



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



U.S. Department of Energy: Vehicle Technology and Infrastructure Deployment

Margo Melendez
National Renewable Energy Laboratory

August 2008



Clean Cities

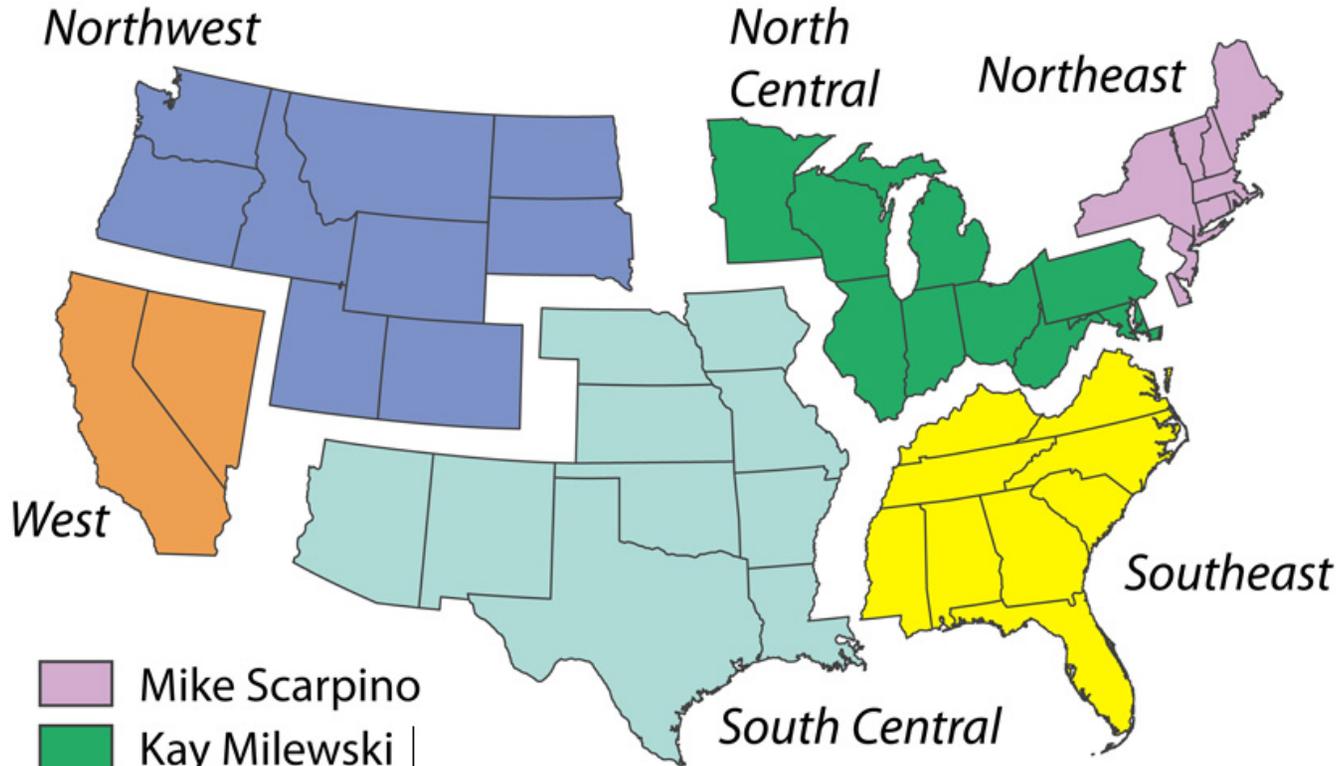
A voluntary, locally-based government/industry partnership

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.

- Established in 1993 in response to the Energy Policy Act (EPAct) of 1992
- Companion program to the EPACT/EISA/Executive Order mandates requiring certain fleets to acquire AFVs & use alternative fuels (Federal, State, and Fuel provider fleets)



Clean Cities Regions



-  Mike Scarpino
-  Kay Milewski |
-  Steve Richardson
-  Neil Kirschner
-  Mike Bednarz
-  Ernie Oakes

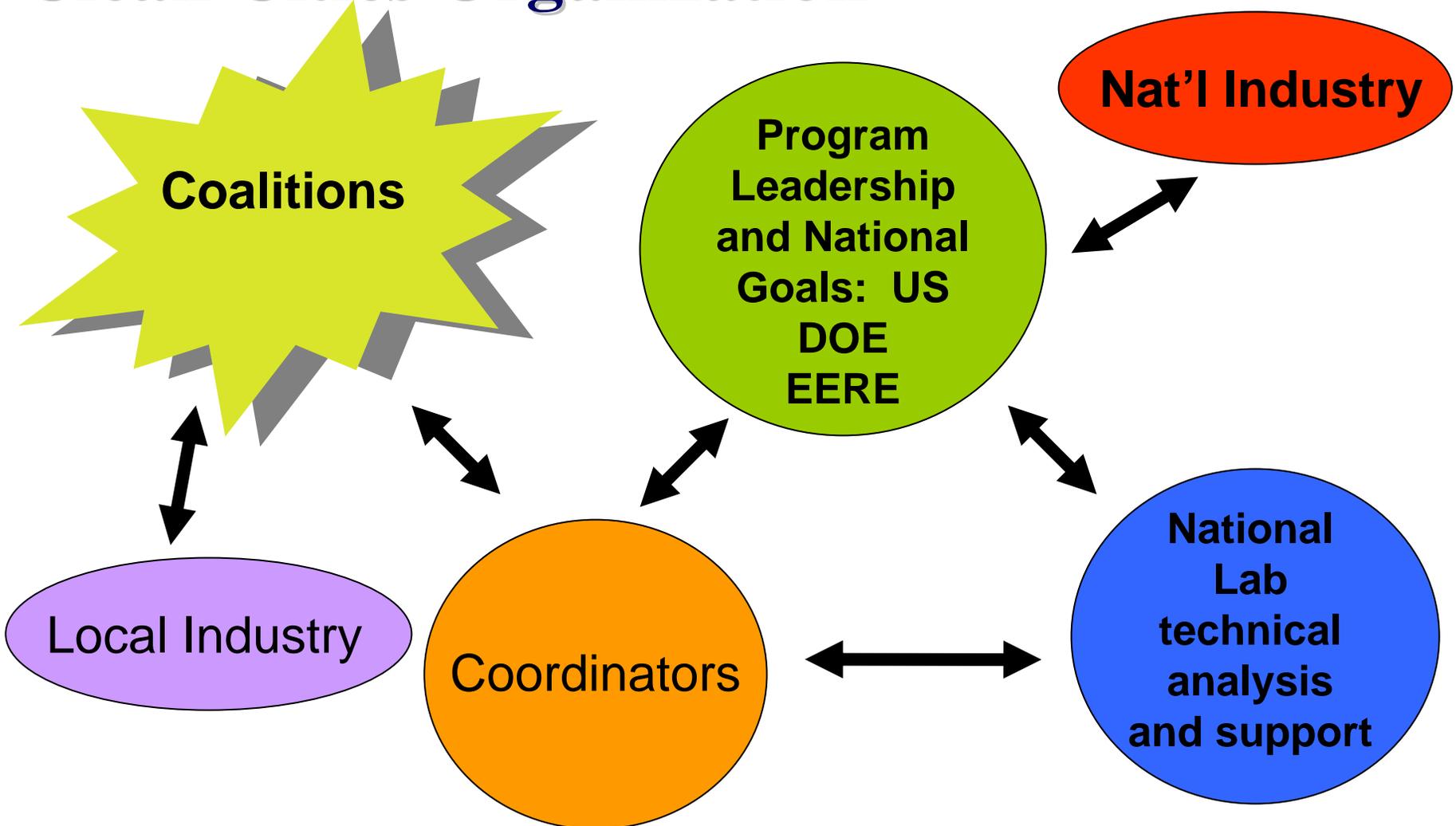
Northeast -
Puerto Rico
Virgin Is.

Northwest -
Alaska

West -
Hawaiian Is.
Guam
American Samoa
Northern Mariana Is.



Clean Cities Organization





Clean Cities Unique Assets

- **Coordinators**
 - Local champion and point of contact
 - Strong local relationships and understanding of player and issues.
- **Coalitions**
 - Members are committed to the mission
 - Build bridges in the local community to mutually address barriers
- **Technical Information and Resources**
 - AFDC recognized nationally and abroad as reliable sources of unbiased information
 - 4.8 million page hits (FY2005)
 - Over 76,000 documents being downloaded
- **Local Strategy to Advance a National Goal**
 - Local involvement works effectively in communities
 - National leadership adds legitimacy to local activities and assists with information transfer among coalitions.



Clean Cities Deployment Efforts (3 focus areas)

Vehicle and Infrastructure Hardware

Alternative Fuel Infrastructure Development
Vehicle Technology Demonstrations

Technology Implementation

Consumer Information, Outreach & Education
CC Coalition Support to Deploy Technologies Locally

Technical Troubleshooting

Address Specific Technical Barriers
Provide Technical Assistance for Early Adopters



Clean Cities Technology Portfolio

Alternative Fuels

- Electricity
- Ethanol
- Propane
- Natural Gas
- Hydrogen
- Biodiesel (B100)

Idle Reduction

- Heavy-duty trucks
- Transit/School Buses

Blended Fuels

- Low levels of alternative fuels with conventional fuels (B2, B5 and B20)

Hybrids

- Light- and heavy-duty hybrids

Fuel Economy

- Fuel-efficient vehicles
- Light weight materials
- Behavioral changes
- Vehicle maintenance initiatives



2006 Petroleum Reduction Breakdown

Technology	GGEs	Percentage of Total
AFVs	253	70%
HEVs	9	2%
Blends	10	3%
Fuel Economy	80	22%
Truck Electrification	8	2%
Total	360	100%

- **Alternative fuels account for lion's share of the displacement**
- **Fuel Economy is next, with significant potential for growth**



Hardware Development and Deployment

\$8.6 million (2006-2008) in cooperative agreements with Clean Cities Partners:

- Ethanol, biodiesel, natural gas and propane infrastructure and vehicle acquisition.
- Cost share >\$16 million for a total of more than \$25 million





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Energy Efficiency
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Clean
Cities

FE Guide

www.fueleconomy.gov

[Links](#) | [FAQ](#) | [Site Map](#) | [Search](#) | [Contacts](#)



United States Department of Energy
Energy Efficiency and Renewable Energy

United States
Environmental Protection Agency

FIND AND COMPARE CARS...



... mileage (MPG), greenhouse
... emissions, air pollution ratings,
... and safety information for new and
... ed cars and trucks

Compare Side-by-Side
Search by Class

YOUR MPG ...



... h 'Your MPG' you can:
... Calculate and Share 'Your MPG'

- View MPG Estimates from
... Drivers Only!



Videos

- Extreme MPG
- Motorweek Videos



Gasoline Prices

- Find the Lowest Prices
- Frequently Asked Questions



Gas Mileage Tips

- Driving More Efficiently
- Maintaining Your Car



Hybrid Vehicles

- How Hybrids Work
- Tax Incentives



Alternative Fuel Vehicles

- Flex-Fuel Vehicles
- How Fuel Cells Work



New Fuel Economy Ratings

- How Vehicles are Tested
- Your MPG Will Vary



Find Your Car's Energy Impact Score



Energy Efficiency

- Diesel Vehicles and Fuels
- Energy Efficient Technologies



Why is fuel economy important?

- Fuel Cost Calculator
- Strengthen National Security

[fueleconomy.gov/m](http://www.fueleconomy.gov/m)
Find and Compare Cars on
Your Mobile Device

In the News...

Americans fear \$4 gas - CNN
[Disclaimer](#) [More News](#)

NEW MPG RATINGS FOR 2008

MPG Rating	Self Serve	Cash or Credit
18	329 ¢	339 ¢
25	349 ¢	

We have revised the 1985-2007 MPG estimates to make them comparable to EPA's new 2008 MPG ratings.

- New 1985-2008 MPG estimates
- Print the Fuel Economy Guide

Gasoline - Ethanol Vehicles

Find a Flex-Fuel Vehicle
Where can I buy E85?

www.fueleconomy.gov

model year **2008**

Fuel Economy Guide

EPA Fuel Economy Estimates

City	Highway	Combined
18	25	21

Self Serve 329 ¢
Cash or Credit 339 ¢
349 ¢

EPA
U.S. Department of Energy
Office of Energy Efficiency and Renewable Energy
U.S. Environmental Protection Agency

www.fueleconomy.gov



Alt Fuels & Advanced Vehicles Data Center

Address <http://www.eere.energy.gov/afdc/> Go Links >>

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Alternative Fuels & Advanced Vehicles Data Center

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NEWS

Three Small-Scale Biorefinery Projects Selected by DOE >
May 05, 2008

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EVENTS

Blue Sky Award Ceremony & Luncheon >
06/10/2008 - 06/10/2008

More Events >

FEATURES

Handbook for Handling, Storing, and Dispensing E85 > (PDF 5.4 MB)
Download Adobe Reader

Clean Cities >

Internet

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.

Alternative Fuel Portals

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

[More Fuels Information >](#)

Select Vehicle Information

- [Conversions](#)
- [Emissions](#)
- [Fuel Economy](#)
- [HEVs](#)
- [Plug-in Hybrids](#)
- [Idle Reduction](#)

[More Vehicle Information >](#)

Quick Links to AFDC Tools

- [Vehicle Make & Model Search](#)
- [Alternative Fueling Station Locator](#)
- [Incentives & Laws](#)
- [Publications Search](#)

[Printable Version](#)

www.eere.energy.gov/afdc



Basic Fuels/Vehicle Content

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

Alternative Fuels & Advanced Vehicles Data Center

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

Alternative & Advanced Vehicles

Vehicle Make & Model Search

Flexible Fuel Vehicles

Natural Gas Vehicles

Propane Vehicles

Hybrid Electric Vehicles

Plug-in Hybrid Vehicles

Electric Vehicles

Fuel Cell Vehicles

Diesel Vehicles

- Vehicle Classes
- Light-Duty Availability
- Emissions
- Selective Catalytic Reduction
- Diesel Exhaust Fluid Locator
- NO_x Adsorbers

Conversions

Resale

Technician Training

Idle Reduction

Fuel Economy

Diesel Vehicles

Because of new laws implemented by the U.S. Agency, today's diesel vehicles running on ultra-low sulfur diesel are considered advanced fuel-efficient vehicles. For information on [biodiesel](#) blends without engine modification, see the [Biodiesel](#) page.

This page serves as a table of contents for the Diesel Vehicles section. To learn more, choose from the links below.

Diesel Vehicle Classes >

Learn about light-, medium-, and heavy-duty use.

Light-Duty Diesel Vehicle Availability >

Find out which light-duty diesel vehicles are available in your area.

Diesel Emissions >

Learn about current and upcoming emissions regulations and the technologies being used to achieve them.

Selective Catalytic Reduction >

Learn how diesel vehicles are becoming cleaner using selective catalytic reduction (SCR) and how Diesel Exhaust Fluid is used in SCR systems.

Diesel Exhaust Fluid Locator >

Search for locations that sell Diesel Exhaust Fluid.

NO_x Adsorbers >

Address: <http://www.eere.energy.gov/afdc/ethanol/index.html>

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Ethanol

[Printable Version](#)

Basics

E85

Blends

Feedstocks

Production

Distribution

Stations

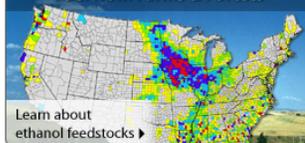
Incentives & Laws

Publications

Related Links

This Ethanol subsite represents a joint effort of the U.S. Department of Energy's [Biomass](#) and [Vehicle Technologies](#) Programs and covers the entire production cycle of ethanol, from the field to the fuel tank. For information on other biofuels, go to the [Fuels](#) section.

Fuel from Farms & Forests



Learn about ethanol feedstocks >

Vehicles >

Learn about available flexible fuel vehicles designed to use E85, costs, conversions, and more.

Prices >

Just like gasoline prices, the cost of ethanol fluctuates. For the latest E85 price analysis, see the [Alternative Fuel Price Report](#).

Basics >

Incentives and Laws >

Ethanol Fuels

- [E85](#)
- [E10](#)
- [E15-E20](#)

Production and Distribution

- [Feedstocks](#)
- [Production](#)
- [Distribution](#)

Stations >

- [Locations](#)
- [Infrastructure Development](#)
- [E85 Fuel Retailers Business Case](#)

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- FEATURES

[E85 Fleet Toolkit](#)

[UL E85 Fuel Dispenser Listing](#)

[Clean Cities](#)

[Biomass Program](#)

[FFV Cost Calculator](#)

<http://www.eere.energy.gov/afdc/ethanol/blends.html>

Internet



Technology Bulletins

Technological breakthroughs, issues, and news

Alternative Fuels & Advanced Vehicles Data Center

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- Publications**
- [Technology Bulletins](#)
- [Newsletters](#)
- Glossary**
- Related Links**

Underwriters Laboratories E85 Fuel Dispenser Listing

Triggered by the need to establish comprehensive safety requirements for an entire E85 dispenser system, Underwriters Laboratory (UL) in October 2006 suspended their official listings (certification) for individual parts that compose an E85 fuel dispenser. In October 2007, UL published listing procedures for evaluating and certifying E85 equipment. This technology bulletin offers an overview, including background, timeline, and contact information.



- [Background](#)
- [Current Underwriter Laboratories Actions and Timeline](#)
- [Fire Codes for Fuel Dispensers](#)
- [Interim Steps to Continue Deployment and Use of E85 Fuel Dispensers](#)
- [Examples of State Letters Granting Variances/Waivers](#)
- [Contact Information and Related Links](#)
- [Frequently Asked Questions](#)

Recent Updates

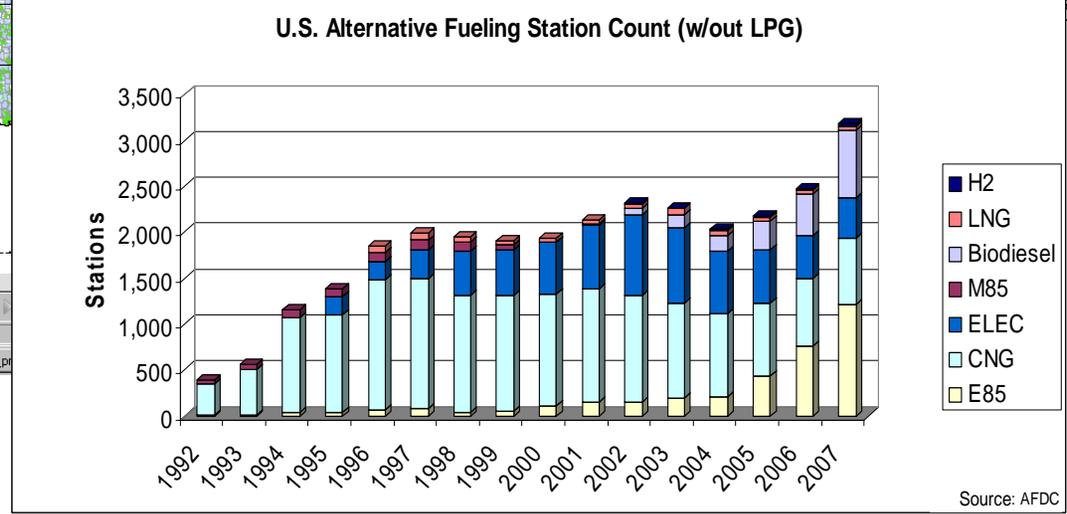
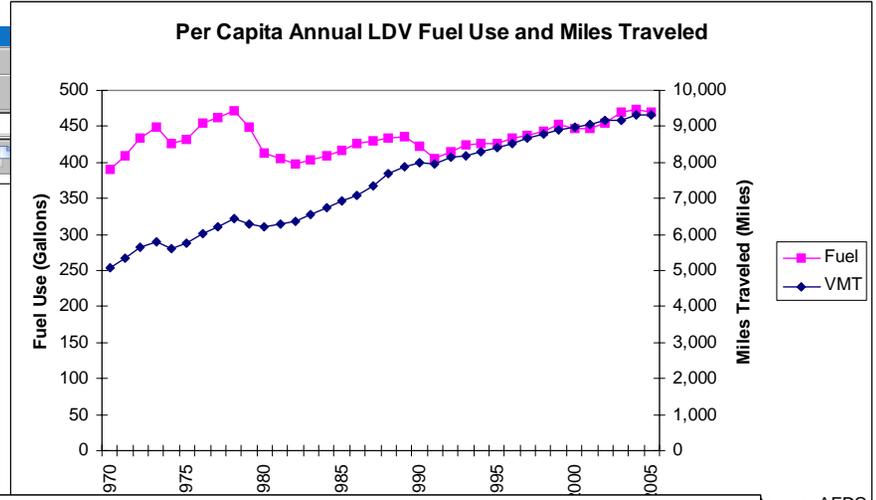
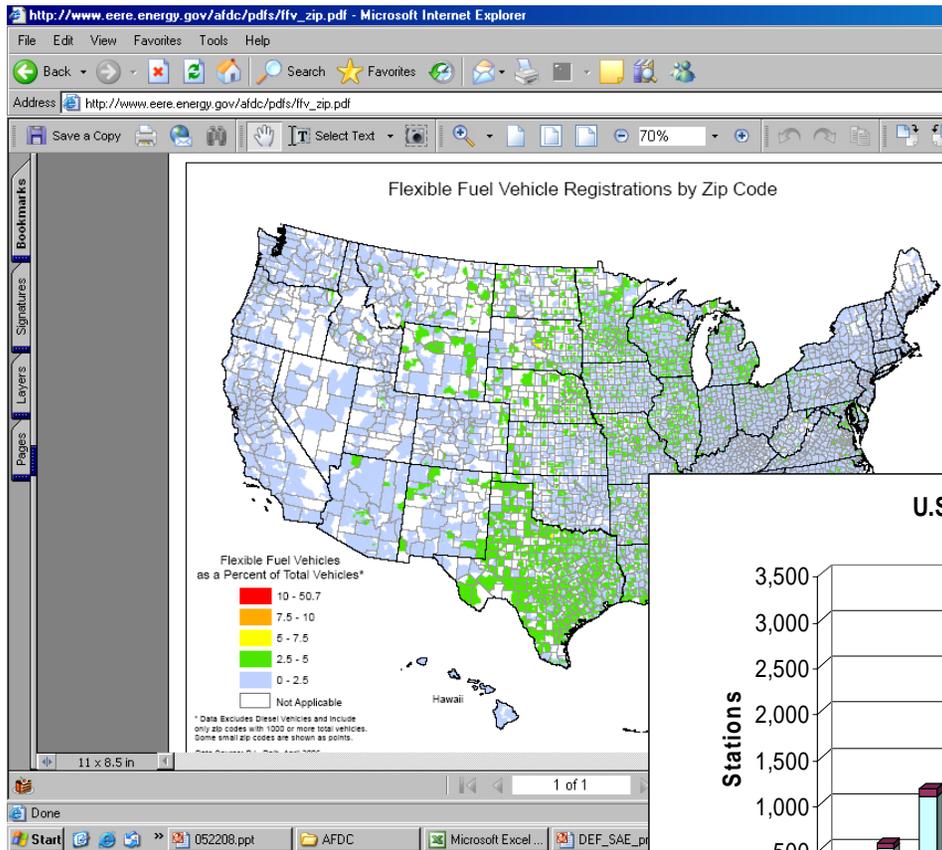
- ▶ [October 2007 - UL Press Release regarding certification requests](#)
- ▶ [August 2007 - UL Press Release regarding E85 gaskets and seals](#)

Some of the documents on this page are in PDF format and may be viewed using the Adobe Reader. [Download Adobe Reader.](#)

Background



Data Analysis and Trends





Incentives and Laws

Alternative Fuels and Advanced Vehicles Data Center: State and Federal Incentives and Laws - Microsoft Internet Explorer

File Edit View Favorites Tools Help

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

State & Federal Incentives & Laws

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Custom Query
Create a search query to compare state laws, combine federal and state incentives, and more.

Summary Tables

- Incentive Type
- Regulation Type
- Technology/Fuel Type
- User Type

Our database captures state and federal laws and incentives related to alternative fuels and vehicles, air quality, fuel efficiency, and other transportation-related topics. State-level information is updated annually after each state's legislative session ends. To access state information, select a state from the map below. Federal information is updated after enacted legislation is signed into law. Select the Federal Incentives and Laws link below for the latest federal-level information.

The [Energy Independence and Security Act of 2007](#) (P.L. 110-140, H.R. 6) was signed into law on December 19, 2007. This broad-reaching policy contains many provisions to increase energy efficiency and the availability of renewable energy. For the complete text, download The Energy Independence and Security Act of 2007 ([PDF 895 KB](#)). [Download Adobe Reader](#)

Selected summaries from The Energy Policy Act (EPAct) of 2005 are also available, view [EPAct 2005 summaries](#).

-  [Federal Incentives and Laws](#)
- [Recent Federal Actions](#)



Done Internet

Custom Query

Create a search query to compare state laws, combine federal and state incentives, and more.

Summary Tables

Incentive Type

Regulation Type

Technology/Fuel Type

User Type

Search by state,
type, or custom



Vehicle Search

AFDC: Vehicle Make/Model Search - Microsoft Internet Explorer

Address: http://eeredev.nrel.gov/afdc/vehicles/heavy/

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Alternative & Advanced Vehicles

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Vehicle Make & Model Search

Flexible Fuel Vehicles
Natural Gas Vehicles
Propane Vehicles
Hybrid Electric Vehicles
Plug-in Hybrid Vehicles
Electric Vehicles
Fuel Cell Vehicles
Diesel Vehicles
Conversions
Resale
Technician Training
Idle Reduction
Fuel Economy
Emissions

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: All | Fuel Type: CNG | Application: All

Compare

- [Arrow Engine Company - VRG 220](#)
- [Arrow Engine Company - VRG 330](#)
- [Arrow Engine Company - VRG 330ta](#)
- [Baytech Corp. - 4.3 ILEV](#)
- [Baytech Corp. - 5.7 ILEV](#)
- [Baytech Corp. - 5.7 ULEV Dual-Fuel](#)
- [Baytech Corp. - 6.0 Medium-Duty](#)
- [Baytech Corp. - 6.0 ULEV](#)
- [Baytech Corp. - 6.0 ULEV Dual-Fuel](#)

Trusted sites



Refueling Station Locator

[Fleets](#) | [Incentives & Laws](#) | [Data, Analysis & Trends](#) | [Information Resources](#) | [Home](#)

[Basic Station Search](#) | [Map a Route](#) | [Advanced Options](#)

Alternative Fuels and Advanced Vehicles Data Center: Alternative Fueling Station Locator - Microsoft Internet Explorer

Address: http://eeredev.nrel.gov/afdc/stations/find_station.php

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Alternative Fuels & Advanced Vehicles Data Center

About the AFDC | [Fuels](#) | [Vehicles](#) | [Fleets](#) | [Incentives & Laws](#) | [Data, Analysis & Trends](#) | [Information Resources](#) | [Home](#)

Alternative Fueling Station Locator

Printable Version | Help

[Basic Station Search](#) | [Map a Route](#) | [Advanced Options](#)

First: Select one or more fuels.

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

Second: Enter an Address, City, State

Washington, DC

Show stations within mile radius

Get Results

Second: Select a location, a state, or enter a route.

Address State Enter a Route

Third: Enter advanced search criteria.

Station Status Refined Search:
 All Stations Public Private Planned

Private Station Refined Search:

Payment Method Refined Search:

 Mastercard
 American Express
 VISA

Search

Results 1 - 10 of 28 near Washington, DC

A Marine Barracks 8th and I Washington, DC 20390 Phone: Fuel: Ethanol (E85) Distance: 1 miles

B DC Fleet Management Administration Fueling Location 1835 West Virginia Avenue NE Washington, DC



E85 Infrastructure Information (Toolkit)

E85 Fleet Toolkit: Partnering for Success - Microsoft Internet Explorer

Address: <http://www.eere.energy.gov/afdc/e85toolkit/partnering.html>

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E85 Fleet Toolkit

← E85 Fleet Toolkit Home

Getting Started
Benefits of E85
Partnering for Success
Funding Opportunities

E85 Fuel

E85 Fueling Options

Equipment & Processes

E85 Vehicles

Risk Management

Ensuring Success

Contacts

Publications

Related Links

Partnering for Success
Working with others can make your project more successful and help conserve resources. Here are some tips for making your E85 infrastructure project a success.

[Printable Version](#)

Search Help | More Search Options | Site Map | EERE Information Center

- Always talk to several people that have had experience with E85. We encourage you to read the [fleet case studies](#) contained in this toolkit as you may find an operation similar to your own. Contact information is also provided in those case studies, so please use this information to your advantage.
- It is critical to any fueling station's success to have a dependable fuel supplier and a certified contractor that is familiar with E85. Although ethanol fuels are in wide use today, many old misconceptions remain. Shopping around for the right contractor is time well spent and will likely save you money and problems in the long-term.
- Contact your closest [Clean Cities coalition](#), the [National Ethanol Vehicle Coalition](#), and/or your [state energy office](#). Each of these may be able to assist with industry contacts familiar with E85, E85 suppliers in your area, possible project funding, partnership opportunities, driver education

Internet



Fleet Experiences

Alternative Fuels and Advanced Vehicles Data Center: Fleet Experiences - Microsoft Internet Explorer

Address: http://www.eere.energy.gov/afdc/fleets/fleet_experiences.html

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Fleets

[Printable Version](#)

Fleet Applications

Fleet Experiences

Technical Assistance

Fleet Experiences

Learning from other fleet experiences (formerly Success Stories on the Clean Cities Web site) can be helpful when implementing alternative fuel and advanced technology vehicles in your fleet. This compilation of fleet experiences can be a helpful resource to find out how other fleets are using alternative fuel vehicles, dealing with infrastructure issues, obtaining funding, and more.

Fleet experiences are listed by vehicle category, fuel/technology type, and fleet application. Choose a link beneath each topic to find experiences related to your area of interest.

Vehicle Category

- [Light-Duty Vehicles](#)
- [Medium/Heavy-Duty Vehicles](#)
- [Low Speed Vehicles](#)
- [Off-Road Vehicles](#)

Fuel/Technology Type

- [Biodiesel](#)
- [Electric](#)
- [Ethanol](#)
- [Hybrid Electric](#)
- [Hydrogen](#)

Search

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Coming Soon....

Petroleum Reduction Planning Tool (PREP)

Alternative Fuels and Advanced Vehicles Data Center: Fleets - Microsoft Internet Explorer

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Alternative Fuels & Advanced Vehicles Data Center

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Fleets

Fleet Applications | Fleet Experiences

Search Help | More Search Options

Quick Links:

- Vehicle Make and Model Search
- Alternative Fuels Station Locator and Route Mapper
- E85 Fleet Toolkit

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EERE Information Center

FEATURES

- E85 Fleet Toolkit
- UL E85 Fuel Dispenser Listing
- Alternative Fuel Station Locator

This fleet portal, which replaces the "Clean Fleet Guide," is a one-stop shop for fleets interested in green vehicle and fuel options. The information in this site is arranged by fleet type and includes clean fleet options that can be implemented to reduce petroleum consumption.

Applications

the issues surrounding specific fleet types and gain insight on which vehicles work well in the following fleet applications:

- Airports
- Delivery Services
- Long-Haul Trucks
- Marinas
- Police/Traffic Enforcement
- Refuse Haulers
- School Buses
- Shuttle Buses
- Taxis

Results

EPAct Fleet ID: 1255

Annual Petroleum Reduction Requirement: **85,800 GGE**

Required = 85,800 GGE

Category	Value
Required	85,800 GGE
Category 1	54,824
Category 2	35,355
Category 3	29,540
Category 4	22,340
Category 5	17,585
Category 6	11,156

Alternative Compliance Planning Tool
Step 2: Create Your Petroleum Reduction Plan

To calculate the petroleum reduction potential of **Alternative Fuels**, fill in the boxes below using your **actual historical fleet data**. Default values based on nationwide statistics are provided; however, since your own fleet operations can vary considerably from these averages, we strongly recommend you use fleet-specific data.

When developing a plan, remember it is just that, a plan. Actual fleet experience may differ. Therefore, to ensure your fleet meets its requirement, make conservative projections. There are two ways to do this: Estimate lower and plan higher. For example, if you think your fleet will use E85 75% of the time, lower your estimate to 70%. If your petroleum requirement is 10,000 GGE, plan for 11,000 GGE. That way, you'll be covered if you run into a problem.

Alternative Fuels	HEVs	Biodiesel Blends	Fuel Economy	VMT Reduction	Truck Stop Electrification	Idling Time Reduction	Onboard IR
Alternative Fuels							
AFV Type*	AFV Fuel*	Number of AFVs*	Average VMT	Fuel Economy (mpg)	Fraction of Fuel Use*		
Pick from list	Pick from list						
Save Inputs							
AFV Type*	AFV Fuel*	Number of AFVs*	Average VMT	Fuel Economy (mpg)	Fraction of Fuel Use*		
Large Car	E85	10	10000	20.3	.7		

Updated fleet portals



Key Publications



Handbook for Handling, Storing, and Dispensing E85 ▶ (PDF 5.4 MB)

Download Adobe Reader

NREL National Renewable Energy Laboratory
Innovation for Our Energy Future

E85 Retail Business Case: When and Why to Sell E85

C. Johnson and M. Melendez

Technical Report
NREL/TP-540-41590
December 2007



Fact Sheet

April 2008

What Is Clean Cities?

Clean Cities is a government-industry partnership designed to reduce petroleum consumption in the transportation sector by advancing the use of alternative fuels and vehicles, idle reduction technologies, hybrid electric vehicles, fuel blends, and fuel economy measures.

Sponsored by the U.S. Department of Energy's (DOE) Vehicle Technologies (VT) Program, Clean Cities contributes to the energy, environmental, and economic security of the United States by reducing its dependence on imported petroleum. Established in 1993 in response to the Energy Policy Act (EPAct) of 1992, the partnership provides tools and resources for voluntary, community-based programs to reduce consumption of petroleum-based fuels.

In addition to coalitions, government agencies and private companies voluntarily come together under the umbrella of Clean Cities. The partnership helps all parties identify mutual interests and meet the objectives of reducing the use of imported oil, developing regional economic opportunities, and improving air quality.

Which technologies are included?
The portfolio provides a range of options and flexibility to meet the petroleum displacement goals.

Clean Cities deploys technologies and practices developed by VT. These include truck stop electrification and onboard auxiliary power to reduce fuel used in idling trucks, hybrid electric vehicles, the blending of non-petroleum based fuels (such as ethanol or biodiesel) with conventional fuels, higher efficiency vehicles and driving practices, and the conversion of the portfolio, alternative fuels. The alternative fuels, which are defined by EPAct and supported by Clean Cities, include ethanol, biodiesel, hydrogen, electricity, liquefied petroleum gas (LPG), and natural gas.

How does Clean Cities work?
The partnership mobilizes local stakeholders in government and industry.

Clean Cities draws stakeholders from local, state, and federal agencies, public health and transportation departments, commercial fleets, transit agencies, and other government entities, as well as auto manufacturers, car dealers, fuel and equipment suppliers, public utilities, and nonprofit associations. More than 5,500 stakeholders

have accepted the invitation to contribute to the partnership mission.

Clean Cities is instrumental in cultivating an advanced transportation community in which people learn about a wide range of options and technologies. In addition, Clean Cities helps create markets for alternative fuel vehicles (AFVs), hybrids, fuel blends, fuel economy and idle reduction. A Clean Cities coalition can provide a forum for members to leverage their resources, develop joint projects, collaborate on public policy issues, and promote petroleum displacement and clean air technologies.

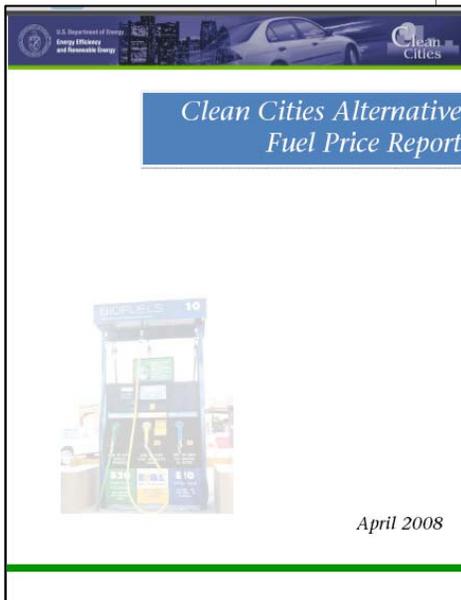
The partnership addresses the challenge of moving the United States away from the infrastructure and practices that contribute to dependence on imported petroleum and toward energy independence and security. In support of this challenge, Clean Cities assesses the market in meetings its objectives for renewable and alternative fuel use.

What kind of assistance does Clean Cities offer?
Clean Cities provides coordinated strategies and technical and funding resources.

At the national level, Clean Cities provides original equipment manufacturers, trade associations, and other federal agencies with coordinated strategies and resources they can leverage to obtain maximum petroleum displacement. Clean Cities also provides coalitions with access to information and incentives from DOE and other federal agencies and industry partners that can help fund significant, high-impact projects. Additionally, Clean Cities provides a large collection of technical data and information, including current data on fuels, vehicles, loading stations and truck-stop electrification locations, infrastructure development, state and federal incentives and laws, technical and outreach publications, and industry resources—all available via the Internet. Finally, Clean Cities offers technical assistance in coordination as they work to develop infrastructure and market strategies.

Continued on next page.

U.S. Department of Energy
Energy Efficiency and Renewable Energy
http://www.eere.energy.gov/clean_cities/



Clean Cities Alternative Fuel Price Report

April 2008

Biomass BIODIESEL
Handling and Use Guidelines

DOE/GO-102006-2108
Third Edition
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U.S. Department of Energy
Energy Efficiency and Renewable Energy
Bringing you a comprehensive library when energy is down, cleaner, safer, and more abundant.



RSS Feed for AFDC

The screenshot shows a web browser window titled "Alternative Fuels and Advanced Vehicles Data Center: RSS Feed - Microsoft Internet Explorer". The address bar shows the URL http://www.eere.energy.gov/afdc/rss_feed.html. The page content includes a navigation menu with links for "About the AFDC", "Fuels", "Vehicles", "Fleets", "Incentives & Laws", "Data, Analysis & Trends", "Information Resources", and "Home". A "News" section is visible with a red car and a yellow bus. The main content area features the following text:

RSS Feed

Stay connected with the Alternative Fuels and Advanced Vehicles Data Center (AFDC) and Clean Cities Web sites through RSS (Really Simple Syndication). RSS is a convenient way to automatically track new information posted online.

How do I use RSS?

The first step in using RSS is choosing a feed reader. Also known as news aggregators, these programs are available online and are free to download. A list of free readers is available in [Google's News Reader Directory](#), plus many Web browsers have integrated feed readers.

Once you have a reader in place, subscribe to RSS feeds on your favorite Web sites. Your news reader will then automatically check your RSS feeds for new items. When found, it will list them in an easy-to-scan format. If an item is of interest to you, click on it to read it in full.

How do I subscribe to the AFDC RSS feed?

When your reader is in place, click the orange XML button below to open the AFDC RSS feed. If your news reader is configured to open feeds automatically, news should automatically pop up in the reader. However, if you see code in your browser, copy the AFDC RSS feed URL (<http://www.eere.energy.gov/afdc/rss/rss.xml>), open your reader, and paste it into the subscription field.

Subscribe to the AFDC RSS feed: [XML](#)

At the bottom of the browser window, the system tray shows the time as 9:28 AM on Thursday, 2/28/2008. A blue box at the bottom of the page highlights the URL http://www.eere.energy.gov/afdc/rss_feed.html.



Alternative Fuel Implementation and Tips

- Identify the best fuel for your fleet
 - Fuel availability and vehicle availability
 - Fuel properties and environmental impacts
 - Use and fueling patterns
- Evaluate fueling options
 - Existing public station
 - Existing private station partnership
 - New public station
 - New private station



Alternative Fuel Implementation and Tips

- Identify and Capitalize on major drivers
 - Regulations, laws and incentives
 - Fleet champions
 - Local or community champions (CC Coordinator)
- Get all major players at the table
 - Codes and standards
 - Fleet managers, drivers, etc.
 - Fuel suppliers
 - Station owners and/or equipment manufacturers



Clean Cities

Address <http://www1.eere.energy.gov/cleancities/> Go Links >>

U.S. Department of Energy
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Clean Cities EERE Home

[About the Program](#) [Coalitions](#) [Coordinator Toolbox](#) [Financial Opportunities](#) [Information Resources](#)

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 develop 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.

Petroleum Reduction Tools & Information

[Alternative Fuels and Advanced Vehicles Data Center](#): This Web site educates consumers and fleets on alternative fuels and advanced vehicles.
[Fuel Economy.gov](#): This Web site compares gas mileage, emissions, air pollution ratings, and safety data for new and used vehicles.

Clean Cities Now >
 This quarterly newsletter addresses industry news, coalition successes, and program information.

Coordinator Toolbox >

Select Coalition-Related Information

- [Starting Coalitions](#)

AFDC RSS Feed RSS

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CC Technical Response Service

- 1-877-337-3463
- Available 9:00 a.m. – 6:00 p.m.
- Technicalresponse@icfi.com

