



Annual Survey of Alternative Fueled Vehicles Form EIA-886

PURPOSE

The U.S. Energy Information Administration's (EIA) Form EIA-886, *Annual Survey of Alternative Fueled Vehicles*, collects information on the number and type of alternative fueled vehicles (AFVs) and other advanced technology vehicles (e.g., hybrid and fuel cell vehicles) that vehicle suppliers made available in 2018 and plan to make available in 2019; the number, type and location of AFVs in use in 2018; the amount and distribution of each type of alternative fuel consumed in 2018; the number of miles traveled by AFVs in 2018; and retirement of AFVs. The data collected are used to satisfy public requests for information on AFVs and to provide Congress with a measure of the extent to which the objectives of the Energy Policy Act of 1992 are being achieved. A summary of the data will appear in the *Annual Energy Review* and the EIA website.

REQUIRED RESPONDENTS

Form EIA-886 is **mandatory** pursuant to Section 13(b) of the Federal Energy Administration Act of 1974 (Public Law 93-275). All organizations supplying alternative fueled vehicles or other advanced technology vehicles (e.g., hybrid and fuel cell vehicles) are required to complete this form. Also, all organizations using any quantity of alternative fueled vehicles are required to complete this form.

DUE DATE

Respondents have **60** days from receipt of notification to comply and submit the Form EIA-886.

HOW TO FILE A RESPONSE

Respondents can submit data by the Internet using an encrypted web system, email, fax, phone or mail. With the Internet-based option, EIA uses security protocols to protect the information against unauthorized access during transmission. Commonly used fax and email transmissions, including files attached to email messages, travel over ordinary telephone lines and are not considered secure electronic methods of transmitting survey data.

Secure Communications Methods

- By Internet: <https://eiaweb.inl.gov> (256 bit Secure Sockets Layer [SSL] encryption system)
- By mail: (First class mail is considered a secure communications method for confidential data)
Ms. Michelle Kirby
Form EIA-886
Department of Energy's Idaho National Laboratory
P.O. Box 1625 Mailstop 3129
Idaho Falls, ID 83415-3129

Unsecured Communications Methods

- By email: michelle.kirby@inl.gov
By fax: Fax Number (208) 526-0560 Attn: Form EIA-886
By phone: (208) 526-4273

QUESTIONS

For questions or additional information regarding the Form EIA-886, contact the Survey Manager:

Name: Cynthia Sirk
Telephone: (202) 586-1658
Email: cynthia.sirk@eia.gov



PART 1: IDENTIFICATION INFORMATION

1 What is the name and mailing address of the organization for which you are reporting?

Organization Name:

Mailing Address:

City: State: Zip Code: -

2 What is your contact information?

Contact Name:

Email Address:

Phone: () - Fax: () -

3 What is the contact information for your supervisor?

Contact Name:

Email Address:

Phone: () - Fax: () -

4 Which of the following best describes your organization's operational status as of December 31, 2018?

- My organization is in operation - **Continue to Part 1, Item 5.**
- My organization is no longer in operation - **Submit this form to EIA.**
- My organization was sold or merged with another organization

Enter the new organization contact information below. Submit this form to EIA.

Organization Name:

Mailing Address:

City: State: Zip Code: -

Contact Name:

Email Address:

Phone: () - Fax: () -

PART 1 continues on the next page.



PART 1 CONTINUED: IDENTIFICATION INFORMATION

5 Which of the following alternative fueled vehicle (AFV) activities occur at your organization?

Select all that apply.

Alternative fueled vehicle (AFV): An onroad vehicle designed to operate on an alternative fuel (e.g., compressed natural gas, ethanol 85%, electricity). The vehicle can be either a dedicated vehicle designed to operate exclusively on alternative fuel or a nondedicated vehicle designed to operate on alternative fuel and/or traditional fuel.

- My organization is an AFV user and operated onroad AFVs in the U.S. during the calendar year 2018 (regardless of the amount of alternative fuel consumed) - **Complete Part 2**
- My organization is an Original Equipment Manufacturer (OEM) of alternative fueled vehicles. This includes manufacturers of advanced technology vehicles such as hybrids and fuel cell vehicles - **Complete Part 3**
- My organization is an Aftermarket Vehicle Converter, which includes converting, modifying, or repowering onroad vehicles to run on alternative fuel. The conversion is performed after the vehicle's initial delivery to the end user - **Complete Part 3**
- My organization is none of the above - **Provide EIA with an explanation as to why none of the above AFV activities apply to your organization in the comment box below then submit this form to EIA.**

PART 2: DATA FROM USERS OF AFVS

1 For each state your fleet predominantly operates in as of December 31, 2018, what is the vehicle type, weight class (GVWR), fuel type, engine configuration, primary application, quantity of AFVs in use, total annual miles traveled, total alternative fuel consumed, and unit of measurement for each vehicle in your fleet?

Notes:

- For vehicles that operate across state lines, provide the predominant location of operation.
- Refer to the codes on page 6 of this form to fill out the table below; copy this page if additional space is needed.
- **GVWR** refers to vehicle weight classification as defined in the EPA's [Emissions Standards Reference Guide](#) and can be found on the vehicle's emissions label under the hood in the engine compartment.
- **Engine configuration** refers to the vehicle's ability to operate exclusively on alternative fuel (dedicated) or on a combination of alternative fuel and traditional fuel (e.g., bi-fueled, flexible fueled, plug-in hybrid).
- For total annual miles traveled and alternative fuel consumed, provide estimates if actual data are not available.

Include:

- All AFVs in the fleet, even those that do not consume alternative fuel but are capable of using it.
- Plug-in hybrid electric vehicles.

Do Not Include:

- Hybrid electric vehicles or fuel cell vehicles if the input fuel is gasoline or diesel fuel.
- Vehicles operating on biodiesel (any percentage less than 100% biodiesel such as B20).

Electric Vehicle and Plug-in Hybrid Electric Vehicle Users:

- If consumption of electricity is not tracked, provide an explanation in the comment field when entering data in the table.
- Answer the questions in Section 2 related to electric vehicle usage and refueling.

State	Vehicle Type	GVWR Class	Alternative Fuel Type	Engine Configuration	Primary Application	Quantity of AFVs in Use	Total Annual Miles Traveled	Total Alternative Fuel Consumed	Unit of Measurement

2 For electric and plug-in hybrid electric vehicle users, provide information on refueling your vehicles.

How do you charge your electric/plug-in hybrid electric vehicles? On-site Charging Station Public Other (explain below)

For plug-in hybrid electric vehicles, can you track or estimate the percentage of time spent using the battery? Yes No

For plug-in hybrid electric vehicles, do you track mileage based on gasoline usage? Yes No

Does your electric utility provide separate billing on kilowatt hours used for refueling? Yes No

3 Did your organization retire vehicles from the fleet during calendar year 2018? Yes - complete the table below No

State	Vehicle Type	Alternative Fuel Type	Age of Retired AFV (in months)	Number retired, scrapped, or converted to traditional fuel	Number sold or transferred to another entity for use as an AFV

4 Do you have any comments for Part 2?



PART 3: DATA FROM SUPPLIERS OF AFVS AND OTHER ADVANCED TECHNOLOGY VEHICLES

1 For all AFVs and advanced technology vehicles supplied by your organization during calendar year 2018, what is the vehicle type, weight class (GVWR), model name, alternative fuel type, engine configuration, quantity made available in 2018, and quantity planned to be made available in 2019?

Notes:

- Refer to the codes on page 6 of this form to fill out the table below.
- **Made Available** means the vehicle either was delivered for the first time to a dealer, leasing company, or end user; was available for delivery to a dealer, leasing company, or end user; or was otherwise placed “in use” during the reporting period.
- **GVWR** refers to vehicle weight classification as defined in the EPA’s [Emissions Standards Reference Guide](#) and can be found on the vehicle’s emissions label under the hood in the engine compartment.
- **Engine configuration** refers to the vehicle’s ability to operate exclusively on alternative fuel (dedicated) or on a combination of alternative fuel and traditional fuel (e.g., bi-fueled or flexible fueled).
- If you need additional space, make copies of this page.

Include:

- Gasoline and Diesel Electric Hybrid vehicles, which are advanced technology vehicles.
- Plug-in Hybrid Electric Vehicles.

Do Not Include:

- Vehicles previously reported, such as leased vehicles in a prior year.
- Vehicles capable of operating on biodiesel (e.g., B20 or any percentage less than 100% biodiesel).

Vehicle Type	GVWR Class	Model Name	Alternative Fuel Type	Engine Configuration	Quantity Made Available in 2017	Quantity Planned to be Made Available in 2018

2 Do you have any comments for Part 3?



CODES—for use when filing Parts 2 & 3 of the form

VEHICLE TYPES

SUB	Auto-Subcompact
COM	Auto-Compact
MID	Auto-Midsize
FUL	Auto-Fullsize
SUV	Sport Utility Vehicle
PUT	Pickup Truck
TRK	Truck
VPG	Van-Passenger
VCG	Van-Cargo Van
BSC	Bus-School
BIN	Bus-Intercity
BST	Bus-Transit (<27'6")
BLT	Bus-Transit (>27'6")
BTR	Bus-Trolley Bus
LSV	Low Speed Vehicle
MTC	Motorcycle
OTH	Other (please specify)

GROSS VEHICLE WEIGHT RATING CLASSES (GVWR)

GVWR can be located on the emissions label normally found under the hood in the engine compartment.

2a	less than 8,501 lbs (Light Duty)
2b	8,501—10,000 lbs
3	10,001—14,000 lbs
4	14,001—16,000 lbs
5	16,001—19,500 lbs
6	19,501—26,000 lbs
7	26,001—33,000 lbs
8	greater than 33,000 lbs

ALTERNATIVE FUEL TYPES

BIO	Biodiesel (B100)
CNG	Compressed Natural Gas
EVC	Electricity (battery powered)
E85	85% Ethanol
DSL	Diesel (hybrid vehicles only [Part 3])
GAS	Gasoline (hybrid vehicles only [Part 3])
HYD	Hydrogen
LNG	Liquid Natural Gas
LPG	LPG/Propane
PSF	P-Series
OTH	Other (please identify in a footnote)

For hybrid and fuel cell vehicles

HCN	Hybrid – CNG & Electricity
HLN	Hybrid – LNG & Electricity
HET	Hybrid – Ethanol & Electricity
HLP	Hybrid – LPG (propane) & Electricity
HHY	Hybrid – Hydrogen & Electricity
HBI	Hybrid – Biodiesel & Electricity
HOT	Hybrid – Other

ENGINE CONFIGURATIONS

BI	Bi-Fuel
DE	Dedicated
FF	Flexible Fuel
BP	Battery Powered
PH	Plug-in Hybrid Electric
HG	Hybrid Gas Turbine/Battery
HI	Hybrid Internal Combustion/Battery
RF	Fuel Cell w/ Reformer/Battery
FC	Fuel Cell w/o Reformer/Battery

PRIMARY APPLICATION TYPES

Passenger Transportation	
AIRS	Airport shuttles (including hotel/rental car shuttles)
INTR	Interstate/intercity bus transportation
OTHS	Other shuttle service
PARA	Paratransit (a.k.a. demand response)
PERS	Personal transportation
RENT	Daily or short-term rental
STUD	Student Transportation
TAXI	For-hire (i.e., taxi/ limousine)
TRAN	Transit

Cargo Transport and Business Services

ADMN	Administrative
AIRG	Airport ground support and maintenance
DELE	Delivery of energy products (e.g., propane, LNG)
DELM	Delivery of mail and packages
DELO	Other delivery fleets
EMD	Emergency/medical
LAW	Law enforcement
MAIN	Maintenance of public facilities
MIX	Mixed use
OTH	Other (please specify)
OTHM	Other maintenance (including fleet maintenance)
TRAD	Tradesman
UTIL	Utility
WMGT	Waste management

UNITS OF MEASUREMENT

GAL	Gallons (native units)
GGE	Gasoline Gallon Equivalent
DGE	Diesel Gallon Equivalent
KWH	Kilowatt Hours
CCF	Hundred Cubic Feet
THERM	Therms
KGS	Kilograms



DEFINITIONS

Alternative fuel: Alternative fuels, for transportation applications, include the following:

- methanol
- denatured ethanol, and other alcohols
- fuel mixtures containing 85 percent or more by volume of methanol, denatured ethanol, and other alcohols with gasoline or other fuels
- natural gas (including compressed and liquefied natural gas)
- liquefied petroleum gas (propane)
- hydrogen
- coal-derived liquid fuels
- fuels (other than alcohol) derived from biological materials (biofuels such as soy diesel fuel)
- electricity (including electricity from solar energy)

Alternative fueled vehicle (AFV): A vehicle designed to operate on an alternative fuel (e.g., compressed natural gas, methane blend, electricity). The vehicle can be either a dedicated vehicle designed to operate exclusively on alternative fuel or a non-dedicated vehicle designed to operate on alternative fuel and/or traditional fuel.

AFV User: Any organization that operated an AFV in the U.S. during the calendar year 2017

AFV Supplier:

- **Original Equipment Manufacturer:** An entity (company, organization, association, etc.) that markets and warrants a vehicle (onroad) for use in the U.S. This includes organizations that perform vehicle conversions before the vehicle is initially delivered to an end user for use in the U.S.
- **Aftermarket Vehicle Conversion/Repowering Facility:** An entity that converts, modifies, or repowers vehicles from one fuel or source of power to another for use in the U.S. The conversion is performed after the vehicle's initial delivery to an end user.

Advanced Technology Vehicle: Standard hybrid electric vehicles and fuel cell vehicles whose input fuel is gasoline or diesel.

Engine Configuration: Refers to the engine's capacity to operate on a single fuel or multiple fuels as described below:

- **Bi-Fueled:** A vehicle that can operate on two different fuels, but not on a mixture of the fuels. Each fuel is stored in a separate tank. Typically, these vehicles will consume the ATF until the supply is exhausted, then switch over, often automatically, to use the traditional fuel.
- **Flexible-Fueled:** A vehicle that has a single fuel storage and combustion system that can be fueled with either a blended alcohol fuel (e.g., E85), a traditional fuel (usually gasoline), or any combination of the fuels.
- **Dedicated:** A vehicle that operates ONLY on the ATF, as when a vehicle is configured to operate exclusively on CNG.
- **Battery Powered:** A vehicle that uses electric power stored in batteries as its primary energy source; the batteries are recharged by being connected to traditional electrical power sources, such as being "plugged-in" to an electrical outlet that supplies electricity generated by electric power plants. These vehicles do not include on-board electricity generating capabilities, as do hybrid electric vehicles.
- **Plug-in Hybrid Electric:** A vehicle that uses the electric battery as the primary energy source by relying on battery power for propulsion for a limited range (15-40 miles) before switching to internal combustion propulsion.
- **Hybrid:** A vehicle with an on-board electrical generating system, excluding fuel cell technology. For example, an internal combustion engine may generate electricity to directly charge the batteries (series hybrid) that propel a vehicle; or both generate electrical power to propel the vehicle and recharge the batteries (parallel hybrid).
- **Fuel Cell(s):** In a typical fuel cell configuration, the fuel cell will supply electricity to an electric motor that will, in turn, power the vehicle. Fuel cell configurations often include a battery whose charge will also be maintained by the fuel cell. When the motor requires more power than can be supplied by the fuel cell alone, the power to the motor is augmented by the power stored in the battery. Subsequently, when the load on the motor is reduced, surplus power produced by the fuel cell will recharge the battery. A fuel cell produces electricity through an electro-chemical reaction that occurs between hydrogen and oxygen. Hydrogen fuel and oxygen may be fed directly into the fuel cell. Alternatively, other feedstocks (e.g., Methanol) may indirectly supply hydrogen to the fuel cell. In the latter situation, a reformer converts the feedstock (methanol) to hydrogen. The hydrogen supplied by the reformer is fed directly into the fuel cell (with oxygen).

Gross Vehicle Weight Rating: Refers to the maximum operating weight/mass of a vehicle as specified by the manufacturer including the vehicle's chassis, body, engine, engine fluids, fuel, accessories, driver, passengers and cargo but excluding that of any trailers. Weight ratings are defined by the EPA's [Emissions Standards Reference Guide](#) and can be found on the vehicle's emissions label normally found under the hood in the engine compartment.



SANCTIONS

The timely submission of Form EIA-886 by those required to report is mandatory under the Federal Energy Administration Act of 1974 (FEAA), Public Law 93-275, as amended. Failure to respond may result in a civil penalty of not more than \$2,750 for each violation or a fine of not more than \$5,000 for each criminal violation.

The Government may bring a civil action to prohibit reporting violations that may result in a temporary restraining order or a preliminary or permanent injunction without bond. In such civil action, the court may also issue mandatory injunctions commanding any person to comply with these reporting requirements.

Title 18 U.S.C. 1001 makes it a criminal offense for any person knowingly and willingly to make to any Agency or Department of the United States any false, fictitious, or fraudulent statements as to any matter within its jurisdiction.

REPORTING BURDEN

Respondents are not required to file or reply to any Federal collection of information unless it has a valid OMB control number. Public reporting burden for this collection of information is estimated to average four hours per response. This includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information including suggestions for reducing this burden to: Energy Information Administration, Survey Development and Statistical Integration, EI-21, 1000 Independence Avenue, S.W., Washington, D.C. 20585; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.

CONFIDENTIALITY OF INFORMATION

The information reported on this form will be protected and not disclosed to the public to the extent that it satisfies the criteria for exemption under the Freedom of Information Act (FOIA), 5 U.S.C. §552, the Department of Energy regulations, 10 C.F.R. §1004.11, implementing the FOIA, and the Trade Secrets Act, 18 U.S.C. §1905.

The Federal Energy Administration Act requires the EIA to provide company-specific data to other Federal agencies when requested for official use. The information reported on this form may also be made available, upon request, to another component of the Department of Energy (DOE); to any Committee of Congress, the Government Accountability Office, or other Federal agencies authorized by law to receive such information. A court of competent jurisdiction may obtain this information in response to an order. The information may be used for any nonstatistical purposes such as administrative, regulatory, law enforcement, or adjudicatory purposes.

Disclosure limitation procedures are applied to the statistical data published from EIA-886 survey regarding alternative fuel vehicles "planned to be made available in the following calendar year." This ensures that the risk of disclosure of identifiable information is very small.

For all other data published from the Form EIA-886, disclosure limitation procedures are not applied. Thus, there may be some statistics that are based on data from fewer than three respondents, or that are dominated by data from one or two large respondents. In these cases, it may be possible for a knowledgeable person to estimate the information reported by a specific respondent.