

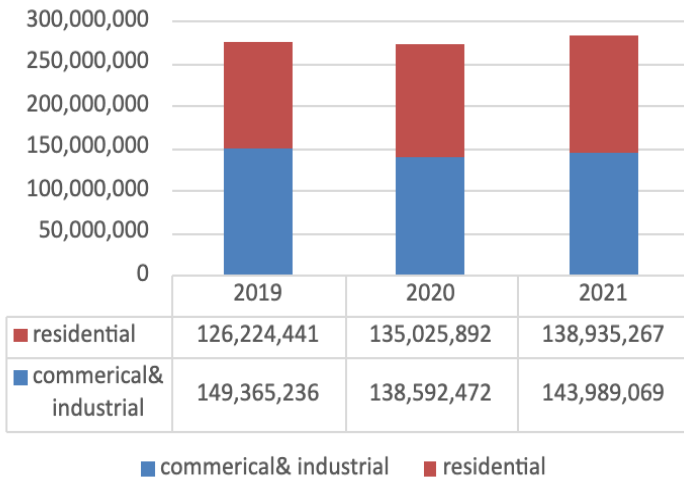
Selected Energy Data—Bennington Region and Manchester

All data provided by Efficiency Vermont. Contact the BCRC for additional municipal energy data.

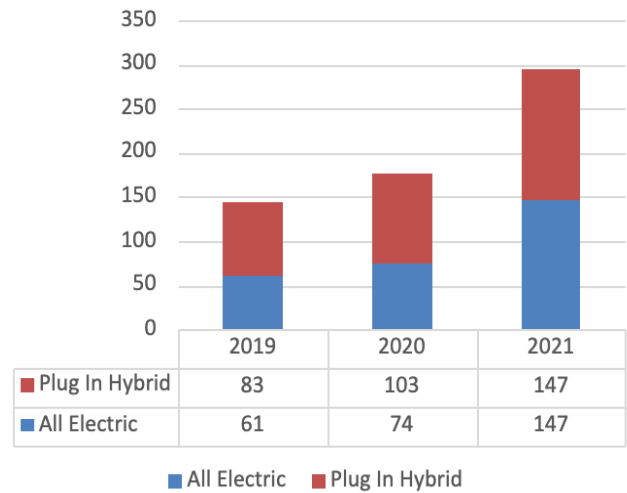
Efficiency Vermont has collected a variety of data that reflects energy demand at the local and regional level, as well as information on the number of households and businesses taking advantage of its energy efficiency incentives. Selected data from the past four years is presented below. Regional data includes total electricity consumption by sector as well as electric vehicle registrations. Town data also includes a summary of local uptake on a variety of efficiency programs; note that data for some programs was not collected for each of the four years.

The average electricity demand for a residential household in the region was 7,197 kWh (600 kWh/month) in 2019, increasing to 7,615kWh (635 kWh/month) in 2020, and rising again to 7,798 kWh (650 kWh/month) in 2021. Efficiency Vermont tracked a total of 90 home weatherization projects in the region in 2019, 88 in 2020, and 84 in 2021.

Bennington Region kWh Usage by Year

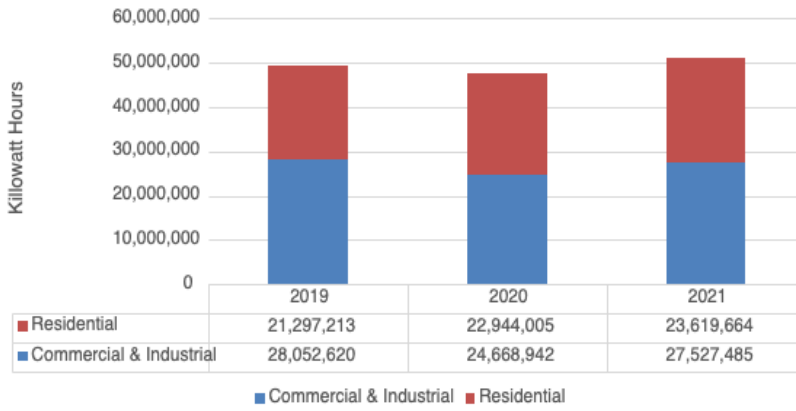


Bennington Region Electric Vehicle Registrations by Year



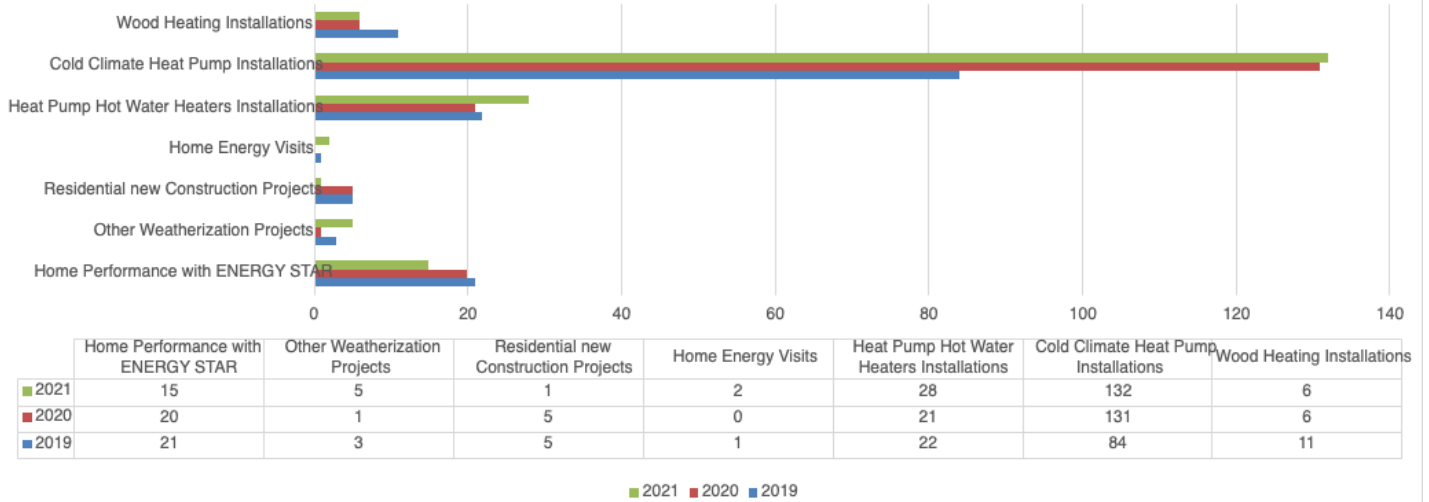
It is important to note that electrification in the thermal and transportation sectors improves overall energy efficiency and contributes to a reduction in greenhouse gas emissions (because of Vermont’s heavy reliance on electricity from renewable sources), even though electricity consumption is increased. For example, Efficiency Vermont reports installation of 282 cold climate heat pumps in the region in 2019, 468 in 2020, and 525 in 2021. If those units were used to fully heat each home (more likely most are used with a wood, propane, or oil backup), approximately 6.85 million kWh of additional electricity demand would be generated by this efficient heating source. Similarly, the 177 electric vehicle registrations in the region since 2017 would be expected to reduce gasoline use and emissions but increase electricity demand by just under 500,000 kWh per year (assuming 50% of plug-in hybrid range derived from electricity). Netting out demand from just these sources, the region’s electricity consumption from other sources in 2021 would be approximately 275.5 million kWh (versus the total of 283 million kWh reported in the chart below).

Manchester kWh Usage by Year



Commercial and industrial electricity demand in Manchester is slightly more than the residential demand, likely a result of the many retail stores. Average household electricity demand ranged from 8,303 kWh (692 kWh/month) in 2019 to 9,067 kWh (755 kWh/month) in 2021, higher than the regional averages. Electricity consumption is likely being affected by the significant number of recent heat pumps used for space and water heating.

Residential Projects in Manchester by Year



Manchester households appear to have responded favorably to information campaigns and Efficiency Vermont incentives for heat pump products. Tracking of new wood heating systems—benefiting from Efficiency Vermont incentives—has recently been initiated and is expected to continue to increase.

The limited number of home energy visits and various weatherization program offerings suggests that these offerings will require additional outreach going forward. Building weatherization is highly cost-effective and improves the performance of alternative heating systems.

Plug-in electric vehicles are available with either fully electric motors or with hybrid drivetrains that provide sufficient electric range for local trips, switching to gasoline after the battery is depleted. With Vermont’s transportation sector being the largest contributor to greenhouse gas emissions and with limited progress toward achieving local and state energy goals, greater utilization of electric vehicles is essential. Strong purchase incentives, expanding driving ranges, low operating and maintenance costs, and a wider variety of available vehicles should support this transition.

Manchester Electric Vehicle Registrations by Year

