Alternative Fuels and Advanced Vehicle Technologies

U.S. Department of Energy
Energy Efficiency and Renewable Energy

Bringing you a prosperous future where energy is clean, abundant, reliable, and affordable
The U.S. Department of Energy (DOE), through its Office of Energy Efficiency and Renewable Energy (EERE), leads a multi-part effort to increase the use of alternative fuels in vehicles and to expand advanced vehicle technologies that will reduce our nation’s dependence on petroleum imports and lessen the effects of air pollution.

Alternative fuels include natural gas, ethanol, methanol, hydrogen, electricity, biodiesel, and liquefied petroleum gas, also commonly called propane, and P-Series fuels. Vehicles that run on these fuels come in all sizes and body styles including passenger cars, minivans, pickup trucks, heavy trucks, transit buses, and utility vehicles. Alternative fuels are available nationwide in a growing network of public and private fueling facilities.

Other advanced vehicle technologies and practices that can reduce dependence on petroleum imports include increased use of hybrid vehicles, improved idle reduction technologies, encouragement of fuel economy practices, and expanded use of alternative fuel blends.

Many businesses, government agencies, and individual motorists choose alternative fuels and advanced vehicles voluntarily, without mandates. Some see economic advantages, which are often enhanced by tax incentives enacted at the federal, state, and local level. Some adopt alternative fuels out of a desire to help the environment or strengthen local or national energy security.

To help you choose and use alternative fuels or find out more about advanced vehicle technologies, EERE offers a variety of public information resources. They are comprehensive, free, and easily accessible on the Web or by phone.
All the information and assistance offered by the Clean Cities Program come together in this online resource. Clean Cities promotes alternative fuels and infrastructure, and advanced technology vehicles and practices. In more than 80 areas across the country, public and private stakeholders have joined together to form Clean Cities coalitions.

The Clean Cities Web site describes the program in detail, and tells you how to find an existing coalition or start a new one. It provides numerous stories of success with alternative fuels in government fleets and private industry, plus abundant technical information about alternative fuel and advanced technology vehicles and how they work. The site includes tools for fleets, consumers, and Clean Cities coordinators, with advice about funding opportunities, technical support for your toughest problems, and more. Updated regularly is a listing of contact information about local coalitions and coordinators, industry representatives, and DOE and other government agencies and officials.

An ever-growing resource of information related to alternative fuels and advanced technology vehicles, the AFDC is widely used by government, industry, and private individuals. You can search the online document database by concept, keyword, or title. The Web site includes several pages devoted to popular topics such as specific fuels, AFVs in general, and fleet compliance. Regularly updated are a “What's New” section with industry news, and a schedule of industry events. You'll find a comprehensive list of links to industry periodicals and Web sites, and other DOE resources listed in this brochure.

Approximately 3,750 publicly accessible documents are stored in the AFDC. Additionally, its search function locates other alternative-fuel related sites and documents that don’t reside on the AFDC.

The Station Locator lets you select a fuel type, then find refueling stations within the radius you choose. Using the Route Mapper, you can enter the start and end points of a cross-town or cross-country trip, then locate stations along the way. Along with a map, you’ll see the names and phone numbers of all your fueling stops.
To ask specific questions or to learn more about alternative fuels and the Clean Cities Program, you can call or email this free Hotline. Its trained experts respond to thousands of inquiries every year, helping people find information that best meets their needs. All the fact sheets, brochures, technical papers, and publications available in the AFDC can be ordered from the Hotline and mailed free of charge. It is a great source of contacts, with the names, addresses, and phone numbers of other professionals who can answer your questions in greater depth.

For consumers and fleet operators considering the purchase of alternative fuel vehicles, an excellent first stop is the online Vehicle Buyer’s Guide. The site offers a step-by-step process in which you choose the vehicle type, manufacturer, and specific fuel. Cost information and refueling station and dealer locations are also provided. In addition, the site includes state-by-state information on incentives and laws regarding AFV purchases. Along with passenger cars and light trucks, the Vehicle Buyer’s Guide covers heavy duty vehicles including trucks and transit buses. Also covered (in the consumer section) are advanced technology vehicles such as hybrids and neighborhood-electric vehicles. The guide is updated annually.

Are you covered by the Energy Policy Act of 1992? EPAct requires many government agencies to purchase alternative fuel vehicles as a specific portion of their overall annual light-duty vehicle acquisitions. Also covered are certain fleets in private industry—specifically those operated by alternative fuel providers. For more information on complying with AFV fleet acquisition requirements, visit the EPAct Web site.

Beyond alternative fuels, DOE’s FreedomCAR and Vehicle Technologies site provides a broad look at transportation. You can download data and publications. Read about emerging technologies such as hydrogen fuel cells, and link to research partners in industry as well as the national laboratories serving the U.S. Department of Energy. For an always-interesting tidbit about transportation, check out the Fact of the Week.
Other Valuable Resources:
You can learn more about alternative fuels, AFVs, and other advanced vehicle technologies at these Web sites, maintained by the U.S. Department of Energy.

U.S. Department of Energy
www.energy.gov

Energy Information Administration
www.eia.doe.gov

Energy Efficiency and Renewable Energy Network
www.eere.energy.gov

DOE/EPA Fuel Economy Guide
www.fueleconomy.gov

Hydrogen, Fuel Cells and Infrastructure Technology
www.eere.energy.gov/hydrogenandfuelcells

Biofuels for Sustainable Transportation
www.eere.doe.gov/biomass.html
A Strong Energy Portfolio for a Strong America

Energy efficiency and clean, renewable energy will mean a stronger economy, a cleaner environment, and greater energy independence for America. Working with a wide array of state, community, industry, and university partners, the U.S. Department of Energy’s Office of Energy Efficiency and Renewable Energy invests in a diverse portfolio of energy technologies.

Prepared by the National Renewable Energy Laboratory
NREL is a U.S. Department of Energy National Laboratory operated by Midwest Research Institute and Battelle

DOE/GO-102004-1840
Revised February 2004

Neither the United States government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States government or any agency thereof.