



Alternative Fuels and Advanced Vehicles: Resources for Fleet Managers

April 12, 2011

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Golden, CO

Resources for implementing alternative fuels & advanced vehicles

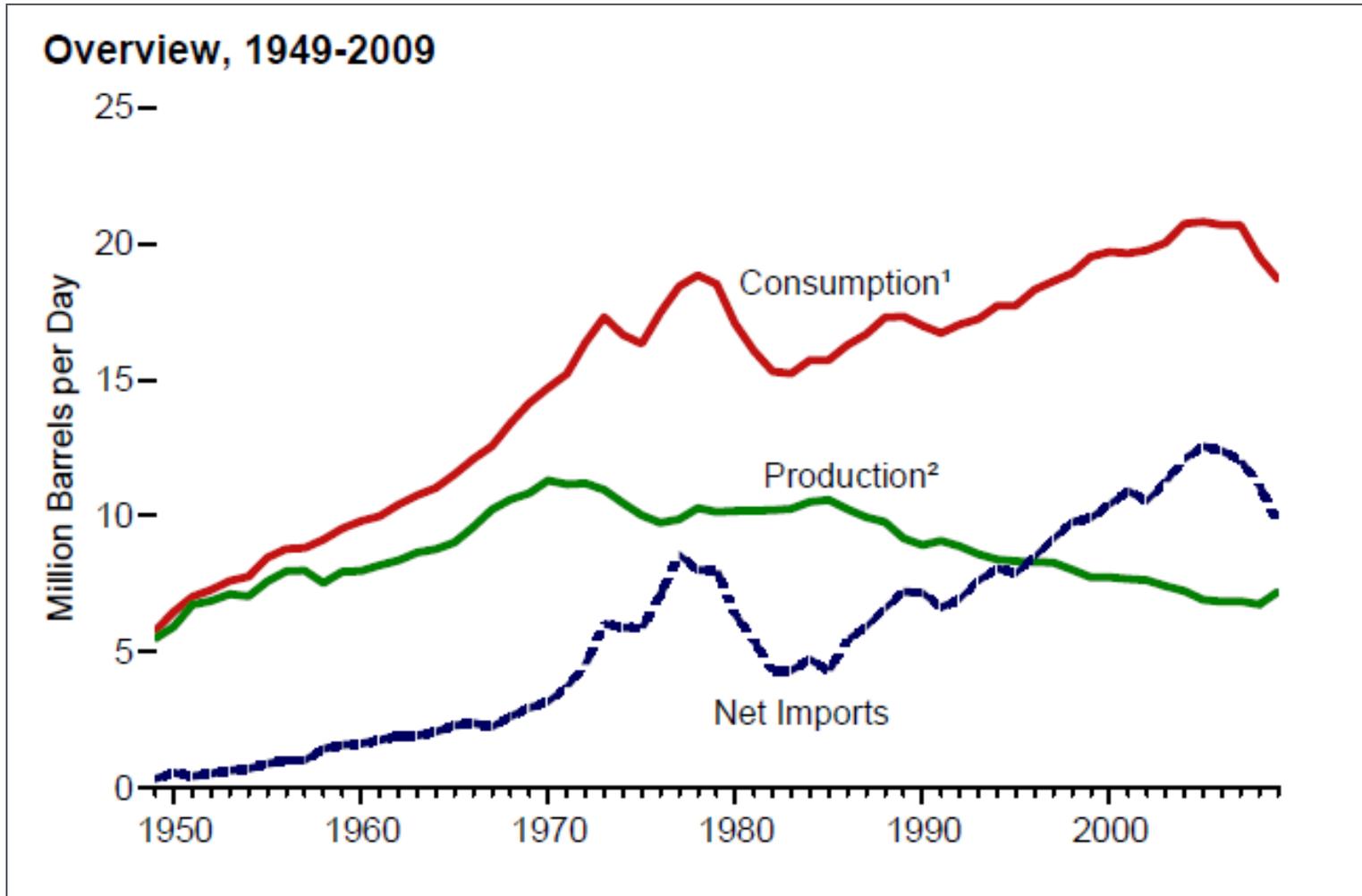
- Context and motivations
- Step 1: Learn about the options
- Step 2: See what others have done
- Step 3: Are there regulations or incentives that affect you?
- Step 4: Set baseline and goal
- Step 5: Explore options for your fleet
- Step 6: Get help
- Feedback & Discussion



Clean Cities Mission

To advance the energy, economic, and environmental security of the U.S. by supporting local decisions to adopt practices that contribute to the reduction of petroleum consumption in the transportation sector.

- Sponsored by the DOE's Office of Energy Efficiency and Renewable Energy's Vehicle Technologies Program
- Provides a framework for businesses and governments to work together as a coalition to enhance local markets
- Provides a way to coordinate activities, identify mutual interests, develop regional economic opportunities, and improve air quality



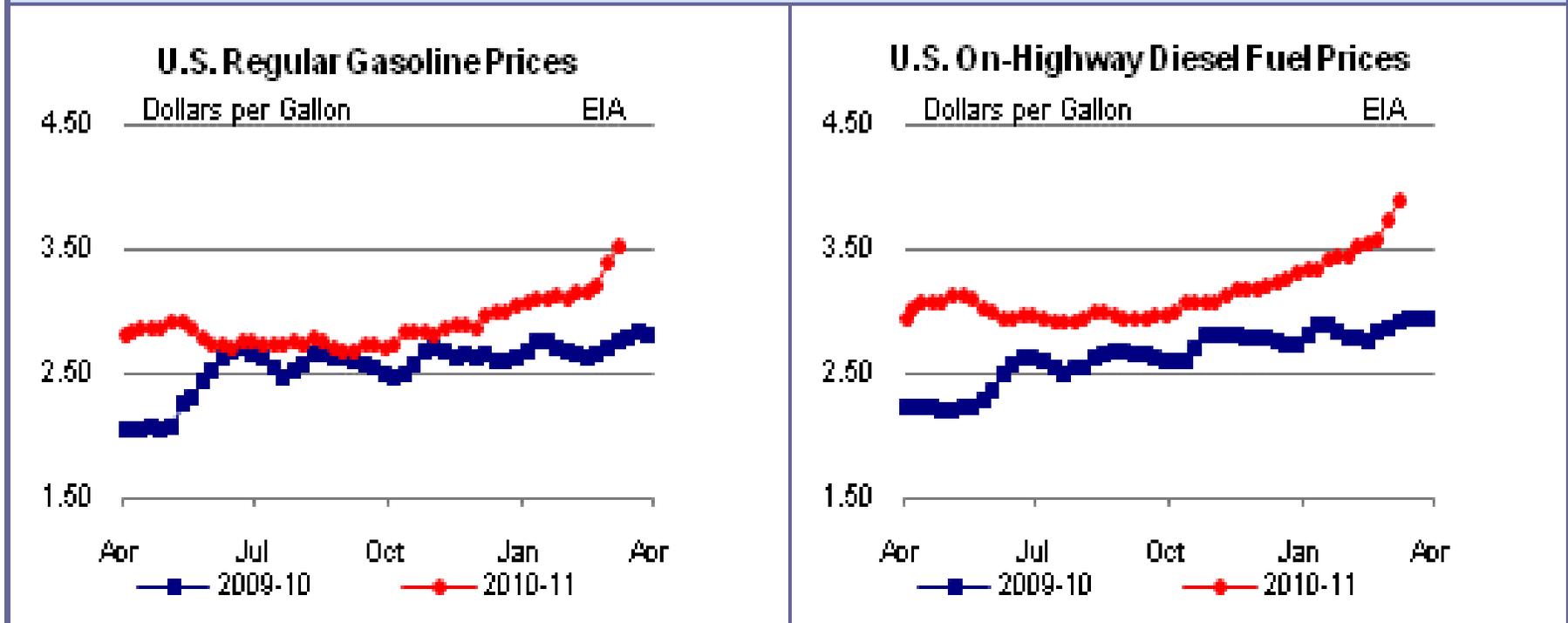
Source: [Annual Energy Review 2009](#). Energy Information Administration.

- 87 active coalitions in 45 states
- Coalitions cover 75% of U.S. population
- 8,400+ public, private stakeholders
- Coalitions generate 18:1 leveraging of Federal investment¹



¹<http://www1.eere.energy.gov/cleancities/pdfs/49389.pdf>

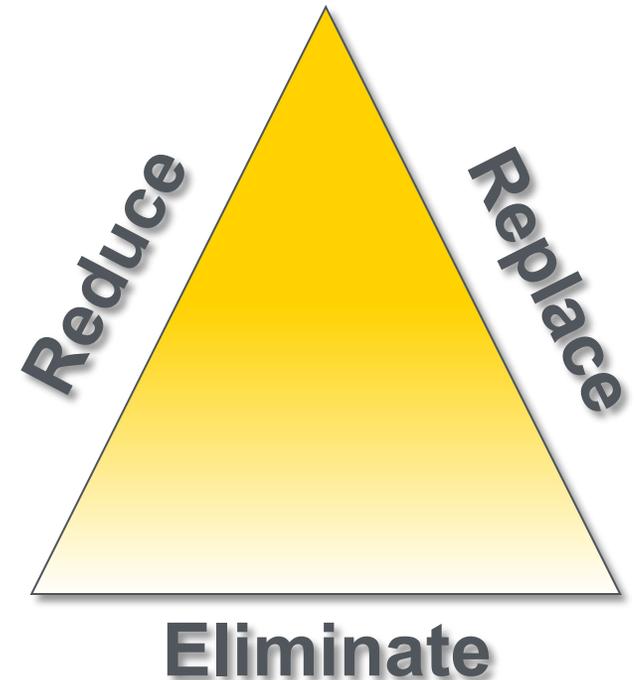
U.S. Gasoline and Diesel Fuel Prices, 03/07/11



Source: <http://www.eia.doe.gov/oog/info/gdu/gasdiesel.asp>

- Besides cost, motivators include:
 - Reducing emissions of air pollutants or greenhouse gases
 - Meeting Federal or state mandates
 - Responding to corporate goals
 - Supporting regional economy
 - Promoting green image

- **Reduce** by promoting energy efficiency in vehicles through advanced technologies and more fuel efficient vehicles.
- **Replace** petroleum with alternative fuels and low-level blends.
- **Eliminate** by promoting idle reduction, combining or eliminating trips, and other mileage reduction measures.



Alternative Fuels and Vehicles

- Biodiesel (B100)
- Electricity
- Ethanol (E85)
- Hydrogen
- Natural gas
- Propane

Fuel Blends

- Biodiesel/diesel blends (B2, B5, B20)
- Ethanol/gasoline blends (E10)
- Hydrogen/natural gas blends (HCNG)

Fuel Economy

- Fuel efficiency
- Behavior changes
- Vehicle maintenance initiatives
- Reducing vehicle miles traveled (VMT)

Hybrids

- Light- and heavy-duty HEVs
- PHEVs

Idle Reduction

- Medium and heavy-duty trucks
- School buses
- Truck stop electrification

Step 1: Learn About the Options



U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

Clean Cities

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U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

Alternative Fuels & Advanced Vehicles Data Center

About the AFDC | Fuels | Vehicles | Fleets | Incentives & Laws | Data, Analysis & Trends | Information Resources

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

Clean Cities strives to advance the nation's economic, environmental, and energy security by supporting local decisions to adopt practices that contribute to the reduction of petroleum consumption. Clean Cities has a network of approximately 90 volunteer coalitions, which public/private partnerships to promote alternative fuels and advanced vehicles, fuel blends, fuel economy, hybrid vehicles, and idle reduction.

Clean Cities is part of the Office of Energy Efficiency and Renewable Energy's [Vehicle Technologies Program](#).

Select Coalition-Related Information

- Starting Coalition
- Coalition Location
- Program Contact
- Coordinator Contact

What is Clean Cities? Fact Sheet (PDF 2 MB) | Download Adobe Reader

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The Alternative Fuels and Advanced Vehicles Data Center (AFDC, formerly known as the Alternative Fuels Data Center) provides a wide range of information and resources to enable the use of alternative fuels (as defined by the Energy Policy Act of 1992), in addition to other petroleum reduction options such as advanced vehicles, fuel blends, idle reduction, and fuel economy.

This site is sponsored by the U.S. Department of Energy's [Clean Cities](#) initiative.

Data, Analysis, and Trends
Our [Data, Analysis, and Trends](#) section provides industry trends and facts based on data analysis.

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www.fueleconomy.gov

the official U.S. government source for fuel economy information

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Find a Car | Tips | Save Money | Benefits | Your MPG | Hybrids & Electrics | Diesels | Alternative Fuels | Extreme MPG | More...

Find and Compare Cars

Gas mileage (MPG), fuel cost, greenhouse gas emissions, energy impact score, air pollution ratings, and safety information for new and used cars and trucks

Compare Side-by-Side | Power Search

Your MPG

Calculate or Share Your MPG | View Estimates from Drivers Like You | Log-in or Register

Gas Mileage Tips..

Driving More Efficiently | Keeping Your Car in Shape | Planning and Combining Trips | Choosing an Efficient Car

Save Money...

Hybrid Vehicles & Electric Vehicles

New and Upcoming Hybrids | Plug-in Hybrids | Electric Vehicles

Diesel Vehicles and Fuels

What's new on fueleconomy.gov?

Fuel Economy Guide | 2011 Most Efficient Vehicles | 2011 Best in Class | Find and Compare Cars Updated | 2011 Fuel Economy Guide | Help Design the New Fuel Economy Labels

In the news...

Conventional gas-powered cars starting to match hybrids in fuel efficiency - The Washington Post

Toyota Downsizes Prius Wagon's Seating Capacity for U.S. - The New York Times

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Fueleconomy.gov's Top Ten Lists

Top 10 | 2011 Most Efficient | Fuel Economy Myths | EPA Fuel Sippers (All Years)

cleancities.energy.gov

afdc.energy.gov

fueleconomy.gov

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The Alternative Fuels and Advanced Vehicles Data Center (AFDC, formerly known as the Alternative Fuels Data Center) provides a wide range of information and resources to enable the use of alternative fuels (as defined by the [Energy Policy Act of 1992](#)), in addition to other petroleum reduction options such as advanced vehicles, fuel blends, idle reduction, and fuel economy.

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Our [Data, Analysis, and Trends](#) section provides industry trends and facts based on data analysis.

Alternative Fuel Portals

- [Biodiesel](#)
- [Electricity](#)
- [Ethanol](#)
- [Hydrogen](#)
- [Natural Gas](#)
- [Propane](#)

[More Fuels Information >](#)

Vehicle Information

- [Conversions](#)
- [Electric Drive Vehicles](#)
- [Emissions](#)
- [Fuel Economy](#)
- [Idle Reduction](#)

[More Vehicle Information >](#)

AFDC Tools

- [Light-Duty Vehicle Search](#)
- [Heavy-Duty Vehicle Search](#)
- [Alternative Fueling Station Locator](#)
- [Incentives & Laws Search](#)
- [Publications Search](#)

Alternative Fuels & Advanced Vehicles Data Center

Alternative & Advanced Fuels

Biodiesel
Electricity
Ethanol
Hydrogen
Methanol
Natural Gas
Propane
Ultra-low Sulfur Diesel
Emerging Fuels
Stations
Fuel Properties
Fuel Blends
Fuel Prices

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More than a dozen alternative and advanced fuels are in production or use today. Although government-regulated and voluntary private fleets are the primary users of these fuels, consumers are increasingly more interest in them. Using these fuels is critical to reduce U.S. dependence on foreign oil and improve air quality.

Alternative Fuels

[Alternative fuels](#) defined by the [Energy Policy Act of 1992](#) that are or have been commercially available for vehicles include:

- [Biodiesel](#)
- [Electricity](#)
- [Ethanol](#)
- [Hydrogen](#)
- [Methanol](#)
- [Natural Gas](#)
- [Propane](#)

Other Fuels

Several emerging fuels are currently under development. Many of these fuels are also considered alternative fuels and may have other benefits such as reduced emissions or increased energy security.

- [Biobutanol](#)
- [Biogas](#)
- [Biomass to Liquids](#) (BTL)
- [Coal to Liquids](#) (CTL)
- [Fischer-Tropsch Diesel](#)
- [Gas to Liquids](#) (GTL)
- [Hydrogenation-Derived Renewable Diesel](#) (HDRD)
- [P-Series](#)
- [Ultra-Low Sulfur Diesel](#)

Fuel Topics

Learn about these additional alternative and advanced fuel topics:

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Plug-in Ready?
Read case studies featuring metro areas preparing for electric vehicles. [▶](#)

BioFuels Atlas
Compare biofuels and feedstocks by location. [▶](#)

Clean Cities MotorWeek Videos [▶](#)

TransAtlas
Explore alternative fuel and vehicle data. [▶](#)

Mobile Fueling Station Locator [▶](#)

Petroleum Reduction Planning Tool [▶](#)

Alternative Fueling Station Locator [▶](#)

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NPGA SE Convention & International Propane Expo | 04/16/2011 - 04/18/2011 | More Events

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National Clean Fleets Partnership

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Data, Analysis, and Trends

Our [Data, Analysis, and Trends](#) section provides industry trends and facts based on data analysis.

Alternative Fuel Portals

- [Biodiesel](#)
- [Electricity](#)
- [Ethanol](#)
- [Hydrogen](#)
- [Natural Gas](#)
- [Propane](#)

Vehicle Information

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- [Emissions](#)
- [Fuel Economy](#)
- [Idle Reduction](#)

AFDC Tools

- [Light-Duty Vehicle Search](#)
- [Heavy-Duty Vehicle Search](#)
- [Alternative Fueling Station Locator](#)
- [Incentives & Laws Search](#)
- [Publications Search](#)

Alternative & Advanced Vehicles



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- Natural Gas Vehicles
- Propane Vehicles
- Hybrid, Plug-in Hybrid, & All-Electric Vehicles**
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 - Benefits
 - Availability
 - Emissions
 - Charging
 - Batteries
 - Maintenance & Safety
 - Deployment
 - Research & Development
 - Related Links
- Fuel Cell Vehicles
- Diesel Vehicles
- Conversions
- Resale
- Technician Training
- Idle Reduction
- Fuel Economy
- Emissions

Hybrid, Plug-in Hybrid, and All-Electric Vehicles

Hybrid electric vehicles (HEVs), plug-in hybrid electric vehicles (PHEVs), and all-electric vehicles (EVs)—also called electric drive vehicles collectively—use electricity either as their primary fuel or to improve the efficiency of conventional vehicle designs.

Basics

Learn how electric drive vehicles work.

Benefits

Explore the benefits of electric drive vehicles.

Availability

Discover which electric drive vehicles are available commercially.

Emissions

Learn how emissions and fuel costs are calculated for electric drive vehicles.

Charging

Explore ways to charge electric drive vehicles at home and in public.

Batteries

Learn about energy-storage devices and recycling.

Maintenance and Safety

Learn about maintaining electric drive vehicles and their batteries.

Deployment

Learn about deployment and demonstration projects to commercialize electric drive vehicles.

Research and Development

Read about electric drive vehicle studies and trends.

Related Links

Plug-in Hybrid Electric Vehicle Basics



Tax Credits and Incentives

Plug-in hybrids and all-electric vehicles qualify for a [\\$2,500 to \\$7,500 federal tax credit](#).

Some hybrid electric vehicles qualify for a [light-duty HEV federal tax credit](#).



[Find tax credits and incentives in your state.](#)

Alternative & Advanced Vehicles

Search Help > More Search Options >

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Light-Duty Vehicle Search

Search our light-duty alternative fuel vehicle database to find and compare alternative fuel vehicles and generate printable reports to aid in decision-making.

Cars and Trucks | Low Speed

Fuel Type: Natural Gas (1) | Manufacturer: All | Class: All

Year: 2010 (0) | 2009 (1) | 2008 (1) | 2007 (1) | 2006 (4)

Compare

[Honda Civic GX \(2009\)](#)

Detail

Honda Civic GX (2009)
Fuel: Natural Gas (Dedicated)
Class: Sedan
Fuel Economy: 24 mpg city, 36 mpg highway
Emission Certification: California SULEV, Tier 2 Bin 2
Engine: 4-cyl, 1.8L, SOHC 16-Valve i-VTEC
Transmission: 5-speed automatic
GVWR: 2904 lbs

Dealers: [Locate a dealer](#) or 888-CC-HONDA
Ordering: Orders for the Honda GX are taken anytime during the model year. Honda builds vehicles in advance for anticipated sales. The GX is available in 60-90 days, or 30 days if in current stock.

[Cost Analysis](#)

Select
All | None

Side-by-Side Comparison

Alternative & Advanced Vehicles

Search Help > More Search Options >

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Heavy-Duty Vehicle and Engine Search

Use this tool to get specification and purchasing details on specific vehicles (chassis) or engines. You can also compare selections and generate printable reports to aid in the decision making process.

Vehicles | Engines | Hybrid Propulsion Systems

Manufacturer: Autocar LLC | Fuel Type: LNG | Application: All

Compare

[Autocar LLC - Xpeditor](#)

Detail

Model: Xpeditor
Manufacturer: [Autocar LLC](#)
Manufacturer Phone: 877-973-3486
Application: Refuse
Fuel Type Options: CNG, LNG
GVWR: 66000 lbs
Maximum Seating Capacity: 2
Transmission Make: Allison MD-HD
Transmission Type: Auto
Description: Class 8 trucks built for the refuse business. The Xpeditor includes ergonomically redesigned cabs with dashboard-integrated body switches and controls.

Select
All | None

Side-by-Side Comparison

Compatible Engines:
[B Gas Plus - BG 195](#)

Alternative Fuels & Advanced Vehicles Data Center

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Alternative & Advanced Fuels

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- Electricity
- Ethanol
- Hydrogen
- Methanol
- Natural Gas
- Propane
- Ultra-low Sulfur Diesel

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Alternative Fueling Stations

Alternative fueling stations are located throughout the United States and their availability continues to grow. This page allows you to [find alternative fuels stations](#) near you or on a [route](#), obtain [counts of alternative fuels stations by state](#), view [U.S. maps](#), and more.

The following alternative fuels are included in the mapping application: compressed natural gas (CNG), E85 (85% ethanol, 15% gasoline), propane/liquefied petroleum gas (LPG), biodiesel, electricity, hydrogen, and liquefied natural gas (LNG).

Alternative Fueling Station Mapping Resources

Alternative Fueling Station Locator >

Find alternative fuel stations near a specific location or along a route.



U.S. Maps >

Explore maps displaying alternative vehicle and fuel data.



Total Station Counts >

Obtain total station counts by state and fuel type.



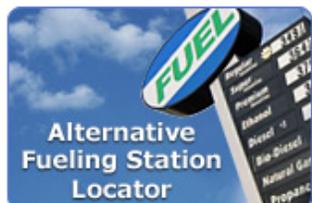
Custom Database Query >

Search the stations database for specific fuel types in specific states or throughout the U.S.



- Emerging Fuel**
- Stations**
- U.S. Maps
- Total Counts
- Custom Query
- Add/Delete a Station
- Fuel Properties
- Fuel Blends

Find Alt Fuel Stations Near You (example)



Alternative Fueling Station Locator

[Help](#) >

Basic Station Search

[Map a Route](#)

[Stations by State](#)

First: Select one or more fuels.

- Biodiesel (B20 and above) 📍
- Compressed Natural Gas (CNG) 📍
- Electric ⌵
- Ethanol (E85) 📍
- Hydrogen 📍
- Liquefied Natural Gas (LNG) ⌵
- Liquefied Petroleum Gas (Propane) 📍

Second: Enter a complete address or zip code.

charlotte, nc

Show stations within a mile radius.

[Advanced Options](#)

[Get Results](#)

[Print](#)

Results 1 to 5 of 5

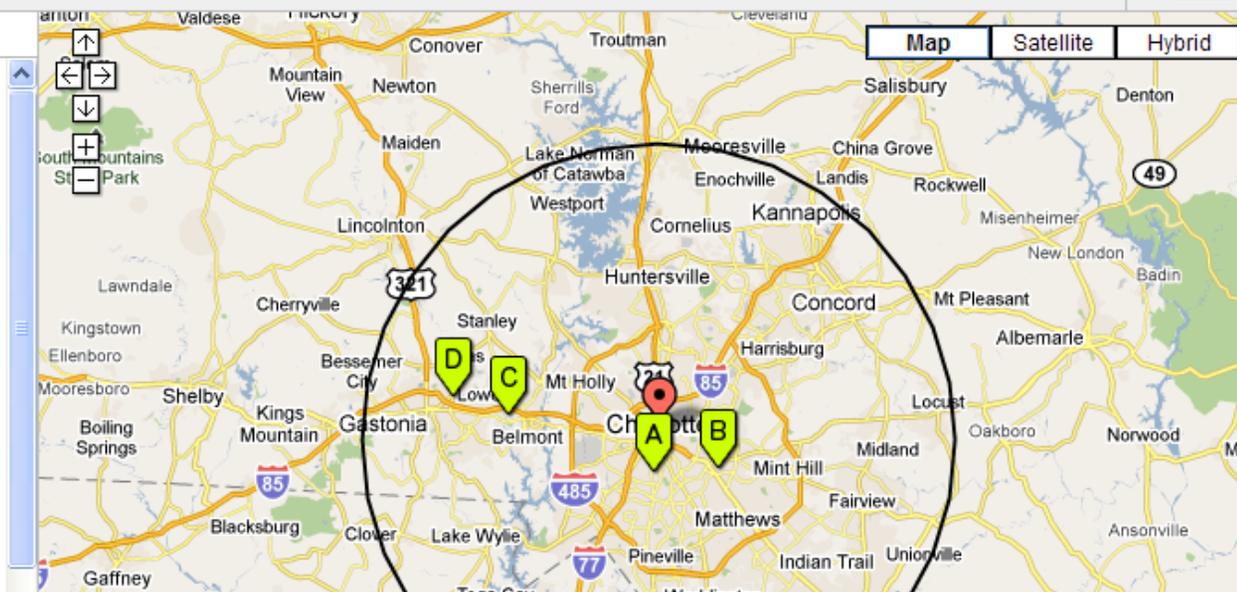
A [Piedmont Natural Gas - Charlotte](#)

Compressed Natural Gas
112 B Verbena St
Charlotte NC 28217
Phone: 🇺🇸 704-309-7536 📞
Distance: 3.7 Miles
Access: Public - credit card at all times

B [Charlotte-Mecklenburg School Bus](#)

Compressed Natural Gas
3901 Craig Ave
Charlotte NC 28211
Distance: 4.3 Miles
Access: Private access only

C [PSCNC Energy](#)



Find Fuel On-the-Go



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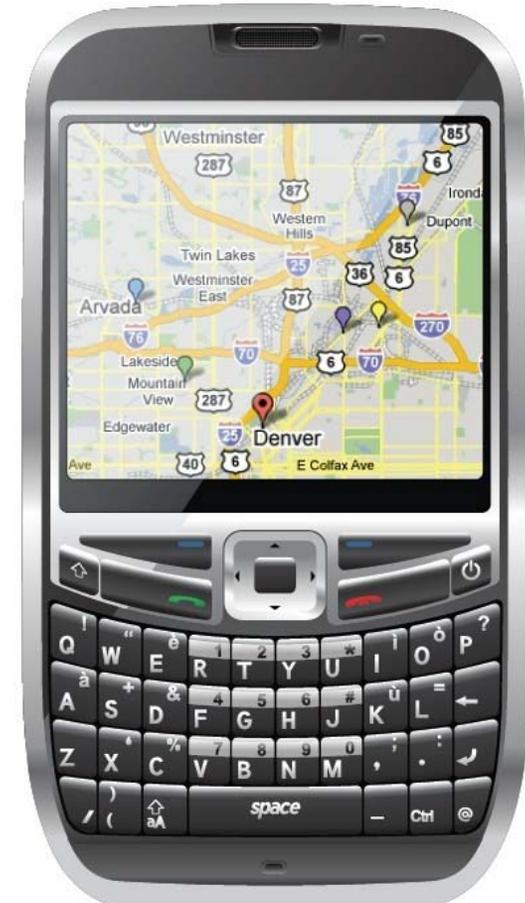
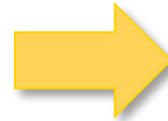
 **Alternative Fueling Station Locator**

Fuel Type
Ethanol (E85)

Location
Enter a city, postal code, or address

Include private stations
Not all stations are open to the public. Choose this option to also search private fueling stations.

Caution: The AFDC recommends that users verify that stations are open, available to the public, and have the fuel prior to making a trip to that location. Some stations in our database have addresses that could not be located by the Station Locator application. This may result in the station appearing in the center of the zip code area instead of the actual location.



<http://www.afdc.energy.gov/cleancities/m/>

Step 2: See What Others Have Done (part 1)



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Fleets

Fleet Experiences

Planning Tool

Technical Assistance

The Alternative Fuels and Advanced Vehicles Data Center (AFDC, formerly known as Alternative Fuels Data Center) provides a range of information and resources to support the use of alternative fuels (as defined in the [Energy Policy Act of 1992](#)), in addition to petroleum reduction options such as alternative vehicles, fuel blends, idle reduction, and more to improve the economy.

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Data, Analysis & Trends
Our [Data, Analysis & Trends](#) section provides industry trends and facts based on data analysis.

Fleet Experiences
Learning from other fleet experiences can be helpful when implementing alternative fuel and advanced technology vehicles in your fleet. This compilation of fleet experiences tells how other fleets are using alternative fuel vehicles, dealing with infrastructure issues, obtaining funding, and more.

Read about fleet experiences by selecting the links in the table below. Choose a link beneath any topic to find experiences related to your area of interest. For a glimpse of how specific fleets utilize alternative fuels and advanced vehicles, visit the [Fleet Applications](#) page.

Vehicle Category	Fuel/Technology Type	Fleet Applications
<ul style="list-style-type: none">Light-Duty VehiclesMedium/Heavy-Duty VehiclesLow Speed VehiclesOff-Road Vehicles	<ul style="list-style-type: none">BiodieselElectricEthanolHybrid ElectricHydrogenNatural GasPropane	<ul style="list-style-type: none">AirportsDelivery VehiclesLong-Haul TrucksParksPolice/Traffic EnforcementRefuse HaulersSchool BusesShuttle BusesTaxisTransit Buses

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MotorWeek
View Clean Cities Success Story Segments ▶

w/afdc/fleets/index.html | Internet

Step 2: See What Others Have Done (part 2)



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FEATURES

- Spanish Resources**
Publications and Web tools available in Spanish
- Propane Tank Overfill Safety Advisory**
- Clean Cities Now**
Your news is now only a click away
- Alternative Fuel Price Report**
- AFDC**

Publications

The resources featured in this section offer useful information about alternative fuels and advanced vehicle technologies.

Publications

Search the publications database to find thousands of reports, presentations, fact sheets, and research papers. You will also find:

- Technology Bulletins:** Get up-to-date technical details on industry-related topics of interest
- Newsletters:** Read newsletters available online or by subscription.
 - [Clean Cities Now](#)
 - [Alternative Fuel Price Report](#)

Videos

View and download videos showcasing alternative fuels and advanced vehicles.

Tools

Access the complete collection of tools, database searches, calculators, and interactive maps available on the Alternative Fuels and Advanced Vehicles Data Center.

Get Information on Data, Analyses, and Trends

Data, Analysis & Trends

Our Data and Trends provides a based analysis

This site is sponsored by the U.S. of Energy's [Clean Cities](#) initiative

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Step 3: Are There Regulations or Incentives That Affect You?



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Federal & State Incentives & Laws

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- State
- Advanced Search
- All Incentives & Laws Sorted by Type

This section allows you to browse and search a database of federal and state laws and incentives related to alternative fuels and vehicles, air quality, fuel efficiency, and other transportation-related topics.

Federal Incentives and Laws

State Incentives and Laws

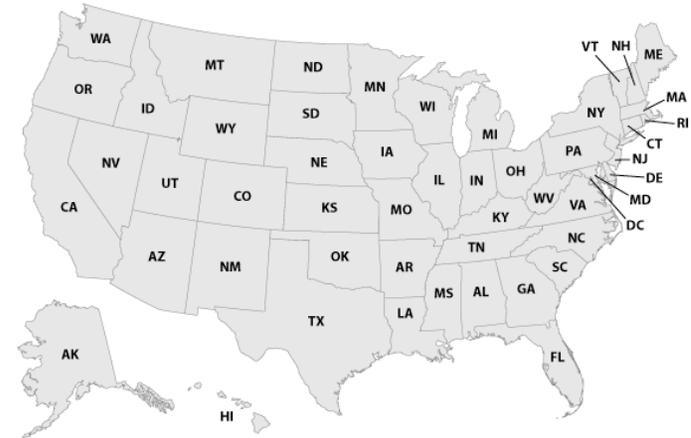
State Incentives and Laws

To view a state's incentives and laws related to alternative fuels and advanced vehicles, select a state from the map or menu below.

Select a State

Go

Advanced Search



Search All Incentives and Laws
Use an advanced search

View Tables of Incentives and Laws
View tables of incentives and laws

Read Key Legislation
Read selected federal transportation laws

Federal Incentives and Laws

Listed below are federal incentives, laws and regulations, funding opportunities related to alternative fuels and vehicles, advanced technologies, or air quality that may be available through Clean Cities [Financial Opportunities](#). For more information, see the [FAQ](#) section or refer to:

- [Key Federal Legislation Summaries](#)
- [Recent Federal Actions](#)

Incentives, Laws, and Programs

The information in this list is updated after legislation is enacted.

Sort by: Category Agency

Incentives

- [Advanced Energy Research Project Grants](#)
- [Advanced Technology Vehicle \(ATV\) Manufacturing Incentives](#)
- [Alternative Fuel Infrastructure Tax Credit](#)
- [Alternative Fuel Tax Exemption](#)
- [Biobased Transportation Research Funding](#)
- [Biomass Research and Development Initiative](#)
- [Cellulosic Biofuel Producer Tax Credit](#)
- [Fuel Cell Motor Vehicle Tax Credit](#)
- [Hydrogen Fuel Excise Tax Credit](#)
- [Hydrogen Fuel Mixture Excise Tax Credit](#)
- [Idle Reduction Equipment Excise Tax Exemption](#)
- [Improved Energy Technology Loans](#)

Are There Regulations or Incentives That Affect You?



Federal Fleets

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Federal Energy Management Program

Federal Energy Management Program
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- Operations & Maintenance
- Greenhouse Gases
- Water Efficiency
- Data Center Energy Efficiency
- Industrial Facilities
- Federal Fleet Management**
 - Federal Requirements
 - Reporting
 - Technologies
 - Infrastructure Development
 - Working Group

Federal Fleet Management

FEMP provides guidance and assistance to help implement Federal legislative and regulatory requirements mandating reduced petroleum consumption and increased alternative fuel use. FEMP's efforts include assisting agencies with implementing and managing energy-efficient and alternative fuel vehicles and facilitating a coordinated effort to reduce petroleum consumption and increase alternative fuel use annually.

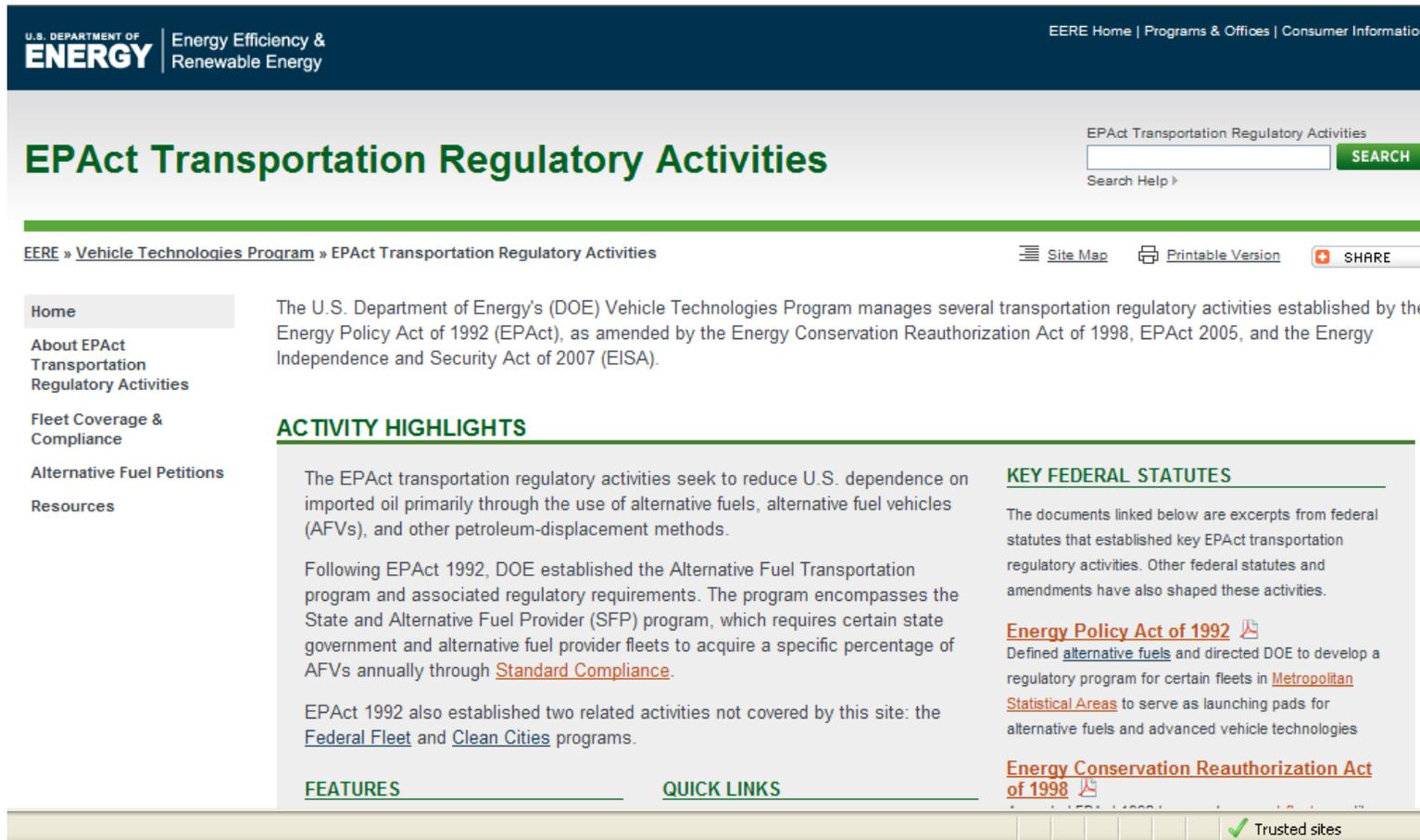
FEMP provides the following information and resources:

- **Federal requirements:** List of current Federal legislation and regulatory requirements for Federal fleets, including related FEMP guidance documents, executive order implementation instructions, and resources.
- **Technology resources:** Information on the latest alternative fuel and advanced vehicle technologies to help Federal agencies meet Federal fleet management requirements.
- **Infrastructure development:** Resources and event information to help Federal agencies locate and use alternative fueling stations, develop onsite fueling capabilities, and/or partner with other entities to leverage the development of retail fueling infrastructure.
- **Data, analysis, and trends:** Alternative Fuels and Advanced Vehicle Data Center (AFDC) Web site page featuring Federal fleet management resources, data, and reports.

Federal Fleet Guidance and Handbook
New [fleet management guidance for Executive Order 13514](#) is now available. FEMP also released an accompanying [Federal Fleet Management Handbook](#) to help Federal agencies plan and implement strategies to meet Federal fleet requirements.

http://www1.eere.energy.gov/femp/program/fedfleet_management.html

State and Fuel Provider (Utility) Fleets



The screenshot shows the EERE website page for "EPAct Transportation Regulatory Activities". The page header includes the U.S. Department of Energy logo and navigation links. The main content area features a search bar, a breadcrumb trail, and a sidebar with navigation links. The main text describes the DOE's Vehicle Technologies Program and lists activity highlights. There are also sections for key federal statutes and features/quick links.

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

EERE Home | Programs & Offices | Consumer Information

EPAct Transportation Regulatory Activities

EPAct Transportation Regulatory Activities

SEARCH

Search Help >

EERE » [Vehicle Technologies Program](#) » EPAct Transportation Regulatory Activities

Site Map | Printable Version | SHARE

Home

About EPAct Transportation Regulatory Activities

Fleet Coverage & Compliance

Alternative Fuel Petitions

Resources

The U.S. Department of Energy's (DOE) Vehicle Technologies Program manages several transportation regulatory activities established by the Energy Policy Act of 1992 (EPAct), as amended by the Energy Conservation Reauthorization Act of 1998, EPAct 2005, and the Energy Independence and Security Act of 2007 (EISA).

ACTIVITY HIGHLIGHTS

The EPAct transportation regulatory activities seek to reduce U.S. dependence on imported oil primarily through the use of alternative fuels, alternative fuel vehicles (AFVs), and other petroleum-displacement methods.

Following EPAct 1992, DOE established the Alternative Fuel Transportation program and associated regulatory requirements. The program encompasses the State and Alternative Fuel Provider (SFP) program, which requires certain state government and alternative fuel provider fleets to acquire a specific percentage of AFVs annually through [Standard Compliance](#).

EPAct 1992 also established two related activities not covered by this site: the [Federal Fleet](#) and [Clean Cities](#) programs.

KEY FEDERAL STATUTES

The documents linked below are excerpts from federal statutes that established key EPAct transportation regulatory activities. Other federal statutes and amendments have also shaped these activities.

[Energy Policy Act of 1992](#)

Defined [alternative fuels](#) and directed DOE to develop a regulatory program for certain fleets in [Metropolitan Statistical Areas](#) to serve as launching pads for alternative fuels and advanced vehicle technologies

[Energy Conservation Reauthorization Act of 1998](#)

FEATURES | QUICK LINKS

Trusted sites

<http://www1.eere.energy.gov/vehiclesandfuels/epact/>

- Inventory fleet: Types/classes of vehicles
 - Number of each type/class
 - Annual miles traveled
 - Annual fuel consumption
 - Annual CO₂ produced
 - 19.4 pounds per gallon gasoline*
 - 22.2 pounds per gallon diesel*

- Set goal for fuel reduction
 - No new vehicle purchases?
 - Next year's acquisitions?
 - 10 year reduction?

* <http://www.epa.gov/oms/climate/420f05001.pdf>

Step 5: Explore Options for Your Fleet



AFDC Petroleum Reduction Planning Tool

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

Bringing you a prosperous future where energy is clean, abundant, reliable, and affordable

AFDC

Alter Fuels & Advanced Vehicles Data Center

About the AFDC | Fuels | Vehicles | **Fleets** | Incentives & Laws | Data, Analysis & Trends | Information Resources | Home

Help | Methodology

Petroleum Reduction Planning Tool

The Petroleum Reduction Planning tool helps fleets, consumers, and business owners create a strategy to reduce conventional fuel use in fleet and personal vehicles. This interactive tool allows users to evaluate and calculate petroleum reductions by choosing one or a combination of the following methods:

- Alternative Fuels
- Hybrid Electric Vehicles
- Biodiesel Blends
- Fuel Economy
- Vehicle Miles Traveled Reduction
- Truck Stop Electrification
- Idling Time Reduction
- Onboard Idle Reduction

Get Started

Guest User: No password is required. Full planning functionality is provided but scenarios cannot be saved.

Registered User: Create and save one or more scenarios, which can be accessed for editing and analysis.

Register Now: Registering allows users to create, save, and edit scenarios for further analysis.

AFDC Home | EERE Home | U.S. Department of Energy
Webmaster | Web Site Policies | Security & Privacy | AFDC Disclaimer | USA.gov
Content Last Updated: 02/04/2009

Help | Methodology | Log In | **Step 1**

Petroleum Reduction Planning Tool

Step 2: Create Your Petroleum Reduction Scenario

Use the color-coded tabs below to choose a [method](#) you would like to explore. Your petroleum reduction scenario can consist of one method or a combination of them. After saving your inputs, switch methods by choosing another tab. To generate a printable version of your scenario, select the Generate Plan button below.

Alternative Fuels | HEVs | Biodiesel Blends | Fuel Economy | **VMT Reduction** | Truck Stop Electrification | Idling Time Reduction | Onboard IR

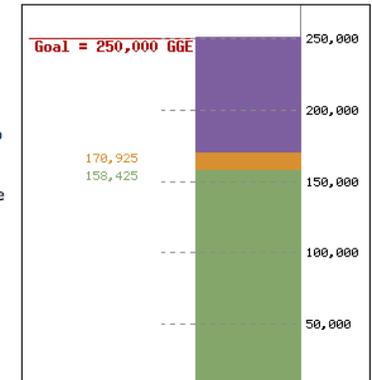
Generate Plan

Petroleum Reduction Plan

Scenario Name: Test2
Annual Petroleum Reduction
Goal: 250000 GGE

Based on your inputs, this is your petroleum reduction goal and associated plan. You may print the information on this page and use it to help you reach your goal. If you are a registered user, this scenario is saved in the system and you may make changes at a future time.

To alter your plan, return to [Step 2](#).



Alternative Fuels

AFV Type	AFV Fuel	Number of AFVs	Average VMT	Fuel Economy (mpg)	Fraction of Fuel Use	GGE Reduced
Large Pickup/Utility	LPG	50	10000	20	1	25000
Midsized Car	E85	100	15000	25	1	47400
HD Truck > 26k lb	CNG	25	15000	5	1	86025
TOTAL GGE						158425

Hybrid Electric Vehicles (HEVs)

Fuel Type	Number of Vehicles	Average VMT	Fuel Economy of new HEVs	Fuel Economy of Old Vehicles	GGE Reduced
Gasoline	75	15000	45	30	12500
TOTAL GGE					12500

Biodiesel Blends

Vehicle Type	Blend Type	Number of Vehicles	Average VMT	Fraction of Fuel Use	Fuel Economy	GGE Reduced
HD Truck > 26k lb	B50	50	15000	1	5	80777
TOTAL GGE						80777

<https://www.afdc.energy.gov/afdc/prep/index.php>

FuelEconomy.gov Web Site

Fuel economy information

- ✓ Side-by-side comparisons
- ✓ Fuel economy ratings
- ✓ Carbon footprint
- ✓ Average annual fuel cost
- ✓ Smart driving tips



The screenshot shows the homepage of www.fueleconomy.gov. At the top, there are navigation links for "Links | FAQ | Site Map | Search | Contacts". Below the navigation is a banner image featuring four different cars: a silver sedan, a white SUV, a silver sedan, and a yellow car. The website is affiliated with the "United States Department of Energy Energy Efficiency and Renewable Energy" and the "United States Environmental Protection Agency".

FIND AND COMPARE CARS...

Gas mileage (MPG), greenhouse gas emissions, air pollution ratings, and safety information for new and used cars and trucks

- [Compare Side-by-Side](#)
- [Advanced Search](#)

YOUR MPG ...

Why is fuel economy important?
Climate Change
Strengthen National Security

Diesel Vehicles
NEW! Tax Incentives
Biodiesel

Gas Mileage Tips
Driving More Efficiently
Drive \$marter Challenge

Hybrid Vehicles
How Hybrids Work
Tax Incentives

Videos
Extreme MPG
Motorweek Videos

Alternative Fuel Vehicles
Flex-Fuel Vehicles

CARS
car allowance rebate system
Trade in your old, inefficient vehicle for a new, more efficient one.
Also known as the "Cash for Clunkers" Program

In the News ...

- [Electric Cars' MPG Conundrum - BusinessWeek](#)
- [More Are Hired to Speed Up the Clunker Reimbursements - The New York Times](#)
- [Scion dealers say tiny iQ is coming in 2010 - AutoWeek](#)

[Disclaimer](#) [More News](#)

Compare GHG Impacts



U.S. DEPARTMENT OF **ENERGY** | Energy Efficiency & Renewable Energy

Alternative Fuels & Advanced Vehicles Data Center

Information Resources

Search Help | More Search Options

- Publications
- Videos
- Tools**
- State Information
- Spanish Resources
- Data Downloads
- Related Links
- Glossary
- Codes & Standards

Tools

On this page you can access the complete collection of tools, database searches, calculators, and interactive maps available on the Alternative Fuels and Advanced Vehicles Data Center. For [mobile tools](#), go to www.eere.energy.gov/m/cc on your mobile device.

Fuels and Stations

- Alternative Fueling Station Locator** - Find alternative fueling station locations.
- Stations Custom Query** - Search the U.S. alternative fueling station database.
- Total Stations Count** - Find the number of fueling stations in the U.S. by fuel type.
- TransAtlas** - Explore an interactive map displaying alternative fuel and vehicle data.
- BioFuels Atlas** - Compare feedstocks and analyze biofuel production by location in this interactive map.
- Fuel Properties Search** - Create custom charts comparing fuel properties.

Fleets

- Fleet Experiences Search** - Browse fleet experience stories by category.
- Petroleum Reduction Planning Tool** - Forecast fleet petroleum reduction.
- GREET Fleet Footprint Calculator** - Evaluate life-cycle petroleum use and GHG emissions.



GREET Fleet Footprint Calculator

Evaluate life-cycle petroleum use and GHG emissions.

GREET_fleet_footprint_calculator_1_1a[2].xls [Compatibility Mode] - Microsoft Excel

	Gasoline (gallons)	Diesel (gallons)	Diesel HEV (gallons)	B20 (gallons)	B100 (gallons)	E85 (gallons)	CNG (cubic feet)	LNG (gallons)	LPG (gallons)	Electricity (kilowatt-hours)	GH2 (cubic feet)	LH2 (gallons)
School Bus	0	0	0	0	0	0	0	0	0	0	0	0
Transit Bus	0	0	0	0	0	0	0	0	0	0	0	0
Shuttle/Paratransit Bus	0	0	0	0	0	0	0	0	0	0	0	0
Waste Hauler	0	0	0	0	0	0	0	0	0	0	0	0
Street Sweeper	0	0	0	0	0	0	0	0	0	0	0	0
Delivery Step Van	0	0	0	0	0	0	0	0	0	0	0	0
Transport/Drayage/Freight Truck	0	0	0	0	0	0	0	0	0	0	0	0
Medium/Heavy Duty Pickup Truck	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance Utility Vehicle	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0
Gasoline Gallon Equivalent Total	0	0	0	0	0	0	0	0	0	0	0	0

Feedstock Source	NG	Petroleum
Ethanol Feedstock Source	1	2
CNG Feedstock Source	1	2
LNG Feedstock Source	1	2
LPG Feedstock Source	60%	40%

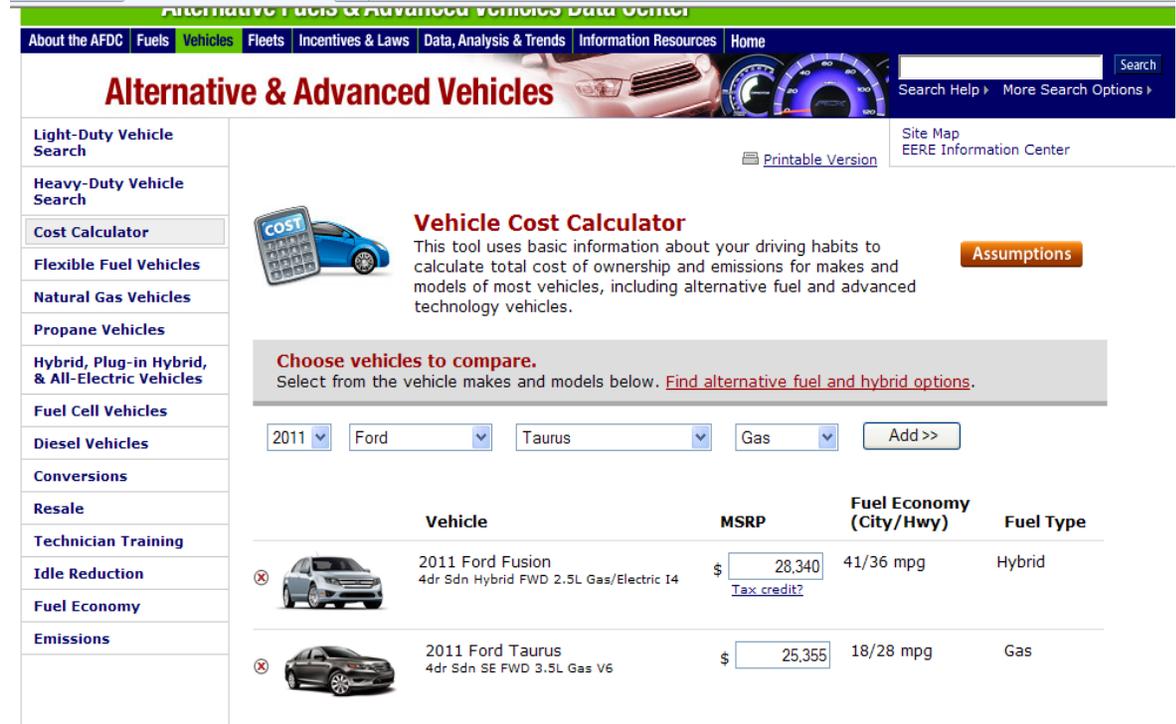
Production Process	1	2	3
Source of Electricity for On-Road Electric Vehicles and H2 Electrolysis	14	11 to 15 - EIA Regions 1 through 13 (see map)	14 - Average U.S. Mix
GH2 Production Process	1	2	3
LH2 Production Process	1	2	3

Vehicle	Gasoline	Diesel	Diesel HEV	B20	B100	E85	CNG	LNG	LPG	Electricity	GH2	LH2	Total
School Bus	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

AFDC Cost Calculator

- ✓ Side-by-side cost comparisons
- ✓ Operating costs
- ✓ Fuel consumption & cost
- ✓ CO₂ emissions

In development—live April 2011



Alternative & Advanced Vehicles

Light-Duty Vehicle Search
Heavy-Duty Vehicle Search
Cost Calculator
Flexible Fuel Vehicles
Natural Gas Vehicles
Propane Vehicles
Hybrid, Plug-in Hybrid, & All-Electric Vehicles
Fuel Cell Vehicles
Diesel Vehicles
Conversions
Resale
Technician Training
Idle Reduction
Fuel Economy
Emissions

Vehicle Cost Calculator
This tool uses basic information about your driving habits to calculate total cost of ownership and emissions for makes and models of most vehicles, including alternative fuel and advanced technology vehicles.

Choose vehicles to compare.
Select from the vehicle makes and models below. [Find alternative fuel and hybrid options.](#)

2011 Ford Taurus Gas Add >>

	Vehicle	MSRP	Fuel Economy (City/Hwy)	Fuel Type
<input checked="" type="checkbox"/>	 2011 Ford Fusion 4dr Sdn Hybrid FWD 2.5L Gas/Electric I4	\$ 28,340 Tax credit?	41/36 mpg	Hybrid
<input checked="" type="checkbox"/>	 2011 Ford Taurus 4dr Sdn SE FWD 3.5L Gas V6	\$ 25,355	18/28 mpg	Gas

Step 6: Get Help!

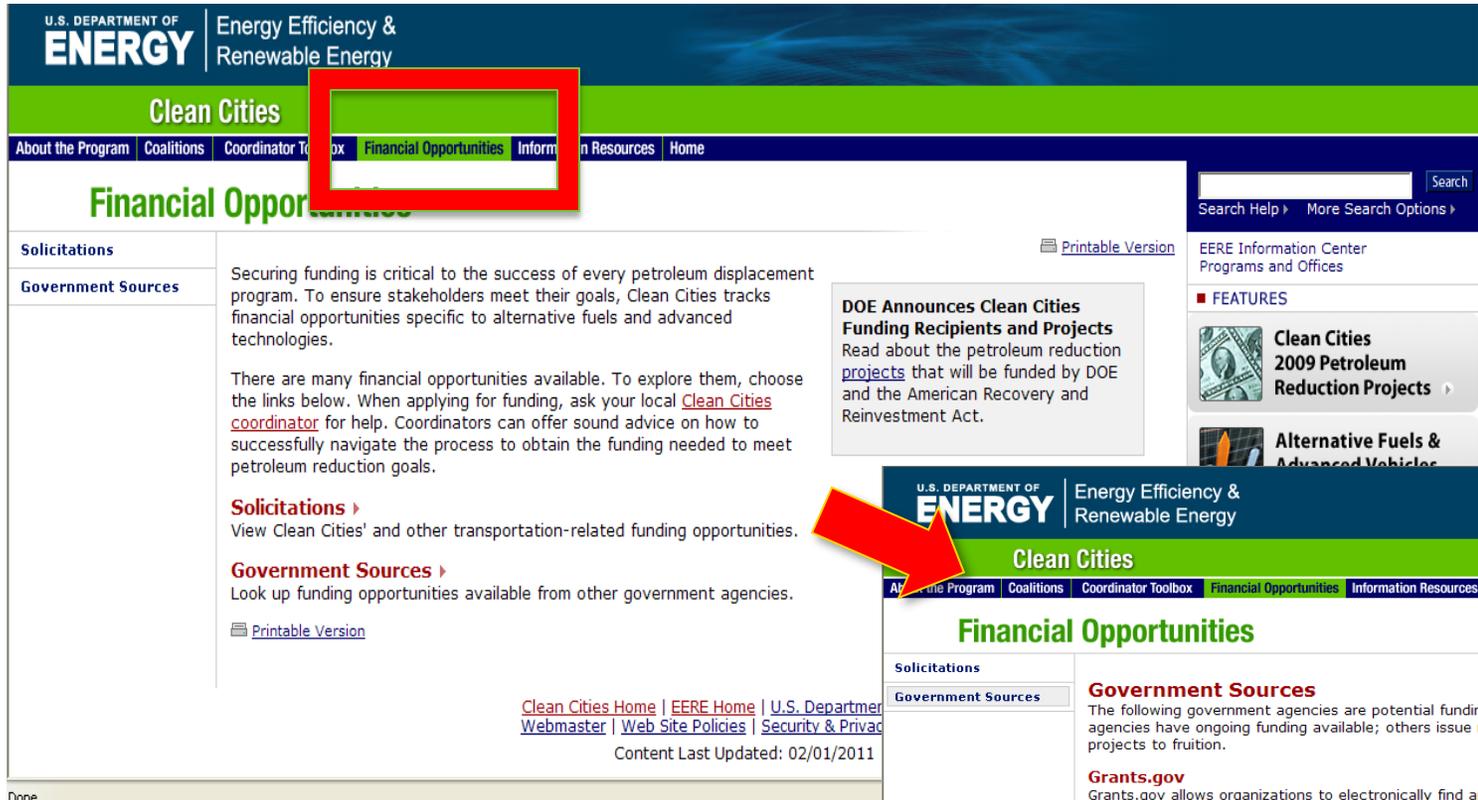


Clean Cities Web Site

- Financial opportunities
- Information resources
 - ✓ Newsletters
 - ✓ Technology bulletins
 - ✓ Technical assistance
- Local experts and resources

A screenshot of the Clean Cities website. The header includes the U.S. Department of Energy logo and the text "Energy Efficiency & Renewable Energy". Below this is the "Clean Cities" title and a navigation menu with links for "About the Program", "Coalitions", "Coordinator Toolbox", "Financial Opportunities", and "Information Resources". The main content area features a large image of a city skyline at night with a white truck on a road. Below the image is a paragraph describing the program's mission to advance economic, environmental, and energy security. To the right of this text are three featured sections: "Petroleum Reduction Tools & Information" with a fuel gauge icon, "Clean Cities Now" with a bus icon, and "Coordinator Toolbox" with a person icon. At the bottom left, there is a "Select Coalition-Related Information" section with links for "Starting Coalitions", "Coalition Locations", "Program Contacts", and "Coordinator Contacts". Below that is a "What is Clean Cities? Fact Sheet (PDF 2 MB)" link with a "Download Adobe Reader" button. On the right side of the page, there is a search bar and a sidebar with sections for "NEWS" (including a "Fuel Cell Technologies Program Postdoctoral Fellowship" announcement), "EVENTS" (including a "NAFA Fleet Management Institute and Expo" announcement), and "FEATURES" (including "National Parks Initiative", "Clean Cities MotorWeek Videos", and "Clean Cities 2009 Petroleum Reduction Projects").

<http://www1.eere.energy.gov/cleancities/>



U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

Clean Cities

About the Program | Coalitions | Coordinator Toolbox | **Financial Opportunities** | Information Resources | Home

Financial Opportunities

Solicitations

Securing funding is critical to the success of every petroleum displacement program. To ensure stakeholders meet their goals, Clean Cities tracks financial opportunities specific to alternative fuels and advanced technologies.

There are many financial opportunities available. To explore them, choose the links below. When applying for funding, ask your local [Clean Cities coordinator](#) for help. Coordinators can offer sound advice on how to successfully navigate the process to obtain the funding needed to meet petroleum reduction goals.

Solicitations ▶
View Clean Cities' and other transportation-related funding opportunities.

Government Sources ▶
Look up funding opportunities available from other government agencies.

[Printable Version](#)

[Clean Cities Home](#) | [EERE Home](#) | [U.S. Department Webmaster](#) | [Web Site Policies](#) | [Security & Privacy](#)

Content Last Updated: 02/01/2011

DOE Announces Clean Cities Funding Recipients and Projects
Read about the petroleum reduction [projects](#) that will be funded by DOE and the American Recovery and Reinvestment Act.

FEATURES

- Clean Cities 2009 Petroleum Reduction Projects**
- Alternative Fuels & Advanced Vehicles**



U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

Clean Cities

About the Program | Coalitions | Coordinator Toolbox | **Financial Opportunities** | Information Resources | Home

Financial Opportunities

Government Sources

The following government agencies are potential funding sources for your transportation-related project. Some agencies have ongoing funding available; others issue notices or assistance in forming partnerships that can bring projects to fruition.

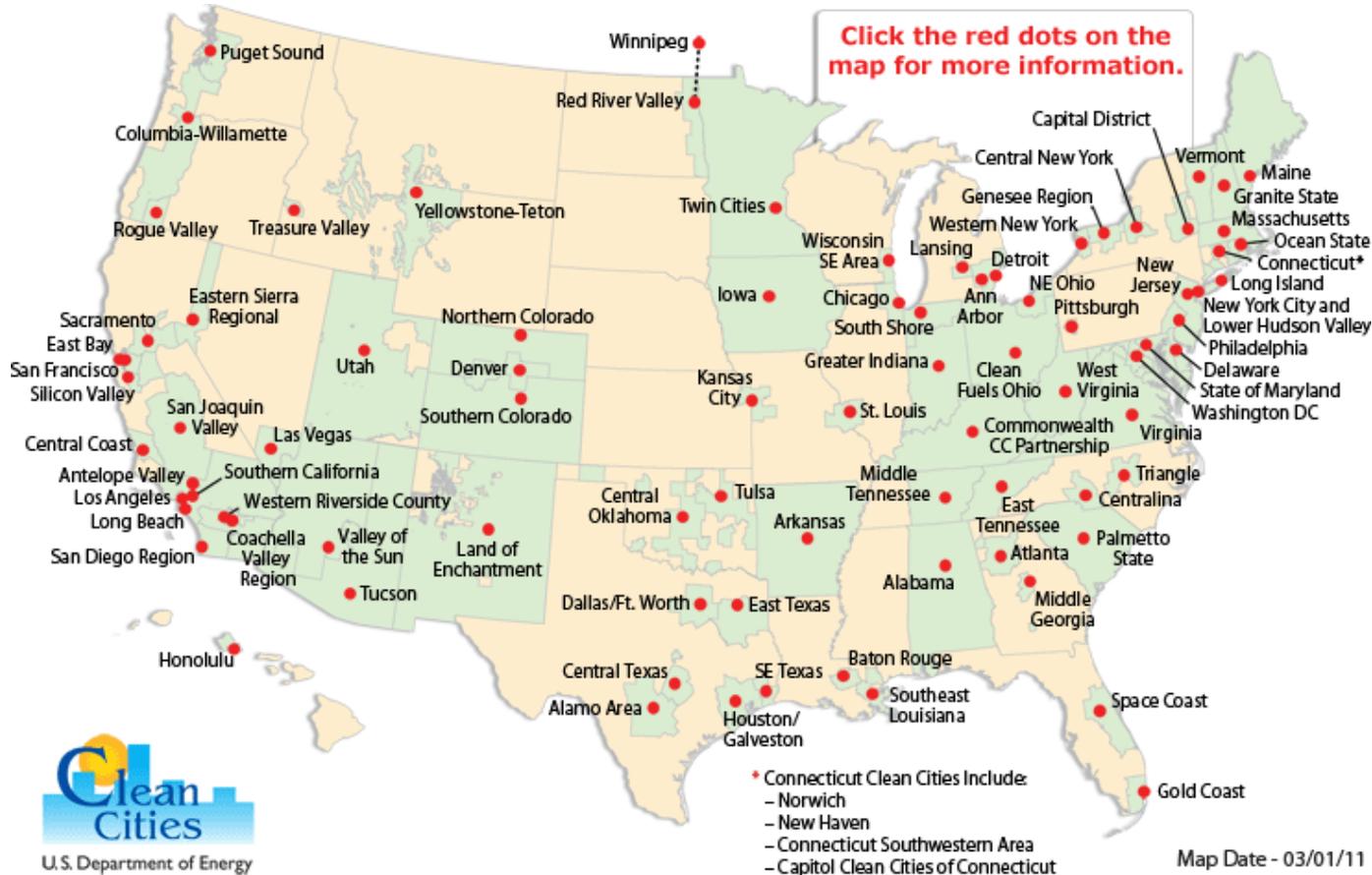
Grants.gov
Grants.gov allows organizations to electronically find and apply for competitive grant opportunities from Federal agencies. This site is the only access point for more than 900 grant programs offered by the 26 Federal grant-making agencies. To search for funding, use the [Find Grant Opportunities](#) feature on the Grants.gov Web site.

Metropolitan Planning Organizations
The Metropolitan Planning Organization (MPO) is a transportation-planning cooperative effort between local government and transportation authorities. MPOs are responsible for planning, programming, and coordinating federal highway and transit investments. Visit the [MPO](#) Web site for information on funding opportunities and potential project partners.

Congestion Mitigation and Air Quality
Congestion Mitigation and Air Quality (CMAQ) funds are distributed locally through MPOs. The funds are administered by the Federal Highway Administration and the Federal Transit Administration. CMAQ funds projects and programs that reduce transportation-related emissions in nonattainment and maintenance areas. For more information, check their [CMAQ](#) Web site.

Environmental Protection Agency
The Environmental Protection Agency (EPA) offers financial opportunities in several of its departments. For transportation-related funding, visit the following links on the EPA Web site:

Start working with the Clean Cities coalition in your area.



http://www.afdc.energy.gov/cleancities/progs/coalition_locations.php



ENERGYBLOG

Major Corporate Fleets Align to Reduce Oil Consumption

Submitted by [Dennis A. Smith](#) on April 1, 2011 - 1:07pm



Surrounded by cutting-edge vehicles, from all-electric trucks to hydraulic hybrids, President Obama today announced the [National Clean Fleets Partnership](#), an initiative of the Department's Clean Cities program, at a UPS fleet facility in Landover, Maryland. This public-private partnership will draw on the expertise of the Department of Energy to help large companies

Browse by category

Select a category...

Browse by state

Select a state...

DOE News

[Secretary Chu Announces Progress on International Initiatives to Promote Clean Energy](#)

[DOE Announces Nearly \\$170 Million in Available Funding to Advance Solar Energy Technologies](#)

[Department of Energy Implementation Activities in the Case of a Lapse of Appropriations](#)

[U.S. Department of Energy and Qatar Sign Agreement to Strengthen Cooperation on Clean Energy](#)

[Secretary Chu Announces Over \\$110 Million in SunShot Projects to Advance Solar Photovoltaic Manufacturing in the U.S.](#)

Charter Members:

- AT&T
- FedEx
- PepsiCo
- UPS
- Verizon

Clean Cities Web site

www.cleancities.energy.gov

Alternative Fuels & Advanced Vehicles Data Center Web site

www.afdc.energy.gov

FuelEconomy.gov

www.fueleconomy.gov

Clean Cities Coordinator Contact Information and Coalition Web sites

http://www.afdc.energy.gov/cleancities/progs/coalition_locations.php

DOE EERE Information Center and Technical Response Service

Web Site: <http://www.eere.energy.gov/afdc/informationcenter.html>

Phone: 1-800-EERE-INF (1-877-337-3463)

E-mail: technicalresponse@icfi.com

Hours: 9:00 a.m. – 6:00 p.m. EST

Clean Cities Information Resources

http://www1.eere.energy.gov/cleancities/info_resources.html

Data, Analysis & Trends

<http://www.afdc.energy.gov/afdc/data/index.html>

Clean Cities Financial Opportunities

http://www1.eere.energy.gov/cleancities/financial_opps.html

AFDC PREP tool

<https://www.afdc.energy.gov/afdc/prep/index.php>

Fleets

<http://www.afdc.energy.gov/afdc/fleets/index.html>

Vehicle Search

http://www.afdc.energy.gov/afdc/progs/vehicles_search.php

Publications Database

<http://www.afdc.energy.gov/afdc/publications.html>

Alternative Fuel Station Locator

<http://www.afdc.energy.gov/afdc/locator/stations/>

State and Federal Incentives & Laws

http://www.afdc.energy.gov/afdc/incentives_laws.html

TransAtlas

<http://www.afdc.energy.gov/afdc/data/geographic.html>

Truck Stop Electrification Locator

http://www.afdc.energy.gov/afdc/vehicles/idle_reduction_stations.html

Conversions

<http://www.afdc.energy.gov/afdc/vehicles/conversions.html>

Energy Information Administration (EIA)

<http://www.eia.doe.gov>

U.S. Environmental Protection Agency (EPA)

<http://www.epa.gov>

Internal Revenue Service (IRS)

<http://www.irs.gov>