

NET ZERO ENERGY

BURLINGTON VERMONT



About Burlington Electric Department (BED)

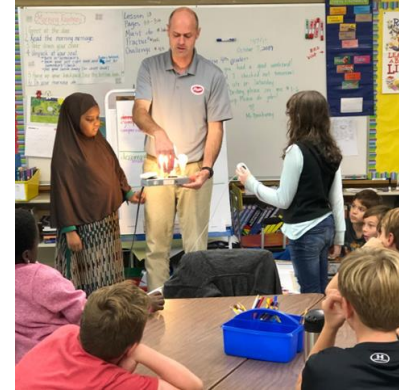
- Burlington's municipal electric utility
 - Public power since 1905
 - 123 employee positions, including the McNeil Generating Station; 86 are IBEW positions
 - Third-largest electric utility in Vermont
- 21,000+ customers
 - 17,282 residential, 3,983 commercial and industrial
 - 5,500-6,000 residential 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
 - Serves as appointed Energy Efficiency Utility (EEU) for Burlington





Energy Efficiency Utility

- BED began to offer energy efficiency programs in 1989;
- Energy efficiency investments in Burlington are saving customers approximately \$10 million annually on electric bills, including avoided energy and transmission and capacity costs;
- Energy efficiency essentially has flattened BED's energy load requirement since the 1990s. Burlington's electricity consumption in calendar year 2023 (CY23), our most recent full-year data, was approximately nine percent lower than in 1989 when the efficiency programs began;
- Through CY23, BED has invested more than \$45 million in efficiency efforts, leveraging another \$42 million from customers for a total of \$87 million. During CY23, BED saved 3,036 MWh of energy from efficiency measures installed, saving a total of 51,000 MWh over their useful life.





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.



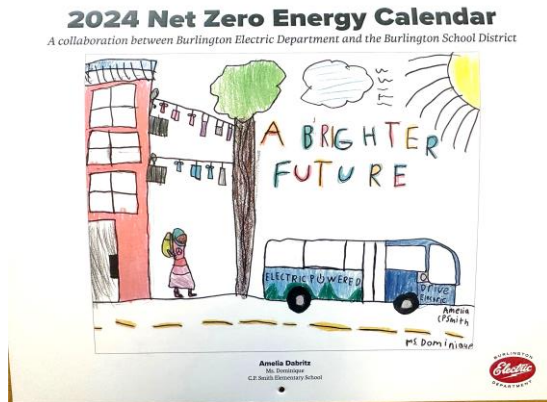
Emery Nichols, Ms. Rochman Champlain Elementary





Net Zero Energy Roadmap Update Highlights

- Greenhouse gas emissions in ground transportation and thermal/buildings sector **down 18.2% in 2023** relative to 2018 baseline
- 2023 was second largest year-over-year reduction at -8%, behind pandemic-impacted 2020 -14%
- 2023 reductions driven by thermal/buildings sector, with **natural gas consumption in 2023 at its lowest levels** since Roadmap tracking started.





Net Zero Energy Roadmap Update Highlights (continued)

Burlington's progress is ahead of state/national pace –

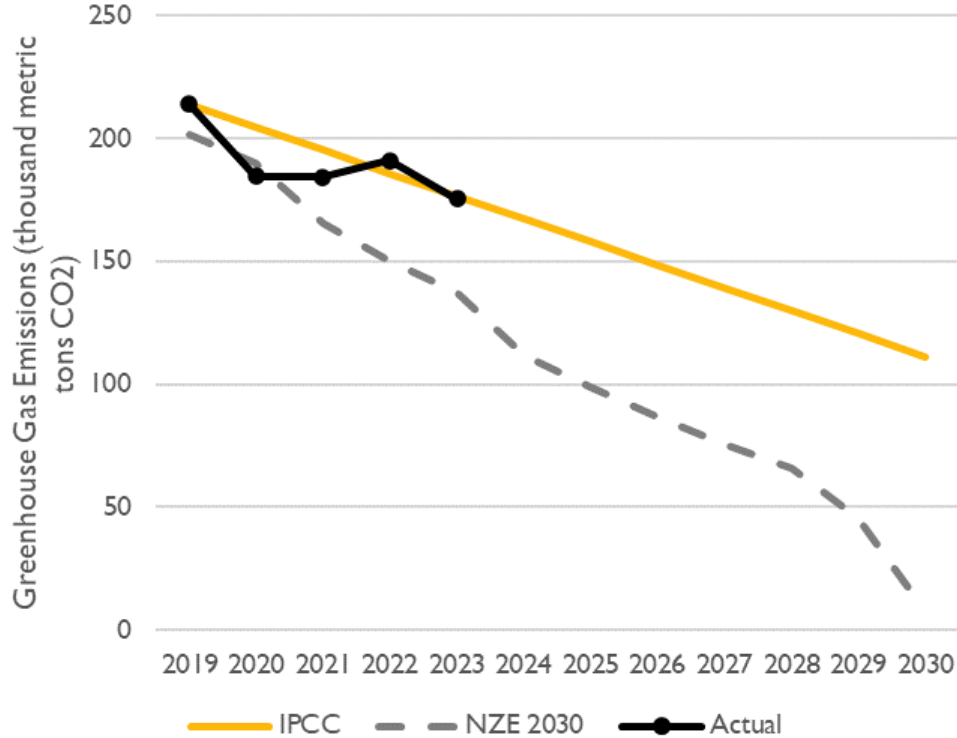
- Burlington natural gas consumption is down **19%** since 2018, statewide natural gas consumption is down 9% over same period.
- Burlington's ground transportation fuel consumption is down **13%** since 2018, compared to an approximate 4.3% decline in ground transportation fuel emissions nationally 2018-2022.

Initiatives to-date that have supported progress –

- Primary renewable heating ordinance, carbon fee ordinance, rental weatherization ordinance
- BED heat pump, EV, and dozens of other incentives, with enhanced incentives for income-qualified customers
- EV charging infrastructure – public and Parks, multi-family buildings, CarShare, off-peak home charging rate
- *NZE revenue bond \$20 million investment*
- Electrifying City fleet and GMT buses
- BED Energy Assistance Program
- VMT reductions; remote and hybrid work options
- On-bill financing partnerships with VHFA, EDA

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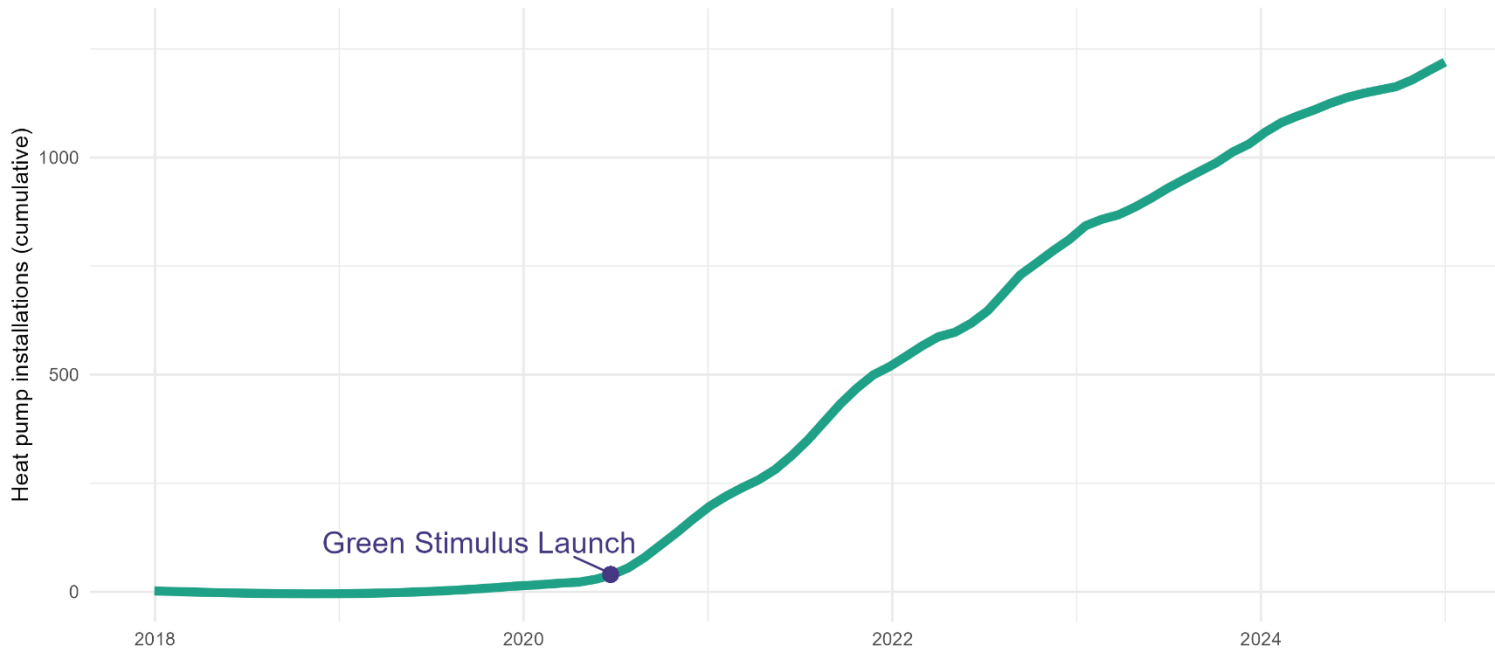




Over 2,900 heat pumps installed in Burlington to-date

Tier 3 incentivized increased 30x since launch of Green Stimulus in June 2020

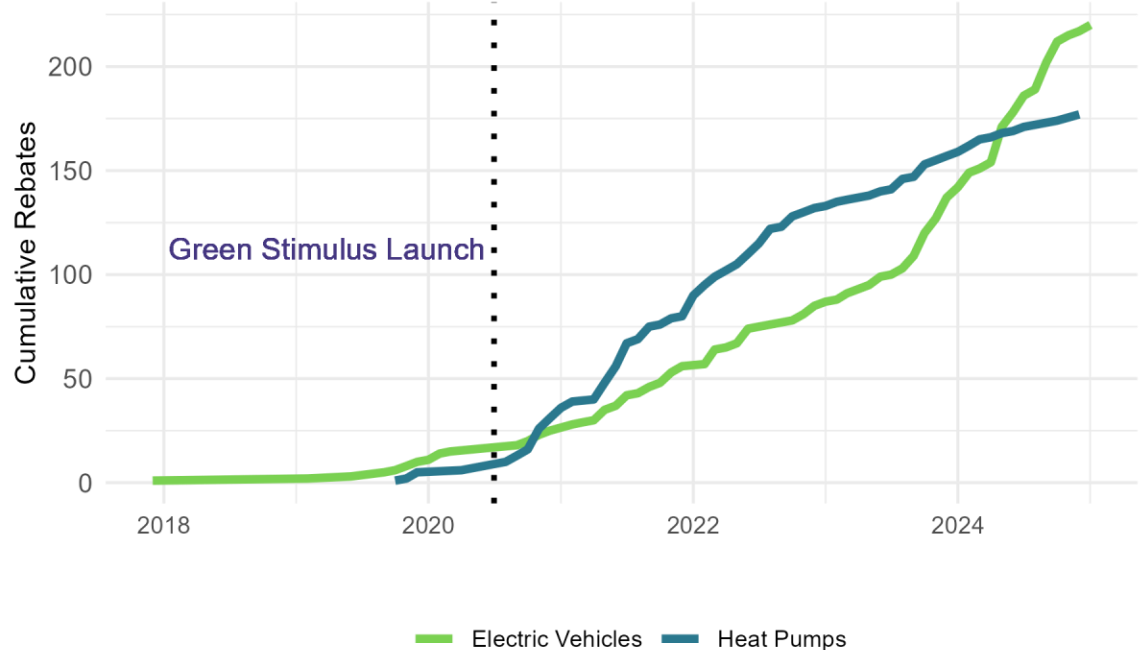
Tier 3 Residential Heat Pump Installations





23% of BED's EV/PHEV rebates and **13%** of heat pump rebates have been enhanced rebates available to income-qualified customers, as of early 2025

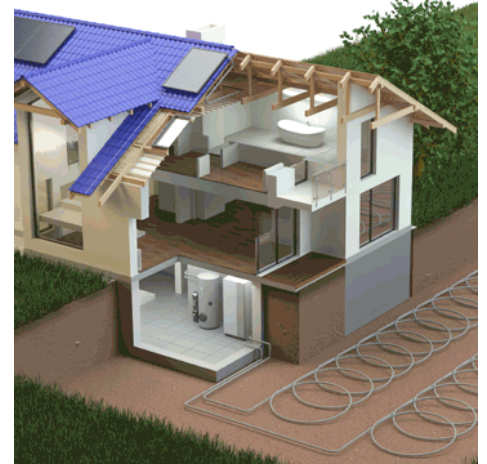
Improved Accessibility to Tier 3 Programs





Act 151 and Act 44 and related legislation Pilot Programs Results 2022-2024:

- 12 geothermal test wells either completed or pending
- Incentives provided (in tandem with BED Tier 3 electrification program incentives):
 - 64 centrally ducted heat pumps
 - 193 EV charging stations (including multi-family/rental properties)
 - 561 EVs
 - 19 heat pump water heaters
 - 507 ductless heat pumps
 - 5 electric transit buses





S. 65

- BED is supportive of advancing S. 65, to unlock more flexibility in how we use efficiency funds to reduce fossil fuel use and greenhouse gas emissions;
- S. 65 builds on several years of pilot programs such as those authorized through Act 151 (2020) and Act 44 (2023). Each authorized EEU including BED to use a portion of funds available traditionally through energy efficiency programs to be innovative and to reduce greenhouse gas emissions;
- S. 65 would also help BED with implementation support for forward-looking building sector policies including newly enacted commercial sector energy benchmarking work and rental weatherization standards.

