

Greenhouse Gas Emissions Projections

Energy Action Network
For the Vermont Climate Council

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The 2026 Annual Progress Report for Vermont

- Inventory data; publication typically in June
- Typically timelines line up; federal delays caused misalignment
- We calculated emissions in the thermal, transportation, and electricity sectors using publicly available data:
 - Vermont Department of Taxes
 - Vermont Public Service Department
 - Vermont Legislative Joint Fiscal Office
 - Vermont Gas Services
 - U.S. Environmental Protection Agency
- We did not calculate emissions estimates from the non-energy sectors (agriculture, industrial processes, and waste management)
 - Used carry-forward values from the 2022 GHG Inventory and included a range of potential emissions based on the range of emissions values reported in the previous five ANR GHG Inventories (2017 to 2022)



2026 GHG emissions estimates: RCI and transportation

- Tax Department fuel sales data
 - Data for gasoline, diesel, fuel oil, propane, and kerosene
 - Applied multipliers to account for the small portion of fuels not represented by this data (~4% of total transportation emissions and ~9% of total RCI emissions)
 - EPA emissions factors
 - Methodology also described in our 2025 report, ["Fossil Fuel Sales in Vermont: What the Latest Data Mean for the State Economy, Vermont Consumers, and GHG Emissions Reduction Commitments"](#)
- Estimates have been accurate
 - RCI: the difference between our estimate and ANR's reported value has averaged **0.45%** since 2017 (when Tax Department data first became available)
 - Transportation: average difference is only **0.34%** since 2017



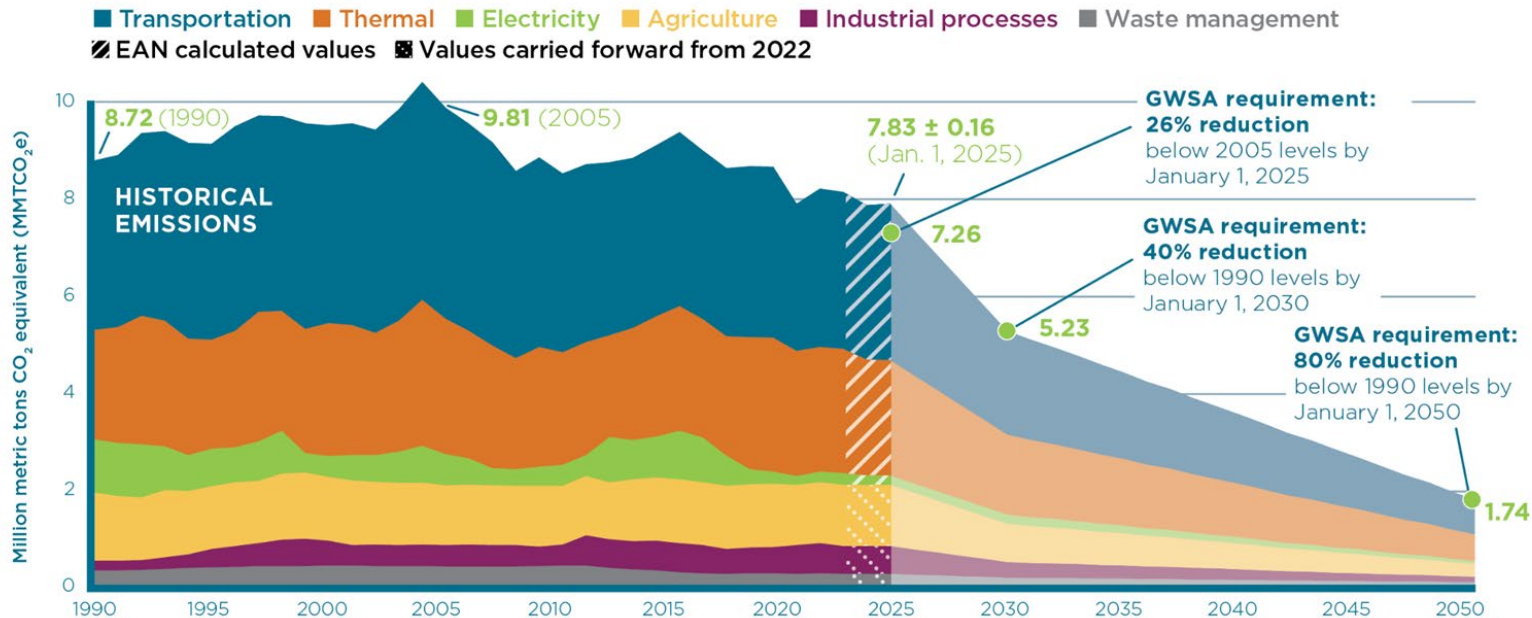
2026 GHG emissions estimates: electricity

- Electricity emissions estimates use a different methodology:
 - Electricity delivery values from the Public Service Department
 - NEPOOL GIS emissions factors to calculate emissions from Vermont's residual mix
 - Following procedures of ANR electricity emissions calculation described in the [GHG Inventory methodology document](#)
 - For wood generation (non-biogenic emissions), coal, oil, and fossil gas, we used carry-forward values from the 2022 GHG Inventory



Greenhouse gas emissions projections- 2026

VT's historical GHG emissions, estimates, and future requirements



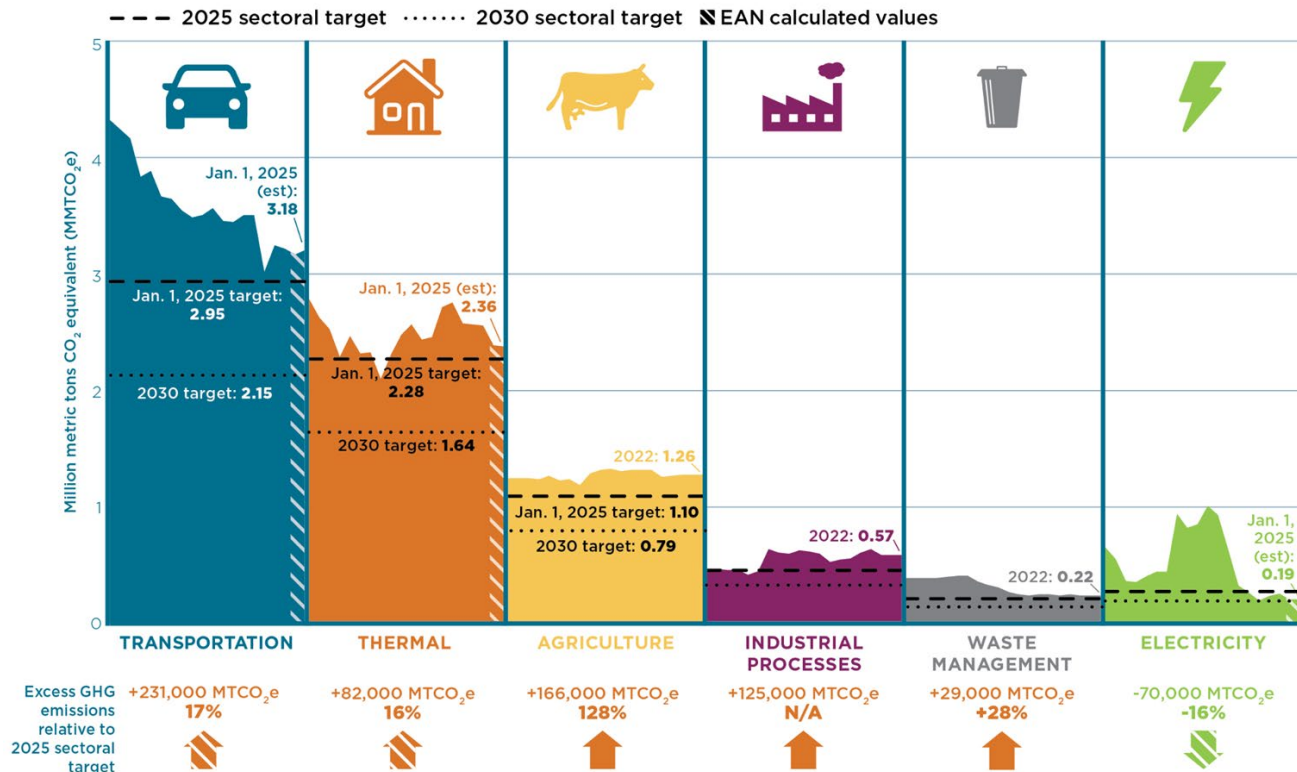
Source: 1990–2022 emissions: Vermont Agency of Natural Resources, “Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990–2022,” 2025. EAN calculated emissions estimates for 2023 and 2024 in the transportation and thermal sectors use sales data from the Vermont Department of Taxes, the Vermont Joint Fiscal Office, Vermont Gas Services, and GHG emissions factors from the EPA. EAN

calculated electric emissions estimates for 2023 and 2024 use electricity delivery data from the Vermont Department of Public Service and GHG emissions factors from NEPOOL GIS (as described in the Vermont Agency of Natural Resources’ (ANR) Greenhouse Gas Emissions Inventory methodologies document) plus a carry-forward estimate of emissions from wood-fired electricity generation from the 2022 ANR Greenhouse Gas Emissions Inventory and Forecast.

Note: A small amount of emissions from the “fossil fuel industry” category (i.e., fugitive emissions from fossil gas pipelines in VT), accounting for 0.4% of Vermont’s overall emissions in 2022, is not visible on this graph.



Vermont GHG emissions by sector since 2005



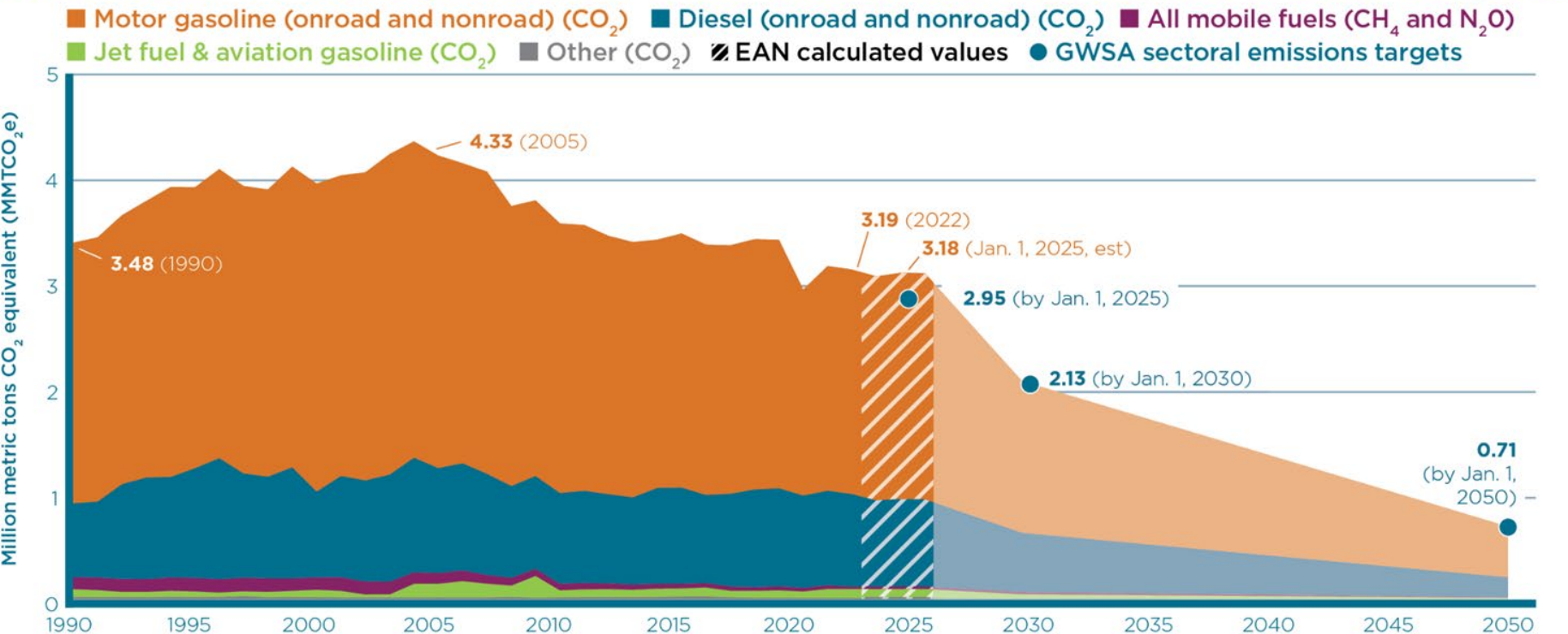
Source: 2005-2022 emissions: Vermont Agency of Natural Resources, "Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990-2022," 2025. EAN calculated emissions estimates for 2023 and 2024 in the transportation and thermal sectors using sales data from the Vermont Department of Taxes, the Vermont Joint Fiscal Office, Vermont Gas Services, and GHG emissions factors from the EPA. EAN calculated electric emissions estimates for 2023 and 2024 using electricity delivery data from the Vermont Department of Public Service and GHG emissions factors from NEPOOL GIS (as described in the Vermont Agency of Natural Resources' (ANR) Greenhouse Gas Emissions Inventory methodologies document) plus a carry-forward estimate of emissions from wood-fired electricity generation from the 2022 ANR Greenhouse Gas Emissions Inventory and Forecast.

Notes: The VT Climate Council set sectoral emissions targets for GWSA compliance based on each sector's share of emissions in 2018. EAN calculated estimates of GHG emissions in the transportation, thermal, and electric sectors for 2023 and 2024. The agriculture, industrial processes, and waste management sector emissions data is only available through 2022. A small amount of emissions from the "fossil fuel industry" category (i.e., fugitive emissions from fossil gas pipelines in VT), accounting for 0.4% of Vermont's overall emissions in 2022, is not visible on this graph. Sectoral values may not sum to statewide values due to independent rounding. The 2025 sectoral target for industrial process emissions was that they remain at 2005 levels, so a percentage of targeted reduction in this sector cannot be calculated.

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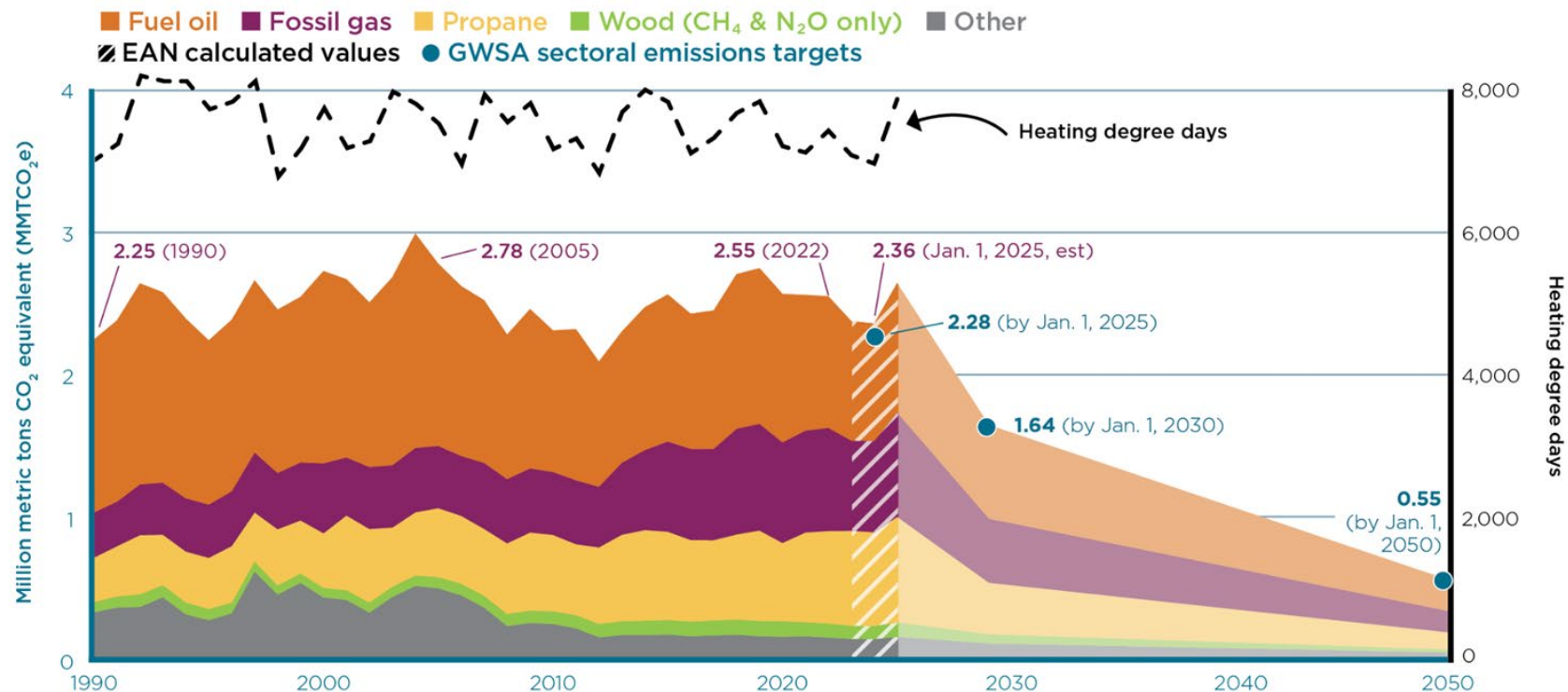
Historical VT transportation GHG emissions and future sector targets



Source: 2005-2022 emissions: Vermont Agency of Natural Resources, "Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990-2022," 2025. 2023-2025 emissions: EAN.

Notes: EAN calculated emissions estimates for 2023-2025 in the transportation sector using sales data from the Vermont Department of Taxes, the Vermont Joint Fiscal Office, and GHG emissions factors from the EPA. The VT Climate Council set sectoral emissions targets for GWSA compliance, which are represented by the blue dots on the graph.

Historical VT thermal GHG emissions and future sector targets



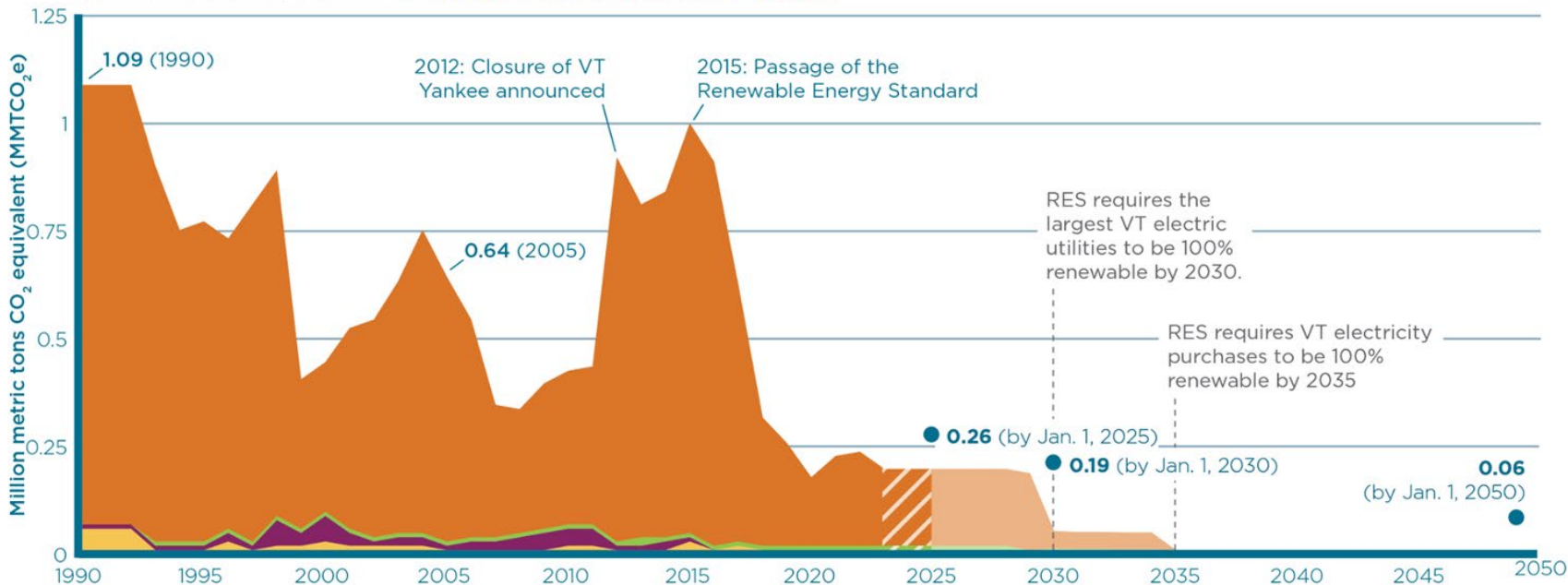
Sources: 2005-2022 emissions: Vermont Agency of Natural Resources, "Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990-2022," 2025. 2023-2025 emissions: EAN. Heating degree days: NOAA Climate Prediction Center, 2025.

Notes: EAN calculated emissions estimates for 2023-2025 in the thermal sector using sales data from the Vermont Department of Taxes, the Vermont Joint Fiscal Office, Vermont Gas Services, and GHG emissions factors from the EPA. "Thermal sector" refers to the Residential/Commercial/Industrial (RCI) Fuel Use sector in the ANR GHG Inventory. "Other" includes kerosene, coal, and less common commercial and industrial fuels. Heating degree days are a measure of how cold the temperature was on a given day, and compares the mean outdoor temperature to a standard temperature of 65F. It is measured by subtracting the mean temperature from the standard temperature and aggregated over the entire year. The VT Climate Council set sectoral emissions targets for GWSA compliance, which are represented by the blue dots on the graph.



Historical VT electricity GHG emissions and projections based on Renewable Energy Standard

■ Residual system mix (ISO-NE)
 ■ Wood (CH₄ & N₂O only)
 ■ Oil
 ■ Fossil gas
▨ EAN calculated values
 ● GWSA sectoral emissions targets



Source: 2005-2022 emissions: Vermont Agency of Natural Resources, "Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990-2022," 2025. 2023-2024 emissions: EAN.

Notes: EAN calculated electricity sector emissions estimates for 2023 and 2024 using electricity delivery data from the Vermont Department of Public Service and GHG emissions factors from NEPOOL GIS (as described in the Vermont Agency of Natural Resources' (ANR) Greenhouse Gas Emissions Inventory methodologies document) plus a carry-forward estimate of emissions from wood-fired electricity generation from the 2022 ANR Greenhouse Gas Emissions Inventory and Forecast. The Renewable Energy Standard (RES) requires that 100% of electricity purchases by VT's largest electric utilities must be renewable by 2030, and 100% of all electricity purchases must be renewable by 2035. The emissions projections from 2025 to 2035 are conservative estimates of utility compliance with the RES.

