

Decarbonize Transportation

with Renewable Natural Gas



Affordable and proven natural gas vehicle technology fueled with biomethane (RNG) collected at local landfills, wastewater treatment plants, commercial food waste facilities, and agricultural digesters can yield a carbon-negative lifecycle emissions result.

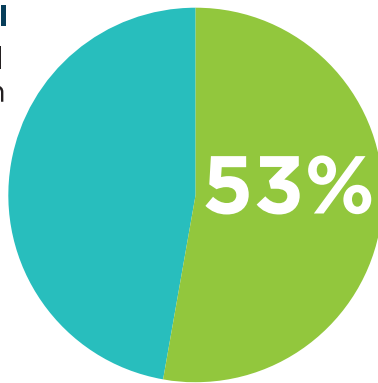
Note: California Air Resources Board (CARB), LCFS Pathway Certified Carbon Intensities.

2020 NGV Fuel Use

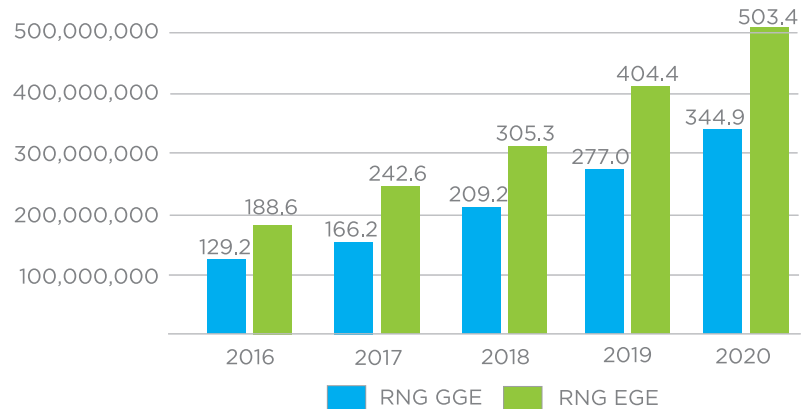
646 Million GGE Total

In 2020, **53%** of all on-road fuel used in natural gas vehicles was RNG

- Conventional Natural Gas
301 Million GGE
- Renewable Natural Gas
345 Million GGE



RNG Growth



RNG Production Facilities



157

in operation



76

under construction



79

in development

Note: in U.S. and Canada as of 4/1/21, U.S. DOE Argonne National Laboratory

RNG use as a transportation fuel grew **25% over 2019** volumes, increasing **267% over the last five years**. RNG use total eliminated **3.5 million tons** of CO₂e in 2020.

Note: GGE = gasoline gallon equivalent. EGE = ethanol gallon equivalent. EGE units are converted to GGE using a 0.69 multiplier (77,000 Btu/112,400 Btu). Total Natural Gas in Transportation Figure derived from U.S. EIA's Annual Energy Outlook (2021) and RNG numbers derived from U.S. EPA RFS Reporting with adjustments made based on fueler member reporting. Total greenhouse gas emissions and associated carbon dioxide equivalent (CO₂e) metric tons identified using average carbon intensity (CI) scores of 4.89 g/MJ for Bio-CNG and 54.93 g/MJ for Bio-LNG as reported for the last four quarters under the California LCFS and based on the percentage of RNG reported under the RFS Program - CNG (82%) and LNG (18%).

CARB's Q3 2020 data confirms that the energy weighted CI value of California's RNG vehicle fuel portfolio in the LCFS program is carbon-negative and below zero at **-17.95 gCO₂e/MJ**.

Note: California Air Resources Board Low Carbon Fuel Standard Program Certified Fuel Pathways

Put into Perspective, Last Year RNG as a Transportation Fuel ...



Lowered GHG emissions equivalent to

8,796,396,117

miles driven by the average passenger car



Reduced CO₂ emissions equal to

393,842,804

gallons of gasoline consumed



Eliminated CO₂ emissions associated with

425,759,115,664

smartphone charges



Sequestered carbon equal to growing

57,874,580

tree seedlings for ten years



or **4,288,221** acres of

U.S. forests for one year

Note: Assumes 3,500,081 metric tons of CO₂e eliminated in 2020 through RNG usage calculated using CARB's LCFS carbon intensity numbers. GHG equivalency calculated using the U.S. EPA's calculator.

THE COALITION FOR
**RENEWABLE
NATURAL GAS**

This 2020 on-road RNG use report was issued by NGV America and the Coalition for Renewable Natural Gas, April 2021.

Find out more at

RNGCoalition.com or NGVAmerica.org.

NGV AMERICA

Natural Gas Vehicles for America