
ALTERNATIVE FUELS and VEHICLES

Alternative Fuel Vehicle Choices

The national economy operates on the principle of supply versus demand. The demand for alternative fuel vehicles (AFVs) and cleaner burning fuels must come from the consumer before an affordable supply will be provided by the manufacturer. Changing consumer purchasing patterns via public education can lead to an increased demand for cleaner fuels, reduced emissions, improved air quality, and reduced numbers of gasoline fueled vehicles sitting in America's driveways.

When you purchase and use alternative fuel vehicles, you'll be creating a marketplace for the new alternative fuel vehicle technologies and alternative fuels, as well as generating experience necessary to the technologies success. Ultimately, this will lead to wider choices of vehicles and clean, economical fuels.

Despite the differences in each alternative fuel vehicle and alternative fuels, they all provide the foundation for a reduced dependence on foreign oil and for cleaner air.

Dedicated AFVs run only on one alternative fuel. Often the consumer's choice of vehicle is determined by the availability of the fuel such as propane, or natural gas.

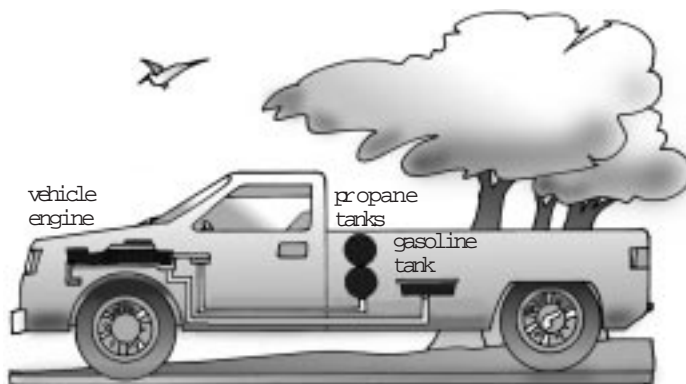


Natural gas vehicles (NGVs) are available in all sizes and models, and are among the most popular dedicated alternative fuel vehicles.

Dual-fuel vehicles operate on combinations of an alternative fuel with gasoline or diesel fuel, which are injected into the combustion chamber at the same time. Two separate fuel tanks are required. The dual-fuel option is used mostly in heavy-duty or diesel engines.

Flexible fuel vehicles run on gasoline, on an alternative fuel, or on a combination of the two, and only one fuel system is required. Ethanol and methanol vehicles are flex-fuel vehicles and run on either gasoline or a mixture of gasoline and an alcohol fuel.

Bi-fuel vehicles operate on either an alternative fuel or conventional gasoline, using only one of the fuels at a time. Two separate fuel tanks are required. Bi-fuel vehicles are advantageous for drivers who do not always have convenient access to an alternative fuel fueling station.



This bi-fuel vehicle operates on propane or gasoline.

Various incentives are available to help defray the additional cost of an alternative fuel vehicle, including tax credits, grants from local Clean Cities coalitions, fuel tax exemptions, manufacturer's factory rebates and lower fuel costs. For a more detailed list of possible incentives go online to www.cities.doe.gov or call 1-800-CITIES.

Natural Gas Vehicles

Natural gas is a mixture of hydrocarbons and is produced either from gas wells or in conjunction with crude oil production. The interest for natural gas as an alternative fuel stems from its clean burning qualities, its domestic availability, its commercial use, and its cost. Natural gas is stored on board a vehicle in either a compressed gaseous state (CNG) or in a liquefied state (LNG).

Natural gas vehicles (NGVs) (more than one million worldwide) can be refueled at more than 1200 commercial stations nationwide with a "quick-fill" system. A natural gas vehicle is filled by an individual at a self-service station in much the same way a vehicle is filled with a traditional fuel.

Individual home compressors use a "slow-fill" system for overnight refueling. The small compressor is usually located in a home's garage area and connected directly to the natural gas supply in the house. Costs for a compressor for use with a single vehicle in private homes varies depending on the design, technology and geographic region where you live.