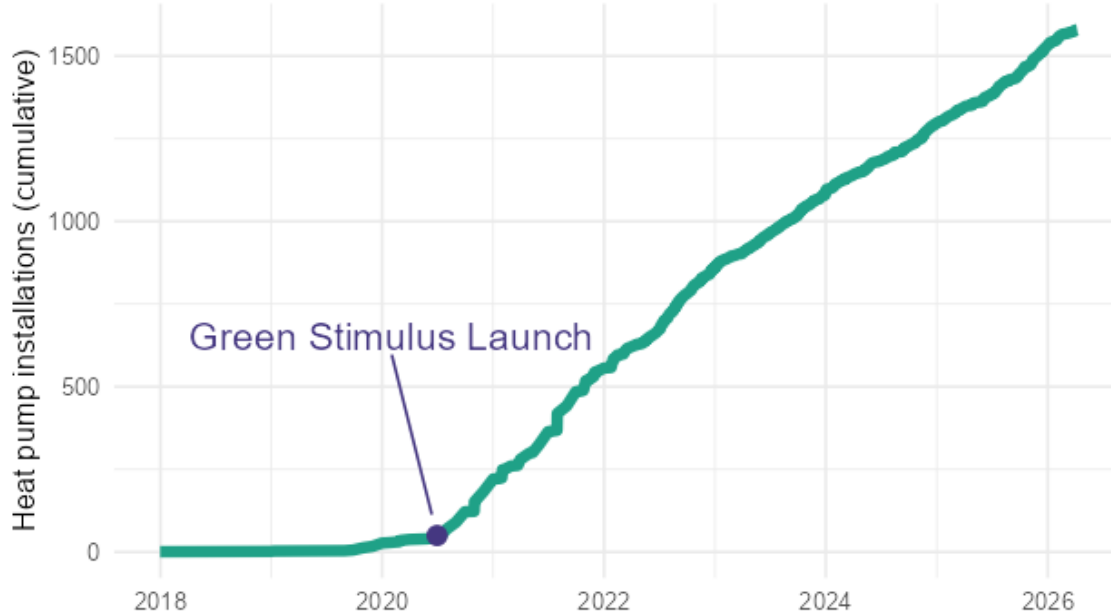




Over 3,400 total heat pumps installed in Burlington to-date

BED Tier 3 incentives (shown below) increased over 31x since launch of Green Stimulus in June 2020

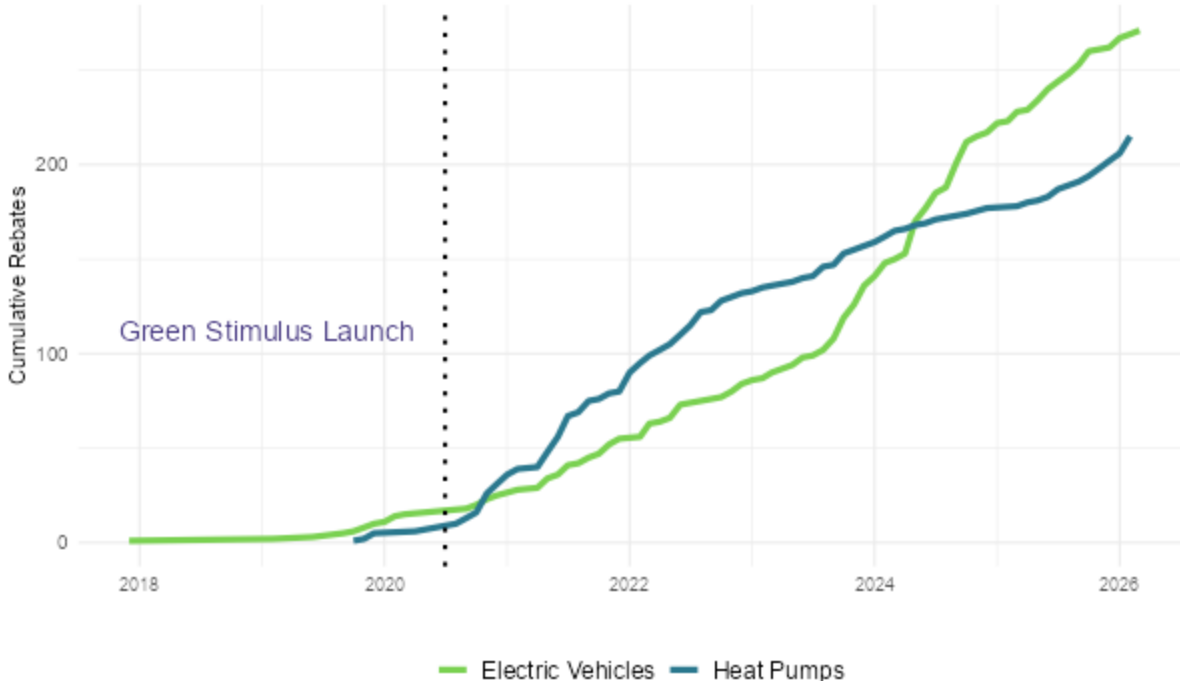
Tier 3 Heat Pump Installations





21.6% of BED's EV/PHEV rebates and **14.6%** of heat pump rebates have been enhanced rebates available to income-qualified customers, as of 2025

Improved Accessibility to Tier 3 Programs



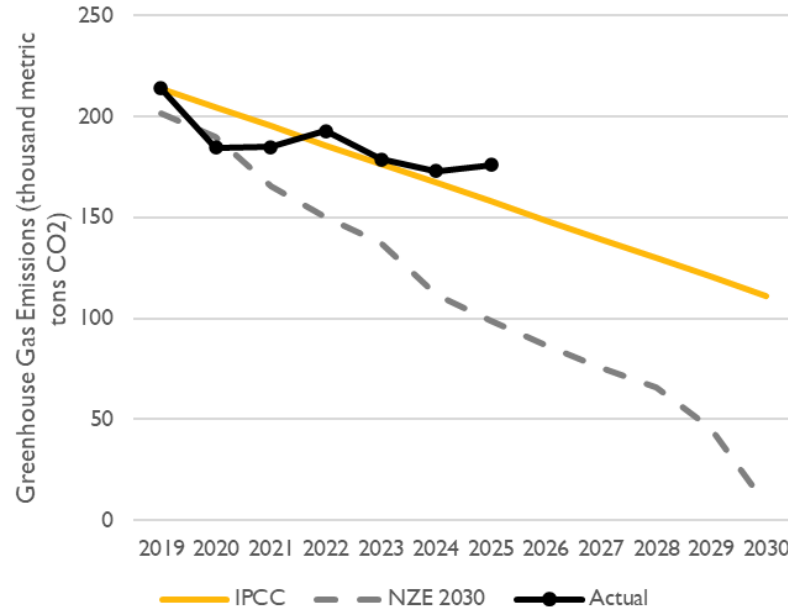
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Big Picture



Burlington NZE data compared to IPCC targets 17.8% reduction in ground transportation/thermal GHG emissions since 2019





Net Zero Energy Next Steps

- Working through H. 940 to try to maintain key BED programs (rental EV charging, geothermal test well, boosted EV rebate) and offer new programs (income-qualified panel upgrades, pre-weatherization health and safety abatement).
- Heat pump bill credit pilot program supported by U.S. DOE GRIP grant continuing
- Continued investment in public EV charging through revenue bond (5 fast chargers now deployed). Fight for EV charging grant award.
- Net Zero Energy and Grid Reliability new \$20 million bond investment
- Mayor's Climate Advisors
- Second all-electric bucket truck, more e-buses
- Tracking progress on Carbon Fee Ordinance
- Benchmarking and building efficiency

