

AFDC in Action



AFDC Webinar

October 11, 2018



Rebecca Otte

Clean Fuel Partnership Director

SOUTHEAST LOUISIANA
CLEAN FUEL PARTNERSHIP



PUTTING THE PIECES TOGETHER FOR CLEANER FUEL
A STRONGER ECONOMY - A HEALTHIER COMMUNITY

- Housed at the Regional Planning Commission for the New Orleans Metro Area
- Part of the Clean Cities Coalition Network
- Work with Municipal Fleets & Elected Officials including:
 - Jefferson Transit
 - New Orleans EMS
 - City/Parish (County) Fleet Pool Vehicles
 - Refuse Haulers with Contracts with the Municipalities

Alternative Fuels Data Center

- Unbiased Information
- Updated Regularly
- Clear and Easy to Understand
- Resources for more Technical Information



Goal:
Provide resources
to help make
your project a
success!!

Useful for:

- Planning out a Project
- Resources for getting Everyone on Board

Pages I Use on a Regular Basis

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

EERE Home | Programs & Offices | Consumer Information

Alternative Fuels Data Center

Search the AFDC


FUELS & VEHICLES **CONSERVE FUEL** **LOCATE STATIONS** **LAWS & INCENTIVES** **Maps & Data** **Case Studies** **Publications** **Tools** **About** **Home**

EERE » AFDC





Fuels & Vehicles

Biodiesel Electricity Ethanol Hydrogen Natural Gas Propane

Information by State



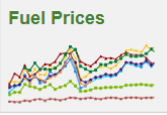
Information by Fleet Application

 Delivery Services  Refuse Collection
 Public Transit  School Transportation

Maps & Data

- U.S. Alternative Fueling Stations by Fuel Type
- U.S. Hybrid Electric Vehicle Sales by Model

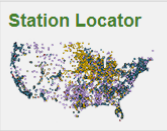
Fuel Prices




Tools

- Laws & Incentives
- Electricity Sources & Emissions
- Vehicle Cost Calculator
- **Vehicle Search**

Station Locator



 Download [iPhone app](#) or [Android app](#)

The Information Source for Alternative Fuels and Advanced Vehicles

The Alternative Fuels Data Center (AFDC) provides information, data, and tools to help fleets and other transportation decision makers find ways to reach their energy and economic goals through the use of alternative and renewable fuels, advanced vehicles, and other fuel-saving measures.

Fuels & Vehicles	Conserve Fuel	Locate Stations	Laws & Incentives	Data & Tools	About
Biodiesel	Idle Reduction	Search by Location	Search	Widgets	Project Assistance
Electricity	Parts & Equipment	Map a Route	Federal	Data Downloads	News & Features
Ethanol	Maintenance		State	APIs	Spanish Resources

- Fuels & Vehicles
- Vehicle Search
- Information by Fleet Application
- Locate Stations
- Laws & Incentives
- Case Studies
- Publications

Fuels & Vehicles

Alternative Fuels Data Center


[FUELS & VEHICLES](#)[CONSERVE FUEL](#)[LOCATE STATIONS](#)[LAWS & INCENTIVES](#)[Maps & Data](#)[Case Studies](#)[Publications](#)[Tools](#)[About](#)[Home](#)

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Alternative Fuels and Advanced Vehicles


More than a dozen [alternative fuels](#) are in production or under development for use in [alternative fuel vehicles](#) and [advanced technology vehicles](#). Government and private-sector vehicle fleets are the primary users for most of these fuels and vehicles, but individual consumers are increasingly interested in them. Using alternative fuels and advanced vehicles instead of conventional fuels and vehicles helps the United States conserve fuel and lower vehicle emissions.



Biodiesel

Biodiesel is a renewable fuel that can be manufactured from vegetable oils, animal fats, or recycled cooking grease for use in diesel vehicles.


[Diesel Vehicles](#)



Electricity

Electricity can be used to power plug-in electric vehicles, which are increasingly available. Hybrids use electricity to boost efficiency.


[Hybrid & Plug-In Vehicles](#)



Ethanol

Ethanol is a widely used renewable fuel made from corn and other plant materials. It is blended with gasoline for use in vehicles.


[Flexible Fuel Vehicles](#)



Hydrogen

Hydrogen is a potentially emissions-free alternative fuel that can be produced from domestic resources for use in fuel cell vehicles.


[Fuel Cell Vehicles](#)



Natural Gas

Natural gas is a domestically abundant gaseous fuel that can have significant fuel cost advantages over gasoline and diesel fuel.

[Natural Gas Vehicles](#)



Propane

Propane is a readily available gaseous fuel that has been widely used in vehicles throughout the world for decades.

[Propane Vehicles](#)

Emerging Fuels


Several emerging fuels are considered alternative fuels under the [Energy Policy Act](#) and may be under development or already developed and available in the United States.

Tools

- [Vehicle Cost Calculator](#) — Compare costs and greenhouse gas emissions
- [Alternative Fuel and Advanced Vehicle Search](#) — Find a hybrid or alternative fuel vehicle

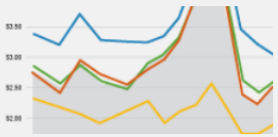
Vehicle Conversions

Conventional vehicles and engines can be modified to operate using a different fuel or power source.



Fuel Prices

Alternative fuel prices can fluctuate based on location, time of year, or political climate.



Great starting place for learning about the various fuels!

- Basics
- Benefits & Considerations
- Stations
- Vehicles
- Laws & Incentives

Vehicle Search

Alternative Fuels Data Center

Search the AFDC

SEARCH

FUELS & VEHICLES

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Fuels & Vehicles

Biodiesel

Electricity

Ethanol

Hydrogen

Natural Gas


Propane

Ready for Electric Vehicles?

Estimate how much electric vehicle charging your city or state might need.


ELECTRIC VEHICLE CHARGING STATION


Information by State





select a state

Information by Fleet Application

 Delivery Services

 Refuse Collection


 Public Transit

 School Transportation

Maps & Data

- U.S. Alternative Fueling Stations by Fuel Type
- U.S. Hybrid Electric Vehicle Sales by Model


Fuel Prices



Tools

- LAWS & INCENTIVES
- Electricity Sources & Emissions
- Vehicle Search

Station Locator



[Download iPhone app](#)

The Information Source for Alternative Fuels and Advanced Vehicles

The Alternative Fuels Data Center (AFDC) provides information, data, and tools to help fleets and other transportation decision makers find ways to reach their energy and economic goals through the use of alternative and renewable fuels, advanced vehicles, and other fuel-saving measures.

Vehicle Search

Alternative Fuels Data Center

Search the AFDC

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CONSERVE FUEL

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EERE » AFDC » Tools » Vehicle Search

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Alternative Fuel and Advanced Vehicle Search


Find and compare alternative fuel vehicles (AFVs), engines, and hybrid/conversion systems. Some of the light-duty AFVs in this tool may count toward vehicle-acquisition requirements for [federal fleets](#) and [state and alternative fuel provider fleets](#) regulated by the Energy Policy Act (EPAAct). Access a list of light-duty [Model Year 2018 Alternative Fuel and Advanced Technology Vehicles](#) or download a [spreadsheet of all vehicles](#).


Vehicles by Type



[Sedan/Wagon](#)



[Truck](#)



[SUV](#)



[Van](#)



[Step Van](#)



[Vocational/Cab Chassis](#)



[Street Sweeper](#)


[Refuse](#)


[Tractor](#)


[Shuttle Bus](#)


[Transit Bus](#)


[School Bus](#)

Vehicles by Manufacturer

Light-Duty

All

SEARCH

Medium- and Heavy-Duty

All

SEARCH

Engines and Hybrid/Conversion Systems

For medium- and heavy-duty vehicles:

ENGINE & POWER SOURCES

CONVERSION & HYBRID SYSTEMS

ABOUT THE DATA

Determine what fuels/ advanced vehicles are available for specific vehicle types.

7

Vehicle Search

Alternative Fuels Data Center

Search the AFDC

SEARCH

FUELS & VEHICLES

CONSERVE FUEL

LOCATE STATIONS

LAWS & INCENTIVES

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Share



Alternative Fuel and Advanced Vehicle Search

Find and compare alternative fuel vehicles (AFVs), engines, and hybrid/conversion systems. Some of the light-duty AFVs in this tool may count toward vehicle-acquisition requirements for [federal fleets](#) and [state and alternative fuel provider fleets](#) regulated by the Energy Policy Act (EPA). Access a list of light-duty [Model Year 2018 Alternative Fuel and Advanced Technology Vehicles](#) or download a [spreadsheet of all vehicles](#).

Vehicles by Type

 Sedan/Wagon	 Truck	 SUV	 Van
 Step Van	 Vocational/Cab Chassis	 Street Sweeper	 Refuse
 Tractor	 Shuttle Bus	 Transit Bus	 School Bus

Vehicles by Manufacturer

Light-Duty

All

SEARCH

Medium- and Heavy-Duty

All

SEARCH

Engines and Hybrid/Conversion Systems

For medium- and heavy-duty vehicles:

ENGINE & POWER SOURCES

CONVERSION & HYBRID SYSTEMS

ABOUT THE DATA

Vehicle Search

The screenshot shows the 'Alternative Fuels Data Center' website. The header is green with a search bar and navigation links: FUELS & VEHICLES, CONSERVE FUEL, LOCATE STATIONS, LAWS & INCENTIVES, Maps & Data, Case Studies, Publications, Tools (highlighted), About, and Home. Below the header, a breadcrumb trail reads 'EERE » AFDC » Tools » Vehicle Search'. On the right, there are links for 'Printable Version' and 'Share'.

The main heading is 'Alternative Fuel and Advanced Vehicle Search'. Below it, a paragraph explains the tool's purpose: 'Find and compare alternative fuel vehicles (AFVs), engines, and hybrid/conversion systems. Some of the light-duty AFVs in this tool may count toward vehicle-acquisition requirements for [federal fleets](#) and [state and alternative fuel provider fleets](#) regulated by the Energy Policy Act (EPAct). Access a list of light-duty [Model Year 2018 Alternative Fuel and Advanced Technology Vehicles](#) or download a [spreadsheet of all vehicles](#).'

The 'Vehicles by Type' section displays icons and links for various vehicle categories: Sedan/Wagon, Truck, SUV, Van, Step Van, Vocational/Cab Chassis, Street Sweeper, Tractor, Shuttle Bus, and Transit Bus. The 'Van' category is highlighted with a yellow box.

A modal window titled 'Pick Fuel/Technology Available for Vans' is open over the 'Van' category. It contains a list of fuel options with checkboxes: All, Biodiesel (B20), Ethanol (E85), Hydrogen Fuel Cell, CNG - Compressed Natural Gas (checked), Propane (checked), Electric, Plug-in Hybrid Electric (checked), and Hybrid Electric. A 'SEARCH' button is at the bottom right of the modal.

The 'Vehicles by Manufacturer' section has dropdown menus for 'Light-Duty' (set to 'All') and 'Medium and Heavy-Duty', each with a 'SEARCH' button. Below this, there are sections for 'Engines and Hybrid/Conversion Systems' with buttons for 'ENGINE & POWER SOURCES' and 'CONVERSION & HYBRID SYSTEMS', and an 'ABOUT THE DATA' button.

Vehicle Search



Alternative Fuel and Advanced Vehicle Search

Find and compare alternative fuel vehicles (AFVs), engines, and hybrid/conversion systems. Some of the light-duty AFVs in this tool may count toward vehicle-acquisition requirements for [federal fleets](#) and [state and alternative fuel provider fleets](#) regulated by the Energy Policy Act (EPA). Access a list of light-duty [Model Year 2018 Alternative Fuel and Advanced Technology Vehicles](#) or download a [spreadsheet of all vehicles](#).

Search Results - 1 - 8 of 21 vehicles

[New Search](#) | [Download](#) | [Print](#)

Filter by: **Fuel/Technology:** CNG - Compressed Natural Gas, Propane, Plug-in Hybrid Electric | **Class/Type:** Van |
Manufacturer: All

View:

Chevrolet Express 2500 (2018)



CNG - Compressed Natural Gas
Van

Engine: 6.0L V8
Transmission: Auto

[Find a Dealer](#)

Chevrolet Express 2500 (2018)



Propane
Van

Engine: 6.0L V8
Transmission: Auto

[Find a Dealer](#)

Chrysler Pacifica PHEV (2018)



Plug-in Hybrid Electric
Van

Fuel Economy: 84 MPGe city
Engine: 3.6L V6; 89 kW electric motor
Transmission: Auto

[Find a Dealer](#)

Ford Transit 150/250 Van/Wagon (2018)



CNG - Compressed Natural Gas
Van

Engine: 3.7L V6
Transmission: Auto

[Find a Dealer](#)

Ford Transit 150/250 Van/Wagon (2018)



Propane
Van

Engine: 3.7L V6
Transmission: Auto

Ford Transit Connect Van/Wagon (2018)



CNG - Compressed Natural Gas
Van

Engine: 2.5L I4
Transmission: Auto

Refine Your Search

Fuel/Technology

- ☐ All Fuels
- ☐ Biodiesel (B20)
- ☐ Ethanol (E85)
- ☐ Hydrogen Fuel Cell
- ☐ LNG - Liquefied Natural Gas
- ☒ CNG - Compressed Natural Gas
- ☒ Propane
- ☐ Electric
- ☒ Plug-in Hybrid Electric
- ☐ Hybrid Electric
- ☐ Hydraulic Hybrid
- ☐ Hybrid - Diesel Electric

Class/Type

- ☐ All Classes/Types
- ☐ Sedan/Wagon
- ☐ Truck
- ☐ SUV
- ☒ Van
- ☐ Step Van
- ☐ Vocational/Cab Chassis
- ☐ Street Sweeper
- ☐ Refuse
- ☐ Tractor
- ☐ Shuttle Bus
- ☐ Transit Bus
- ☐ School Bus

Manufacturer - Light-Duty +

Manufacturer - Med & Heavy-Duty +

Links go to OEM websites

Need to check Vehicle Availability in Your Area

Vehicle Search



Alternative Fuel and Advanced Vehicle Search

Find and compare alternative fuel vehicles (AFVs), engines, and hybrid/conversion systems. Some of the light-duty AFVs in this tool may be subject to acquisition requirements for [federal fleets](#) and [state and alternative fuel provider fleets](#) regulated by the Energy Policy Act (EPA). Access a list of light-duty [Model Year 2018 Alternative Fuel and Advanced Technology Vehicles](#) or download a [spreadsheet of all vehicles](#).

Search Results - 1 - 8 of 21 vehicles

[New Search](#) | [Download](#) | [Print](#)

Filter by: **Fuel/Technology:** CNG - Compressed Natural Gas, Propane, Plug-in Hybrid Electric | **Class/Type:** Van |
Manufacturer: All

View:

Refine Your Search

Fuel/Technology

- ☐ All Fuels
- ☐ Biodiesel (B20)
- ☐ Ethanol (E85)
- ☐ Hydrogen Fuel Cell
- ☐ LNG - Liquefied Natural Gas
- ☒ CNG - Compressed Natural Gas
- ☒ Propane
- ☐ Electric
- ☒ Plug-in Hybrid Electric
- ☐ Hybrid Electric
- ☐ Hydraulic Hybrid
- ☐ Hybrid - Diesel Electric

Class/Type

- ☐ All Classes/Types
- ☐ Sedan/Wagon
- ☐ Truck
- ☐ SUV
- ☒ Van
- ☐ Step Van
- ☐ Vocational/Cab Chassis
- ☐ Street Sweeper
- ☐ Refuse
- ☐ Tractor
- ☐ Shuttle Bus
- ☐ Transit Bus
- ☐ School Bus

Manufacturer - Light-Duty +

Manufacturer - Med & Heavy-Duty +

Chevrolet Express 2500 (2018)



CNG - Compressed Natural Gas
Van

Engine: 6.0L V8
Transmission: Auto

[Find a Dealer](#)

Chevrolet Express 2500 (2018)



Propane
Van

Engine: 6.0L V8
Transmission: Auto

[Find a Dealer](#)

Chrysler Pacifica PHEV (2018)



Plug-in Hybrid Electric
Van

Fuel Economy: 84 MPGe city
Engine: 3.6L V6; 89 kW electric motor
Transmission: Auto

[Find a Dealer](#)

Ford Transit 150/250 Van/Wagon (2018)



CNG - Compressed Natural Gas
Van

Engine: 3.7L V6
Transmission: Auto

[Find a Dealer](#)

Ford Transit 150/250 Van/Wagon (2018)



Propane
Van

Engine: 3.7L V6
Transmission: Auto

Ford Transit Connect Van/Wagon (2018)



CNG - Compressed Natural Gas
Van

Engine: 2.5L I4
Transmission: Auto

Download Information for Tables, Sorting,
Going through Options, etc.

Information by Fleet Application

Alternative Fuels Data Center

Search the AFDC

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Fuels & Vehicles

Biodiesel


Electricity

Ethanol

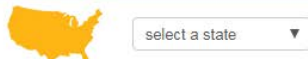
Hydrogen

Natural Gas

Propane



Information by State



Information by Fleet Application

Delivery Services

Refuse Collection

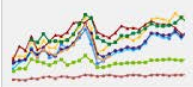
Public Transit

School Transportation

Maps & Data

- U.S. Alternative Fueling Stations by Fuel Type
- U.S. Hybrid Electric Vehicle Sales by Model


Fuel Prices




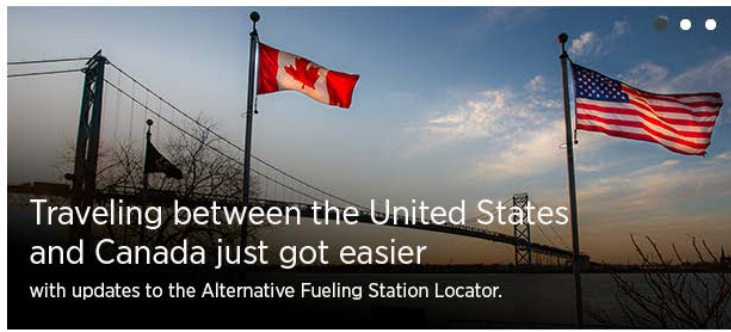
Tools

- Laws & Incentives
- Electricity Sources & Emissions
- Vehicle Cost Calculator
- Vehicle Search

Station Locator



 Download [iPhone app](#) or [Android app](#)



Traveling between the United States and Canada just got easier

with updates to the Alternative Fueling Station Locator.

The Information Source for Alternative Fuels and Advanced Vehicles

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Information by Fleet Application

Alternative Fuels Data Center

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Fleet Application Data and Information


Delivery Services


Refuse Collection


Public Transit


School Transportation

Fleet Application for Public Transit Vehicles

Find transportation data and information about the public transit vehicle application. Fleets in niche markets operate vehicles designed to serve specific functions, which makes these vehicles ideal for the adoption of alternative fuels and advanced vehicle technologies.

Vehicle Availability

40 vehicles

11

CNG - Compressed Natural Gas

21

Electric

10


Hybrid - Diesel Electric


2


Hydrogen Fuel Cell


3


LNG - Liquefied Natural Gas



BYD C10 45ft coach
● Electric


BYD C6 23ft coach
● Electric


BYD C9 40ft coach
● Electric


BYD K11 60ft transit
● Electric


BYD K7 30ft transit
● Electric

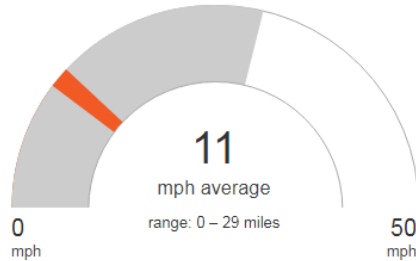

BYD K9 40ft transit
● Electric

Find Vehicle Types easily!

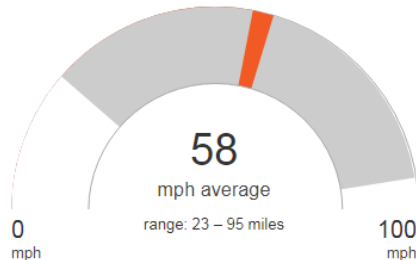
Information by Fleet Application

Vehicle Operation Data

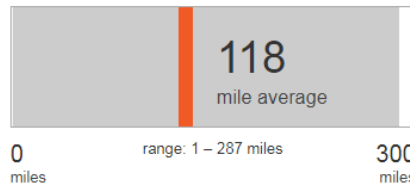
Average Speed



Maximum Speed



Daily Distance



Average operating time
11 hours per day



Average stops
290 stops per day
3 stops per mile



Data from [Fleet DNA](#) based on the average of 777 days of driving data from 23 public transit vehicles operating in the United States

Learn from Fleets with similar operations

Tip: Contact the Clean Cities Coordinator for more information:

<https://cleancities.energy.gov/coalitions/contacts/>

Case Studies



Santa Fe Metro Fleet Runs on Natural Gas
July 12, 2018



Alternative Fuels Help Ensure America's National Parks Stay Green for Another Century
June 30, 2016



Arkansas Launches Natural Gas-Powered Buses and Refueling

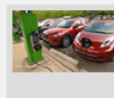
[More Case Studies](#)

Videos



[Text Version](#)

[More Public Transit Videos on YouTube](#)



North Carolina Commits to Clean Energy with EV Charging
Oct. 7, 2017



New Hampshire Cleans up with Biodiesel Buses
May 26, 2017



Electric Buses Hit the Streets in Kentucky
April 28, 2017

Information by Fleet Application

Publications



Reports

- Transportation Electrification Beyond Light Duty: Technology and Market Assessment September 2017
- Zero Emission Bay Area (ZEBA) Fuel Cell Bus Demonstration Results: Sixth Report September 2017
- Foothill Transit Battery Electric Bus Demonstration Results: Second Report June 2017
- King County Metro Battery Electric Bus Demonstration: Preliminary Project Results May 2017
- American Fuel Cell Bus Project Evaluation: Third Report May 2017
- American Recovery and Reinvestment Act: Clean Cities Project Awards October 2016
- Zero Emission Bay Area (ZEBA) Fuel Cell Bus Demonstration Results: Fifth Report June 2016
- Foothill Transit Battery Electric Bus Demonstration Results January 2016
- Developing a Natural Gas-Powered Bus Rapid Transit Service: A Case Study November 2015
- American Fuel Cell Bus Project Evaluation: Second Report September 2015
- Zero Emission Bay Area (ZEBA) Fuel Cell Bus Demonstration Results: Fourth Report July 2015
- Strategic Planning to Enable ESCOs to Accelerate NGV Fleet Deployment: A Guide for Businesses and Policymakers July 2015
- Building a Business Case for Compressed Natural Gas in Fleet Applications March 2015
- Costs Associated With Compressed Natural Gas Vehicle Fueling Infrastructure September 2014
- Zero Emission Bay Area (ZEBA) Fuel Cell Bus Demonstration Results: Third Report May 2014



Brochures & Fact Sheets

- Massachusetts Fuel Cell Bus Project: Demonstrating a Total Transit Solution for Fuel Cell Electric Buses in Boston May 2017
- Fleets Run Cleaner on Natural Gas; Emissions and Environmental Benefits of Natural Gas Vehicle September 2016
- CNG and Fleets: Building Your Business Case September 2015



Presentations

- Foothill Transit Agency Battery Electric Bus Progress Report, Data Period Focus: Jan. 2017 through Dec. 2017 May 2018

Clean Cities News and Events



Blog

Technologies That Will Transform the Transportation System ▶



Webinar

Introduction to NOx Emissions and What's new in the Alternative Fuel Life-Cycle Environmental and Economic Transportation (AFLEET) Tool ▶



Webinar

Compressed Natural Gas (CNG) Safety Assurance Efforts ▶

[More News and Events ▶](#)

Publications:

- Reports
- Brochures & Fact Sheets
- Presentations

Fuels & Vehicles

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Fuel Prices

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Fleet Rightsizing
System Efficiency

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Locate Stations

Alternative Fuels Data Center

LOCATE STATIONS

Alternative Fueling Station Locator

Find alternative fueling stations in the United States and Canada. For U.S. stations, see [data by state](#). For Canadian stations in French, see [Natural Resources Canada](#).

Public Stations | **Advanced Filters** | U.S. and Canada

new orleans | All Fuels | Map a Route

Stations List:

- A** 412 O'Keefe 0.1 mi
Garage
412 O'Keefe Ave
New Orleans, LA 70112
Level 2
- B** Premium Parking 0.1 mi
650 O'Keefe Ave
New Orleans, LA 70113
Level 2
- C** Rouses Market 0.2 mi
701 Baronne St
New Orleans, LA 70113
DC Fast
- D** Aloft New Orleans Downtown - Tesla 0.2 mi
225 Baronne St
New Orleans, LA 70112

Map Legend:

- Biodiesel
- CNG
- Electric
- Ethanol
- Hydrogen
- LNG
- Propane

Powered by Esri | Esri, HERE, Garmin, NGA, USGS, NPS

[iPhone App for U.S. stations](#) | [Android App for U.S. stations](#) | [Developer APIs](#) | [Embed Tool](#) | [Submit New Station](#) | [About the Data](#)

- Check for existing infrastructure around fleet's "home base" as well as in the service area
 - ❖ Many fleets don't realize that fueling stations are available
- Identify gaps in fueling infrastructure
 - ❖ Determine if a fleet will need their own fueling station

Laws & Incentives

Alternative Fuels Data Center

Search the AFDC **SEARCH**

FUELS & VEHICLES **CONSERVE FUEL** **LOCATE STATIONS** **LAWS & INCENTIVES** **Maps & Data** **Case Studies** **Publications** **Tools** **About** **Home**

EERE » AFDC » Laws & Incentives [Printable Version](#) [Share](#)

Federal and State Laws and Incentives
Find federal and state laws and incentives for alternative fuels and vehicles, air quality, fuel efficiency, and other transportation-related topics.

Federal
laws and incentives

State
laws and incentives
 GO

Search All Laws and Incentives
Use an advanced or keyword search to find a specific federal or state law or incentive.

View Tables of Laws and Incentives
View laws and incentives sorted by [technology/fuel](#), [incentive](#), [regulation](#), or [user](#).

Read Key Legislation
Read selected legislation summaries about alternative transportation technologies.

Find Local Laws and Incentives
Find examples of laws and incentives from local governments.

What's New
[Recent State Updates](#)
[Recent Federal Actions](#)

Maps & Data
Case Studies
Publications
Tools

Search
Federal
State
Local Examples
Summary Tables

For questions or to submit an incentive, email the [Technical Response Service](#). For additional incentives, search the [Database of State Incentives for Renewables & Efficiency](#).

This information provides an overview of laws and incentives and should not be your only source of information for making decisions about vehicle purchases, taxes, or other binding agreements. Please refer to the federal and state contacts included to verify these laws and incentives are still applicable, and consult your tax advisor.

- Check current Federal incentives
- Check our State incentives for links to the original legislation to re-read
- Look at other States' laws & incentives to inform our efforts

Laws & Incentives

Search Federal and State Laws and Incentives

Search incentives and laws related to alternative fuels and advanced vehicles. Choose one or more jurisdictions to start your search. Select additional options to narrow your search.

Category	Keyword
Jurisdiction <ul style="list-style-type: none"><input type="checkbox"/> All<input checked="" type="checkbox"/> Federal<input type="checkbox"/> Alabama<input type="checkbox"/> Alaska<input type="checkbox"/> Arizona<input type="checkbox"/> Arkansas<input type="checkbox"/> California	Technology/Fuel <ul style="list-style-type: none"><input type="checkbox"/> All<input type="checkbox"/> Biodiesel<input type="checkbox"/> Ethanol<input type="checkbox"/> Natural Gas<input type="checkbox"/> Propane (LPG)<input type="checkbox"/> Hydrogen Fuel Cells<input checked="" type="checkbox"/> EVs
Incentive/Regulation <ul style="list-style-type: none"><input type="checkbox"/> All<input type="checkbox"/> Acquisition or Fuel Use<input checked="" type="checkbox"/> Grants<input type="checkbox"/> Driving or Idling<input checked="" type="checkbox"/> Tax Incentives<input type="checkbox"/> Registration or	User <ul style="list-style-type: none"><input type="checkbox"/> All<input type="checkbox"/> Vehicle Owner or Driver<input checked="" type="checkbox"/> Fleet Purchaser or Manager<input type="checkbox"/> Fueling or TSE Infrastructure Owner<input type="checkbox"/> Alternative Fuel

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Qualified Plug-In Electric Vehicle (PEV) Tax Credit

10 Results for:
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Jurisdiction

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Federal

Federal

Federal

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Federal

Federal

Federal

Louisiana

Type: Incentives | Jurisdiction: Federal

A tax credit is available for the purchase of a new qualified PEV that draws propulsion using a traction battery that has at least five kilowatt-hours (kWh) of capacity, uses an external source of energy to recharge the battery, has a gross vehicle weight rating of up to 14,000 pounds, and meets specified emission standards. The minimum credit amount is \$2,500, and the credit may be up to \$7,500, based on each vehicle's traction battery capacity and the gross vehicle weight rating. The credit will begin to be phased out for each manufacturer in the second quarter following the calendar quarter in which a minimum of 200,000 qualified PEVs have been sold by that manufacturer for use in the United States. This tax credit applies to vehicles acquired after December 31, 2009. For more information, including qualifying vehicles and sales by manufacturer, see the Internal Revenue Service (IRS) [PEV Credit](#) website. Also refer to IRS Form 8936, which is available via the [IRS Forms and Publications](#) website.

(Reference [Public Law](#) 112-240, Section 403; and 26 [U.S. Code](#) 30D)

Point of Contact

U.S. Internal Revenue Service

Phone: (800) 829-1040

<http://www.irs.gov/>

Airport Zero Emission Vehicle (ZEV) and Infrastructure Incentives

Incentives

Low and Zero Emission Public Transportation Research, Demonstration, and Deployment Funding

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Alabama Prisons Adopt Propane, Establish Fuel Savings for Years to Come

Ever since Alabama Clean Fuels Coalition (ACFC) hosted its annual Propane Road Show in 2012, officials from the state's Department of Corrections (ADOC) were inspired to see if the fuel could work in their own fleet.

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- ☐ Ethanol
- ☐ Hydrogen
- ☐ Propane
- ☐ Natural Gas
- ☐ All-Electric
- ☐ Hybrid Electric
- ☐ Plug-In Hybrid Electric
- ☐ Fuel Economy Improvements
- ☐ Idle Reduction

Applications

- ☐ All Applications
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- ☐ Refuse Collection
- ☐ Taxi Services
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July 23, 2018	Propane Mowers Help National Park Cut Emissions	Web Story
July 12, 2018	Santa Fe Metro Fleet Runs on Natural Gas	Web Story
July 11, 2018	Ryder Opens Natural Gas Vehicle Maintenance Facility	Web Story
July 11, 2018	Liquefied Natural Gas Allows for Cleaner Refuse Collection in Sacramento	Web Story
June 27, 2018	Home Improvement Retailer Offers Propane Fueling	Web Story
May 29, 2018	Electric Refrigeration Translates Fuel Burn into Savings for Nonprofit	Web Story
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 - Fleet Managers
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- ☐ Natural Gas
- ☐ All-Electric
- ☐ Hybrid Electric
- ☐ Plug-In Hybrid Electric
- ☐ Fuel Economy Improvements
- ☒ Idle Reduction

Applications

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July 20, 2013	Idaho County Employs FFVs and Idle Reduction	Video
April 7, 2011	County Fleet Goes Big on Idle Reduction, Ethanol Use, Fuel Efficiency	Web Story
Nov. 27, 2009	Dallas Police Department Reduces Vehicle Idling	Video

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County Fleet Goes Big on Idle Reduction, Ethanol Use, Fuel Efficiency

“ We’re cutting our fuel use, and we’re doing it safely-everything runs at peak performance. We’re never going to leave our people hanging or compromise their safety.”

Mark Tolman; Fleet Manager; Canyon County, Idaho

With a population of about 200,000, Canyon County, Idaho, may not be very big. But its recent successes in reducing petroleum use are enormous. About two years ago, Canyon County Fleet Manager Mark Tolman puzzled over a problem shared by countless public officials throughout the country: How would he provide a high level of service to his community in the face of shrinking budgets?

Tolman worked with Treasure Valley Clean Cities to develop a strategy that made better use of his existing fleet resources while also embracing new technologies and fuels. He convened a "utilization team" that included input of vehicle drivers in every county department.

also purchased fleet-management software that allowed him to better track and scrutinize fuel use, vehicle utilization, idling time, and employee mileage reimbursements.

Armed with the new data, Tolman trimmed the county's fleet from 325 vehicles to 220. He developed a new replacement schedule that incorporated E85 and hybrid vehicles into the fleet wherever possible. He started filling tires with nitrogen. And the Fleet Department installed two new 12,000-gallon fuel tanks (one for gasoline, one for ethanol) and a blending dispenser that allows workers to specify the level of ethanol in the fuel they use.

Before Tolman's project began, he knew fuel was being wasted in idling patrol cars in the Sheriff's Department, but once he had the hard numbers in front of him, "It was just shocking," he said. Each patrol car was idling for up to five hours per day, using about 1 gallon of fuel per hour of idle time.

Canyon County fleet workers installed idle-reduction equipment on nearly all of the more than 60 patrol cars in the sheriff's department, eliminating 36 "ghost miles" and 100 pounds of carbon dioxide emissions per day for each car. "We're cutting our fuel use, and we're doing it safely-everything runs at peak performance. We're never going to leave our people hanging or compromise their safety," Tolman said.

The Canyon County Fleet Department is eliminating an estimated 1.4 million pounds of carbon dioxide emissions every year and improving its vehicles' fuel economy by 4 mpg to 6 mpg.

"Using technologies that are already widely available, we realized immediate cost savings to Canyon County," he said. "We are maintaining a top-notch fleet, trimming our budget with minimal disruptions to ongoing operations, reducing our dependence on foreign oil, shrinking our environmental footprint, and serving as an example for other fleets."

Project at a Glance

Fleet Type: County government, law enforcement

Number of Vehicles in Fleet: 220


Vehicles Eliminated via Rightsizing: 105

Infrastructure: E85 blender pump

Motivation: Cost savings, fuel savings, emissions reductions

Related Links

- [Idle Reduction Basics](#)
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Idling Reduction for Emergency and Other Service Vehicles		5/7/2015	Brochures & Fact Sheets
Economics of Idling Reduction Options for Long-Haul Trucks	Gaines, L.	8/1/2017	Brochures & Fact Sheets
Case Study Summary - Idle Reduction Technologies for Emergency Service Vehicles	Gaines, L.	7/1/2017	Brochures & Fact Sheets
School Bus Idling Reduction: Project Report and Implementation Guide for Oklahoma School Districts		1/1/2009	Reports
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NREL/CP-5400-53864. Posted with permission.
Presented at the 2012 SAE World Congress,
24-26 April 2012, Detroit, Michigan

Analyzing Vehicle Fuel Saving Opportunities through Intelligent Driver Feedback

Jeffrey Gonder, Matthew Earleywine and Witt Sparks
National Renewable Energy Laboratory

2012-01-0494
Published



ANL/ESD-16/3

ABSTRACT

While it is well known that "MPG will vary" based on how one drives, little independent research exists on the aggregate fuel savings potential of improving driver efficiency and on the best ways to motivate driver behavior changes. This paper finds that reasonable driving style changes could deliver fuel savings of 30% or more. However, the effectiveness of feedback approaches may be insufficient to convince many people to adopt efficient driving habits. To quantify the other benefit of fuel savings for driver cycle modification, the project examines completely eliminating stop-and-go driving plus unnecessary idling, and adjusting acceleration rates and throttle position. The results show that for a typical passenger vehicle powertrain, such extreme adjustments result in dramatic fuel savings of over 30%, but would in reality only be achievable through automated control of vehicles and traffic flow. Considering the effects of real-world driving conditions, efficient driver behaviors could reduce fuel use by 10% for typical driver cycles and by 5-10% on more moderately driven drives.

To evaluate potential receptiveness to changing driving habits, the project team conducted a literature survey of driver behavior influences and observed pertinent factors from on-road experiments with different driving styles. This effort highlighted important driver influences such as surrounding vehicle behavior, anxiety over trying to get somewhere quickly, and the power/torque available from the vehicle. Existing feedback approaches often effectively deliver efficiency information and instruction, but do not always do so in an easy way that avoids unintended consequences. Based on these findings the report details three recommendations for maximizing fuel savings from potential driver cycle improvement: (1) Leverage applications with enhanced incentives, (2) Use an approach that makes it easy

and is widely-deployable to motivate connected vehicle and automation large and widespread efficiency imp

INTRODUCTION

Data show that the reported fuel economy can vary by plus or minus 20% across drivers [1]. Some of this variation in temperatures and road conditions of driver behavior also accounts for. It stands to reason that if drivers use efficient driving habits, then the results for any given vehicle would be better. The U.S. Department of Energy (DOE) Renewable Energy Laboratory (REL) has a potential fuel saving opportunity by using feedback techniques and to help drivers use techniques may deliver the greatest benefits. This paper summarizes NREL's findings.

APPROACH

NREL divided the driver feedback separate tasks: (1) quantifying the from drive cycle modification; (2) influence drivers' receptiveness to; and (3) assessing various driver feel performed both simulations and experiments and leveraged a conventional vehicle study for the simulation effort [2]. Similar design and fuel economy of Chevrolet Malibu [1]. Note that this on conventional (rather than hybrid) because of DOE's interest in what it could do for the existing U.S. vehicle consists of conventional powertrain

Case Study – Idling Reduction Technology for Emergency Service Vehicles

Energy Systems Division



Work Truck Idling Reduction

Work trucks are everywhere—delivering packages to our doorsteps, removing refuse, and towing disabled vehicles. Unlike the 18-wheelers that travel over 500 miles per day, work trucks typically travel short distances from home base to work site and are tailored to perform a specific service.

Utility trucks are common work trucks used for installing and repairing electric and telecommunication lines, powering equipment and tools, and supplying heating, ventilation, and air conditioning (HVAC) for workers in the cab or down a manhole.

In order for utility trucks to carry out these functions, power from the vehicle's transmission is diverted to provide power for onboard equipment—such as raising and lowering workers in the bucket on a bucket truck. This process is called *power take-off (PTO)* and often requires that the vehicle engine runs nonstop, though work may only be performed intermittently. The idling while the vehicle or equipment is not in use wastes fuel, causes engine wear, and generates noise and emissions.

Solutions

To eliminate unnecessary idling for PTO, auxiliary power sources can be used to more efficiently provide power to on-board equipment. Auxiliary power sources typically include batteries charged from the electrical grid overnight, recharged while the vehicle's engine is running, or through regeneration technology that captures energy lost during braking while the vehicle is in motion. Utility companies can purchase a new hybrid truck or retrofit an existing truck with an auxiliary battery system to power electric or hydraulic equipment and provide climate control for the crew compartment.

Clean Cities: Idling Reduction



Hybrid utility truck allows for work on utility lines without engine idling. Photo credit: Atec, Inc.

Benefits

In addition to the reduced costs from fuel and maintenance, hybrid utility trucks have several benefits without direct financial payback. The reduction in idling significantly reduces the amount of noise and emissions produced and creates a safer work environment for the utility crew. The quieter operations also allow crews to work later into the evenings without disrupting the surrounding residents.

Since the main engine is used for fewer hours, a hybrid utility truck will have a longer service life than its conventional counterpart and it provides the ability to run small power tools from the battery. Work is underway to enable hybrid utility trucks to supply emergency power to utility customers during a power outage.

The reduction in idling significantly reduces the amount of noise and emissions produced and creates a safer work environment for the utility crew.

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technicalresponse@icf.com / 1-800-254-6735

Alexis Schayowitz, Senior Manager
ICF
alexis.schayowitz@icf.com
(617) 250-4281

Rebecca Otte, Director
Southeast Louisiana Clean Fuel Partnership
rotte@norpc.org
(504) 483-8513