Decarbonize Transportation

with Renewable Natural Gas

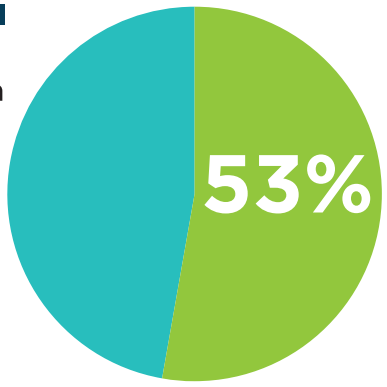
Affordable and proven natural gas vehicle technology fueled with biomethane (RNG) collected at local landfills, wastewater treatment plants, commercial food waste facilities, and agricultural digesters can yield a carbon-negative lifecycle emissions result.

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

2020 NGV Fuel Use

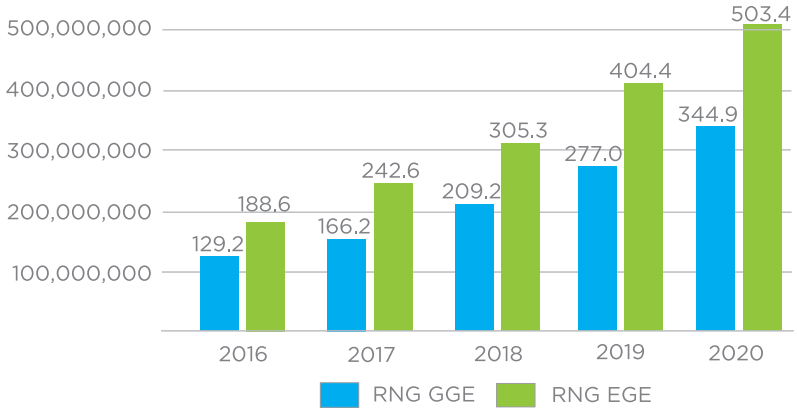
646 Million GGE Total

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 and eliminating **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/1121,400 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 CO_2 emissions equal to **393,842,804** gallons of gasoline consumed

Eliminated CO_2 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 NGVAmerica and the Coalition for Renewable Natural Gas, April 2021. Find out more at **RNGCoalition.com** or **NGVAmerica.org**.

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Natural Gas Vehicles for America