U.S. DEPARTMENT of ENERGY | Office of Critical Minerals and Energy Innovation

Natural Gas Vehicles and Fueling Infrastructure

Find research-based information on the Alternative Fuels Data Center website

Learn about the technology behind natural gas vehicles and their fueling infrastructure, explore the benefits and considerations of using natural gas to power vehicles, and access tools and datasets.

AFDC.ENERGY.GOV/FUELS/NATURAL-GAS

Considering a Natural Gas Vehicle?

Natural gas vehicles (NGVs) perform well for high-mileage (high-fuel use) applications, especially for fleets with central fueling or routes near natural gas fueling stations. The advantages of natural gas include its domestic production, established distribution network, and relatively low cost.

NGVs can use either conventional natural gas or renewable natural gas (RNG). Conventional natural gas is drawn from wells, often extracted in conjunction with crude oil production. RNG is produced from decaying organic materials like municipal solid waste from landfills, sewage from wastewater treatment plants, animal manure, or food waste. After impurities are removed, RNG is ready for use in vehicles or for distribution through existing pipelines.

Natural gas is compressed (CNG) or liquefied (LNG) for use as a vehicle fuel. NGVs are similar to gasoline or diesel vehicles with regard to power, acceleration, and cruising speed. Historically, the average retail price of natural gas has been lower and more stable than that of gasoline and diesel.

Dive Into the Details: What You'll Find on the AFDC

- Basics of natural gas production and distribution, and the differences between conventional and renewable natural gas
- Considerations such as cost, vehicle performance, infrastructure availability, and energy security
- Natural gas fueling station locations and types, plus information on installation and safety
- Natural gas vehicle types, availability, and conversions

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For more information, visit: **afdc.energy.gov**

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