

FACTS ABOUT**E85 and Flexible Fuel Vehicles****E85**

E85 is a nominal blend of 85 percent ethanol and 15 percent gasoline that is an alternative fuel for automobiles. Today's California reformulated gasoline contains from 6 to 10 percent ethanol. The actual ethanol content of E85 can vary depending upon the month of the year and geographical location, and may be as little as 70 percent ethanol. E85 is used in flexible fuel vehicles (FFVs).

Flexible Fuel Vehicles

Flexible Fuel Vehicles are vehicles that can run on both gasoline and E85. Fueling an FFV with E85 helps reduce our dependence on petroleum and can reduce your carbon footprint. Several manufacturers offer FFVs; for a list of current and previous model year FFVs, see the National Ethanol Vehicle Coalition web page at www.e85fuel.com/e85101/flexfuelvehicles.php.

The Number of FFVs on the Road is Increasing; So is the Number of E85 Stations

There are two major rulemakings that will encourage the use of FFVs and increase the number of E85 stations: The Federal Renewable Fuel Standard (RFS) and California's Low Carbon Fuel Standard. The RFS mandates the volume of ethanol that needs to be used for transportation into the year 2022. In order to use all of the ethanol produced under this mandate, more FFVs will need to be fueling with E85. The California Energy Commission recently projected a population of 4.2 million FFVs in California in 2020. Many of the new cars/light trucks offered by U.S. manufacturers are expected to be FFVs after 2012.

Fueling with E85

As E85 becomes widely available over the next decade, owners will be able to choose an alternative that reduces global warming, offsets gasoline use, and provides California with greater environmental security. E85 is typically priced lower than gasoline, but is not necessarily always a better deal. This is because FFVs typically get about 20-30% fewer miles per gallon when fueled with E85 compared to gasoline. Therefore, E85 should be priced 20 – 30% less than gasoline to achieve equivalent per mile costs. Otherwise, motorists will see little difference when using E85 versus gasoline. For more information about E85's energy content and other fuel characteristics, emissions, and an FFV cost calculator, see the U.S. Department of Energy Alternative Fuels & Advanced Vehicles Data Center web page at www.afdc.energy.gov/afdc/ethanol/e85.html.

Sources for Ethanol Production

Ethanol is an environmentally and economically promising fuel. It can be produced locally, creating jobs and keeping dollars in the state. Ethanol is produced from a variety of sources, including corn, which is currently the source for most ethanol made in the U.S. New technology is emerging to create ethanol from plant-based (cellulosic) waste material, such as yard waste. Cellulosic ethanol offers additional greenhouse gas emission benefits over grain-based ethanol and scientists are working on making it a reality. Additionally, the use of waste materials would reduce the size of our landfills.

Advantages & Disadvantages of E85

Advantages	Disadvantages
Reduces the use of imported petroleum	Can only be used in FFVs
More resistant to engine knock	Lower energy content, resulting in fewer miles per gallon
Added vehicle cost is very small	Limited availability
Fuel diversity	Fuel price can vary
Potential to significantly reduce greenhouse gas emissions	
FFVs have comparable emission standards to gasoline vehicles	

For More Information

Please contact the ARB Public information office at (800) 242-4450.

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