



# Transportation Sector Presentations

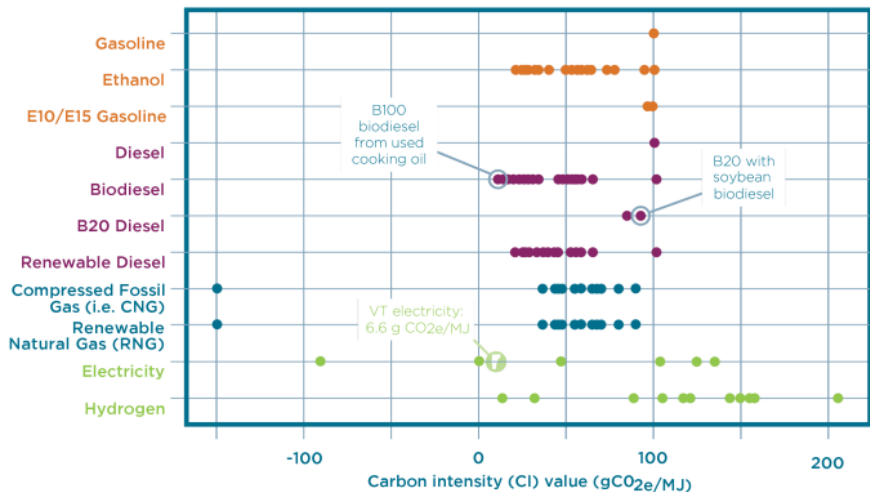
A VT exploration of West Coast Market-Based Approaches to Decarbonize Transportation | Ryan Lamberg, Tied Branch Consulting

# What is a Clean Transportation Standard?

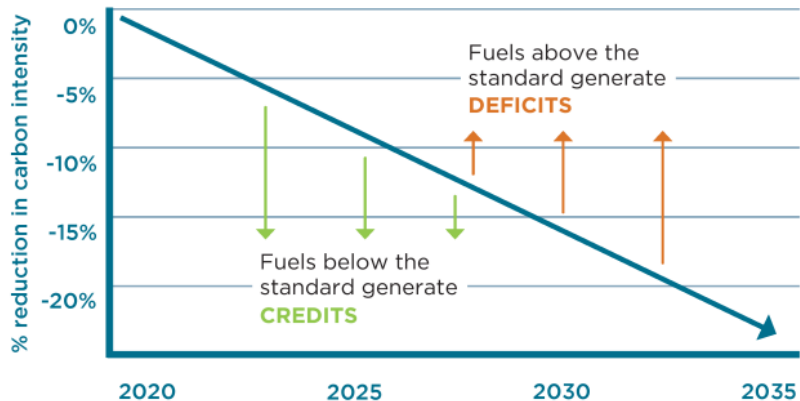
An Introduction by the Clean Transportation Standard Network Action Team

To help Vermont meet the requirements of the Global Warming Solutions Act, a proven approach is a Clean Transportation Standard: a market-based program that lowers carbon and other emissions in the transportation sector.

Carbon intensity values of different transportation fuels

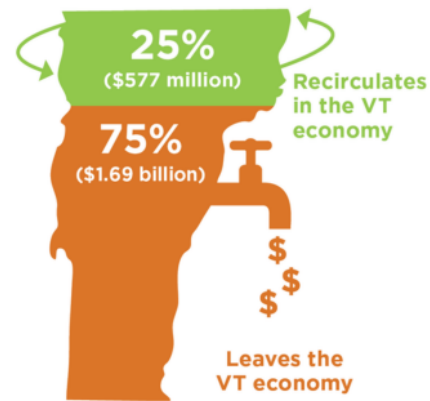


## Declining carbon intensity curve



A switch to electric vehicles, heat pumps, and/or advanced biofuel energy often allows consumers to save money year after year with **lower-cost, price stable renewable alternatives**, while helping to create **good, local jobs**. The efficient and renewable alternatives keep a higher share of our energy dollars recirculating in Vermont, helping employ our neighbors and improving our state economy.

## Vermont fossil fuel spending, 2023



# What does Vermont's transportation system look like today?

## Transportation Facts

Petroleum-based fuels accounted for about 95% of the total energy used by the Vermont transportation sector in 2022, and 40% of VT GHGs.

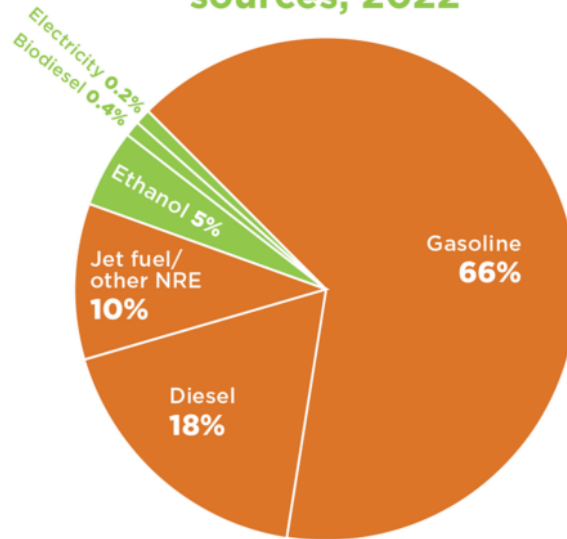
In 2023, Vermont had

**500,000+ gasoline vehicles** and  
**11,000 EVs** (both BEV and PHEV).

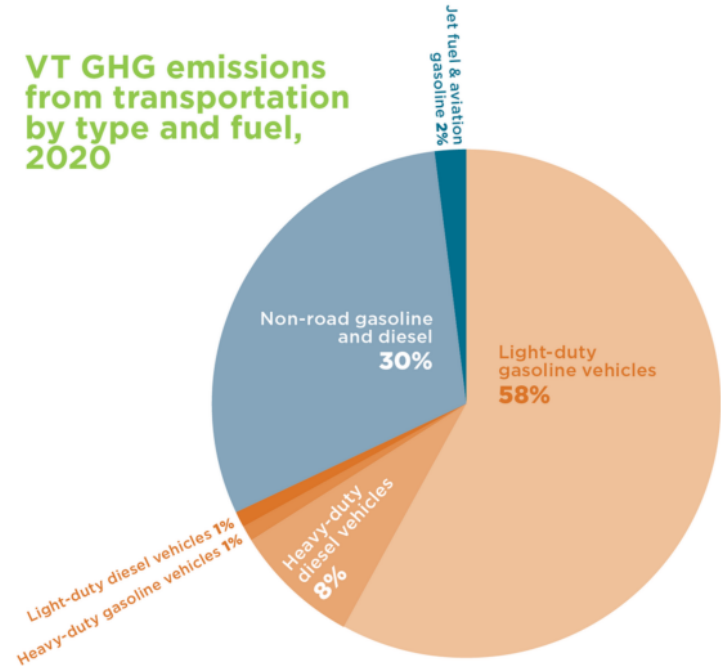
### Liquid Fuel Consumption Estimates

- 270 million gallons Gasoline
- 80 million gallons Diesel
- 30 million gallons of ethanol
- 2 million gallons of biodiesel

## VT transportation energy sources, 2022



## VT GHG emissions from transportation by type and fuel, 2020



**REET model developed by Argonne National Labs is KEY: Different biofuels have different lifecycle emissions factors based on how each fuel is sourced and produced, so it is important to distinguish between them rather than lump them together.**

Lifecycle analyses of biofuels can and should also account for emissions related to both direct and indirect land use change, as Oregon, California, and Washington do for assessing compliance with their Clean Fuels policies.

# What could Vermont look like in 2030 with a Clean Transportation Standard in place?

