

NET ZERO ENERGY

BURLINGTON VERMONT



About 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
 - 5,500-6,000 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 from 2009-2021; first rate change in 12 years in 2021 due in part to pandemic impacts





Vision: Make Burlington a Net Zero Energy city across electric, thermal, and ground transportation sectors by managing demand, realizing efficiency gains, and expanding local renewable generation while increasing system resilience. <https://www.burlingtonelectric.com/nze>

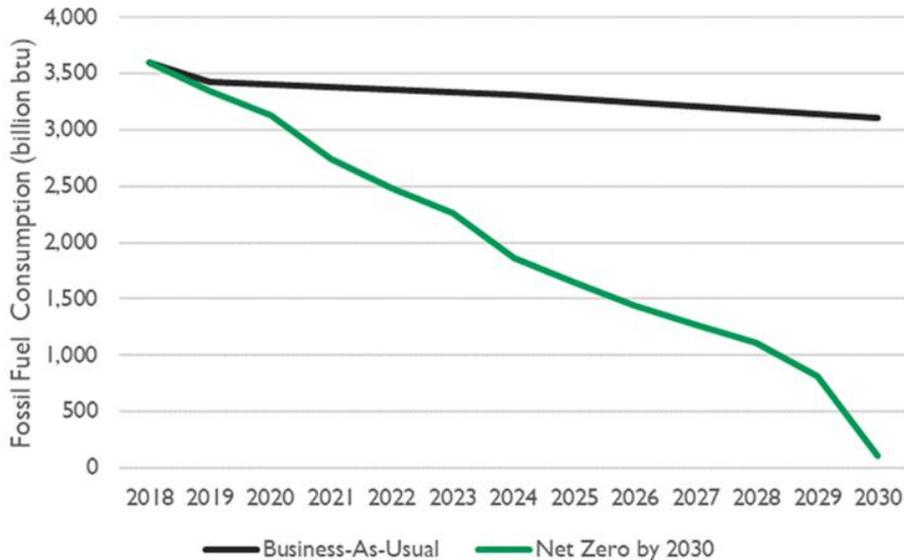
- ❑ The Net Zero Energy Roadmap was adopted by the City Council in September 2019 and was recognized by the Smart Electric Power Alliance as the “first US Net-Zero 2030 plan.”
- ❑ The Roadmap project involves all City Departments and contemplates work with key external partners such as Champlain Valley Weatherization Services and VGS for weatherization efforts and district energy.
- ❑ The Roadmap includes focus on incentives, policy, partnerships, and community engagement.



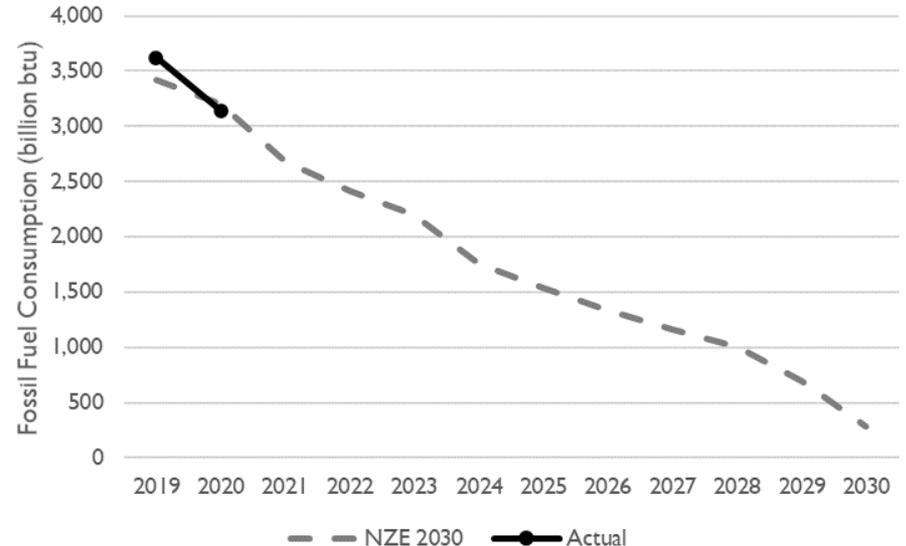
Currently Burlington is on the Net Zero Energy 2030 Path

Synapse Energy Economics Net Zero Energy Roadmap Update for 2019 and 2020 Data – Commissioned by BED

Roadmap Business as Usual compared to NZE Path



Actual Fossil Fuel Energy Consumption Thermal and Ground Transportation 2019-2020*



*2020 data includes impacts from pandemic such as reduced vehicle miles traveled



Net Zero Energy Policies and Partnerships in Burlington City Government

- ❑ **City Fleet and Heating Systems** – BED works with DPW to help analyze fleet and equipment purchases and heating system replacement options.
- ❑ **Internal Carbon Pricing** – BED helped develop a carbon pricing tool to help evaluate City fleet purchase alternatives at \$100 a ton, something that has been utilized by leading businesses such as Seventh Generation and Ben & Jerry's but not by many cities yet.
- ❑ **Energy efficiency benchmarking** with DPW in City buildings - <https://www.burlingtonvt.gov/btvstat/City-Parks-Water-and-Environment>
- ❑ **Policy Development Work – Permitting & Inspections, Planning, and BED**
 - ❑ Mayor's Housing Summit **rental weatherization standards**
 - ❑ Decarbonization and electrification in buildings – **Charter Change and Primary Renewable Heating Requirement Ordinance**





Charter Change Thermal Energy Key Points

- ❑ Charter Change was approved with approximately 65% in favor on Town Meeting Day 2021.
- ❑ Burlington has implemented policies already under existing Charter authority on primary renewable heating for new buildings, and rental weatherization standards for existing buildings.
- ❑ Policy development to-date has included all renewable fuels. Primary renewable heating ordinance, including efficient electric options (cold-climate heat pumps, central-ducted, air-to-water, geothermal), advanced wood heating, renewable natural gas, biodiesel, and renewable district heating - <https://www.burlingtonelectric.com/wp-content/uploads/Signed-CC-Ordinance-Chapter-8.-Building-And-Building-Construction-Addition-of-Article-V.-Heating-Systems-Signed.pdf>
- ❑ Charter Change would provide additional policy development tools, flexibility for alternative compliance and includes requirement for additional voter approval for any carbon impact or alternative compliance payments authorized.