Decarbonizing California Fleets

with Renewable Natural Gas Transportation

For the fourth consecutive year, California fleets fueled with in-state bio-CNG were **carbon-negative in 2023**, based on an annual average **carbon intensity score of -126.42 gCO2e/MJ**. Biomethane sourced from dairy digesters, local landfills, wastewater treatment plants, commercial food waste facilities, and agricultural operations provides the most affordable and proven solution to decarbonize medium- and heavy-duty transportation today.

Note: gCO2e/MJ = grams of carbon dioxide equivalent per megajoule of energy. Data from California Air Resources Board (CARB) Low Carbon Fuel Standard (LCFS) Reporting Tool Quarterly Summaries



The only motor fuel with negative carbon intensity



Fuel Up on Fact:

At -126.42, bio-CNG holds the lowest average carbon intensity of any clean fuel option on California's roadways today and is the only fuel with a negative carbon intensity

Note: Data from CARB LCFS Reporting Tool Quarterly Summaries (calculated weighted average)



CA LCFS 2023 Renewable Fuels Average CI Score (gCO2e/MJ)



Note: Baseline conventional diesel carbon intensity = 100.45. Data from CARB's LCFS Reporting Tool Quarterly Summaries

Report produced June 2024 by:





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By the numbers...

RNG use as a transportation fuel in California has increased 46% over the last five years.

In 2023 alone, California's RNG motor fuel use resulted in the displacement of **5.3 million** metric tons of carbon dioxide equivalent (CO2e) emissions.





RNG use in 2023 accounted for over 23% of all the emission reductions generated by motor fuels or 17% of all credits generated under the program including credits for on-road and off-road electric use. electric infrastructure, and refinery improvements.

RNG's 2023 GHG

emissions reductions are the equivalent of removing



1,267,484 gasolinepowered cars from California roadways for one year.

Note: Natural gas volumes and emission reductions calculated using figures available from CARB LCFS Reporting Tool Quarterly Summaries

Packing a big punch

While RNG made up just 5.1% of all on-road alternative fuels dispensed by volume, it generated **19.2%** of all CO2e reductions of on-road alternative fuels reported under the California LCFS in 2023.



2023 On-Road Alternative Fuels Volumes & Emission Reductions

Treats all renewable diesel reported in program as on-road fuel. DGE = diesel gallon equivalent. Data from CARB LCFS Reporting Tool Quarterly Summaries



209.90 million DGE total

In 2023, 97% of all on-road fuel used in natural gas vehicles in California was RNG

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