

美国加州使用RNG燃料的车队实现了负碳排放



美国天然气汽车(NGV America)和可再生天然气联盟(RNG Coalition)今天宣布，使用RNG燃料的加州车队在2020年实现了碳零排放。

去年，加州天然气汽车使用的所有公路燃料中有92%是可再生天然气(RNG)。根据加州空气资源委员会(California Air Resources Board)的数据，该混合物中生物CNG的年平均碳强度得分为-5.845g CO₂e/MJ。

此外，加州生物天然气的碳强度持续下降。2020年第四季度生物天然气碳强度平均值为-26.11g CO₂e/MJ，低于第二季度的-0.85和第三季度的-17.95。

NGV America总裁Dan Gage表示：“加州使用生物天然气燃料的车队在2020年的运输作业中首次实现了零碳排放。经过验证的数据表明，他们的卡车和公交车拥有零碳足迹，同时几乎消除了导致哮喘、心脏病的空气污染物。”

除温室气体(GHG)排放外，超低氮氧化物(NO_x)排放中以RNG为燃料的卡车和公共汽车的表现水平比联邦氮氧化物(NO_x)标准低95%，比联邦颗粒物(PM_{2.5})标准低98%。

“这些数字突显出RNG在实现碳中和中的重要作用，”RNG联盟的创始人兼首席执行官Johannes Escudero说。“RNG是一种独特的可再生能源，因为它解决了废物管理的问题，同时缓解了气候挑战。”

从农业、废水、垃圾填埋场或食物垃圾中的有机物质中捕获的RNG，在为公路车辆(如短程和长途卡车、公交、垃圾和回收车辆)提供燃料时，会产生负碳排放。

在过去的五年中，RNG作为交通燃料在加州的使用增长了177%。NGV America和RNG联盟报告称，到2020年，该州总共使用了1.648亿加仑(DGE)生物天然气作为汽车燃料。其中，1.524亿加仑(DGE)来自可再生能源。

Decarbonizing California

with
Renewable
Natural Gas
Transportation



For the first time ever, California fleets fueled with in-state bio-CNG were **carbon-negative for 2020**, based on an annual average carbon intensity score of **-5.845 gCO₂e/MJ**, the lowest of any motor fuel in use including renewable electricity. 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: California Air Resources Board (CARB), LCFS Pathway Certified Carbon Intensities.

Making a real difference...

2020 CA NGV Fuel Use
164.8 Million DGE Total

In 2020, **92%** of all on-road fuel used in natural gas vehicles in California was RNG

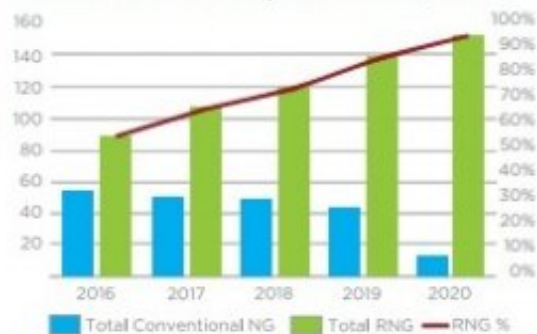
Renewable Natural Gas
152.4 Million DGE

Conventional Natural Gas
12.4 Million DGE

92%

Note: total 2020 on-road motor fuel use volumes in California were lower than 2019 volumes due to COVID pandemic impacts.

RNG Growth in California in Diesel Gallon Equivalents (DGEs)



RNG use as a transportation fuel in California has increased **177%** over the last five years. In 2020 alone, **1.83 million tons** of carbon dioxide equivalent (CO₂e) was displaced.

Note: DGE = diesel gallon equivalent. Natural gas figures from CARB's Local Carbon Fuel Standard Reporting Tool Quarterly Summary at <https://www3.arb.ca.gov/fuels/lcfs/lcfsquarterlysummary.htm>. Greenhouse gas emissions and associated carbon dioxide equivalent (CO₂e) metric tons calculated from data reported under CARB's Low Carbon Fuel Standard program using RNG carbon intensity values of -5.845 for bio-CNG and 54.94 for bio-LNG based on 2020 annual averages and then adjusted for energy efficiency rating (EER).

Put into Perspective, California's use of RNG as a Transportation Fuel Last Year...


Lowered GHG emissions equivalent to **4,593,806,532** miles driven by the average passenger car


That's equal to **7,002,753** trips along the Pacific Coast Highway (SR1)


Reduced CO₂ emissions equal to **205,679,419** gallons of gasoline consumed


or the energy use of **220,118** CA homes in one year


Sequestered carbon equal to growing **30,224,267** tree seedlings for ten years


or **2,239,469** acres of CA forests for one year

Note: Assumes 1,827,873 metric tons of CO₂e reduced in 2020 through increased RNG usage calculated using CARB's LCFS carbon intensity numbers. GHG equivalency results calculated using the U.S. EPA's calculator. CA State Route 1 length calculated at 656 miles.

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NGVAMERICA
Natural Gas Vehicles for America



Supporting Partners:



CALIFORNIA NATURAL GAS VEHICLE PARTNERSHIP



California Natural Gas Vehicle Coalition

2020年，在加州使用RNG作为汽车燃料，共消除了183万吨二氧化碳当量(CO₂e)。通过数据分析，去年加州的RNG汽车燃料使用情况如下：

- 降低了温室气体排放，减排量相当于普通轿车行驶近46亿英里的温室气体排放量。

- 消除了二氧化碳排放，相当于在一年内减少2.057亿加仑汽油的二氧化碳排放或220,118户加州家庭的能源使用。
- 封存碳，相当于十年间种植了近3020万棵树苗，或224万英亩森林一年的固碳量。

美国政府已经为未来十年设定了一个非常积极的脱碳目标。要实现2030年温室气体排放减少50%至52%的目标，就必须采用成本效益更高的负碳解决方案，比如目前已上市的RNG卡车，以实现显著的减排效益。

（原文来自：生物质杂志 全球生物质能源网、新能源网综合）

原文地址：<http://www.china-nengyuan.com/news/169970.html>