

Guidance for Federal Agencies on EPA Act 2005 Section 701

Alternative Fuel Use Requirements
for Dual-Fueled Vehicles

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List of Acronyms and Abbreviations

AFDC	Alternative Fuels Data Center
AFV	alternative fuel vehicle
DLA	Defense Logistics Agency
DOE	U.S. Department of Energy
E85 FFV	ethanol flex-fuel vehicle
EPAct 1992	Energy Policy Act of 1992
EPAct 2005	Energy Policy Act of 2005
EVEF	electric vehicle efficiency factor
FAST	Federal Automotive Statistical Tool
FEMP	Federal Energy Management Program
FleetDASH	Fleet Sustainability Dashboard
FY	fiscal year
GGE	gasoline gallon equivalent
GOCO	government-owned, contractor-operated
GSA	U.S. General Services Administration
H2	hydrogen
LPGV	liquefied petroleum gas vehicle
NGV	natural gas vehicle
NREL	National Renewable Energy Laboratory
PHEV	plug-in hybrid electric vehicle
USPS	United States Postal Service

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1 Introduction

Section 701 of the Energy Policy Act of 2005 (EPACT 2005) requires Federal agencies to use alternative fuel in dual-fueled vehicles when it is reasonably available and not unreasonably more expensive than gasoline (42 U.S.C. § 6374(a)(3)(E)). Since 2007, Federal agencies have requested waivers for vehicles from the Section 701 requirements as part of a June data call for the subsequent fiscal year (FY). The U.S. Department of Energy (DOE) Federal Energy Management Program (FEMP) has reviewed those waiver requests and granted or denied them prior to the subsequent FY. At the end of each FY, DOE FEMP has reviewed each Federal agency's covered alternative fuel use to determine compliance.

This guidance provides two different processes through which DOE will begin evaluating waiver requests for FY 2021 (beginning with the FY 2020 data call):

- **Automated reporting in the [Federal Fleet Sustainability Dashboard \(FleetDASH\)](#):** For vehicles with fueling transaction data in FleetDASH, agencies may note in their [Federal Automotive Statistical Tool \(FAST\)](#) submissions that they request waivers be processed through FleetDASH. In this case, fuel purchase transactions are automatically evaluated for proximity to alternative fuel, starting at the beginning of FY 2021. As described below, the new process combines and automates the waiver and compliance calculations for vehicles loaded into FleetDASH.
- **Waiver requests in FAST:** For individual vehicles not captured in FleetDASH, agencies may request waivers based on garage location in FAST. For these vehicles, agencies note in their end-of-year reporting (starting in October 2020) whether they believe dual-fueled vehicles should receive waivers from the alternative-fuel-use requirements (for FY 2021 and subsequent years) in lieu of a separate Section 701 data call.

1.1 Purpose

The purpose of this change in the Section 701 of EPACT 2005 reporting process is to streamline reporting and compliance requirements while encouraging improved Federal fleet performance. This document explains the requirements of Section 701 of EPACT 2005, how Federal agencies can request waivers, the grounds by which DOE will approve or deny waivers, and how DOE assesses compliance. It also describes information that DOE requires from Federal agencies applying for waivers.

1.2 Statutory Basis

Section 701 of EPACT 2005 requires Federal agencies to use alternative fuel in dual-fueled vehicles when it is reasonably available and not unreasonably more expensive than gasoline. Specifically, Section 701 (42 U.S.C. 6374(a)(3)(E)) reads as follows:

(i) [Dual fueled vehicles](#) acquired pursuant to this section shall be operated on alternative fuels unless the [Secretary](#) determines that an agency qualifies for a waiver of such requirement for vehicles operated by the agency in a particular geographic area in which—

(I) the [alternative fuel](#) otherwise required to be used in the vehicle is not reasonably available to retail purchasers of the fuel, as certified to the Secretary by the head of the agency; or

(II) the cost of the alternative fuel otherwise required to be used in the vehicle is unreasonably more expensive compared to gasoline, as certified to the Secretary by the head of the agency.

(ii) The Secretary shall monitor compliance with this subparagraph by all such fleets and shall report annually to Congress on the extent to which the requirements of this subparagraph are being achieved. The report shall include information on annual reductions achieved from the use of petroleum-based fuels and the problems, if any, encountered in acquiring alternative fuels.

A dual fueled vehicle is defined as “a dual fueled automobile, as such term is defined in section 32901(a)([9]) of title 49” or “a motor vehicle, other than an automobile, that is capable of operating on alternative fuel and is capable of operating on gasoline or diesel fuel.” 42 U.S.C. § 6374(g)(5). This includes ethanol flex-fuel vehicles (E85 FFVs), bi-fuel liquefied petroleum gas vehicles (LPGVs), bi-fuel natural gas vehicles (NGVs), and plug-in hybrid electric vehicles (PHEVs). DOE does not consider diesel vehicles capable of operating on biodiesel, including renewable diesel (designated as B20, B100, or R100), to be dual-fueled vehicles for Section 701 compliance purposes nor alternative fuel vehicles (AFVs) for the Energy Policy Act of 1992 (EPACT 1992) AFV acquisition requirements. Instead, biodiesel fuel use in Federal fleets is assessed separately as bonus credit for EPACT 1992 AFV acquisitions. *See* 42 U.S.C. §§ 13212(b)(1)(D) and 13220. Appendix A lists all dual-fueled vehicle fuel configurations that agencies can report in FAST during FY 2018 annual reporting.

1.3 Applicability

In order to ensure consistency among other requirements for Federal fleet vehicles, DOE has interpreted Section 701 of EPACT 2005 to apply to all Federal agencies with one or more fleets that are considered covered by EPACT 1992 (42 U.S.C. 13212(b)(3)). This includes any Federal executive department, military department, government corporation, independent establishment, executive agency, the United States Postal Service (USPS), Congress, the courts of the United States, or the Executive Office of the President with at least one covered fleet. A list of the 31 Federal agencies covered by EPACT 1992 and EPACT 2005 (as of FY 2019) is included in Appendix B of this guidance.

All dual-fueled vehicles in covered Federal agencies are subject to this requirement except those specifically exempted (see Appendix C). This includes light-duty vehicles, medium-duty vehicles, and heavy-duty vehicles, regardless of whether they are agency-owned, commercially leased, or leased from U.S. General Services Administration (GSA). Additionally, government-owned, contractor-operated (GOCO) vehicles are subject to these requirements, consistent with existing reporting requirements in FAST (DOE, 2014. *Executive Order 13514 Federal Leadership in Environmental, Energy, and Economic Performance: Comprehensive Federal Fleet Management Handbook*).

Contractor Vehicles

Agencies must ensure that all GOCO vehicles authorized for contractor use under FMR §102-34.215 comply with the AFV requirements. Each agency shall ensure contracts entered into for contractor operation of government-owned facilities or vehicles require the contractor to comply with the AFV acquisition requirements with respect to such facilities or vehicles to the same extent as the agency would be required to comply if the agency operated the facilities or vehicles.

1.4 Access to Alternative Fuel

Fleets can use the Alternative Fuels Data Center (AFDC) Station Locator to find fuel in their area or along a route that they are traveling by visiting <https://www.afdc.energy.gov/stations/#/find/nearest>. The Station Locator can be filtered to include specific fuels, private stations by owner type, and payment types accepted. Select “Advanced Filters,” filter the details appropriately, and click “Map Results” to view the data in the tool or “Download Results” to view the results in a .csv file format that can be opened in Excel as shown in Figure 1.

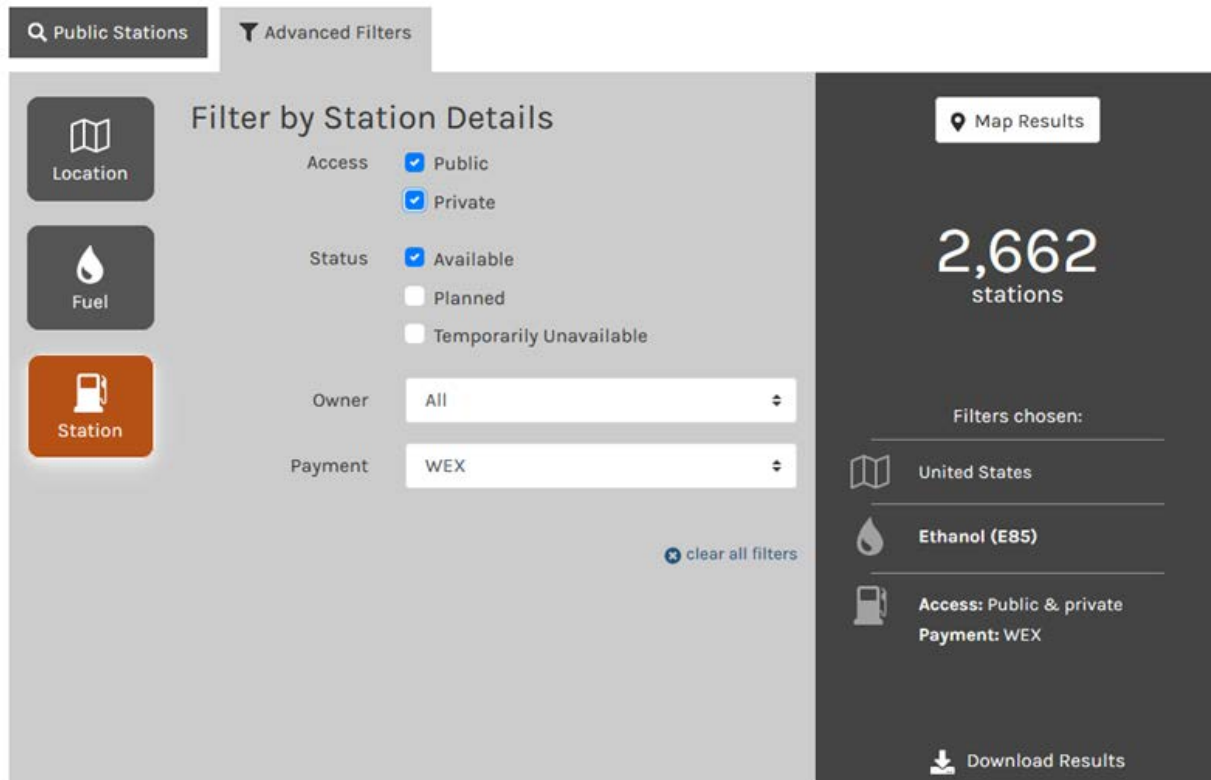


Figure 1. Advanced filter in AFDC Station Locator

If no fuel is available publicly or through sharing infrastructure with another governmental or private entity, agencies can contact the Defense Logistics Agency (DLA) Energy Division. DLA Energy assists military and civilian agencies in contracting for alternative fuel in many fleet locations in the United States. DLA Energy contracts include standards to ensure the quality of the delivered fuel. Through its large purchase volume, DLA Energy is typically able to provide these fuels to agencies at a reasonable cost. If no alternative fuel is available and DLA Energy cannot service an area, agencies should consider installing alternative fuel infrastructure or acquiring low-greenhouse gas emitting vehicles.

2 Assessing Compliance

Beginning with the FY 2020 FAST data call, DOE is introducing a new process to determine compliance with Section 701 requirements for alternative fueling behavior in FY 2021 and subsequent years. This process will use FleetDASH to measure the availability of alternative fuel each time that the vehicle is fueled rather than annual waivers based upon the garage location of the vehicle. This process relies on fuel purchase transactions and does not require any additional input from agencies. Since vehicles can operate well beyond the immediate vicinity of their reported garage location, the transaction location provides a much more accurate measure of whether alternative fuel is “reasonably available” in the geographic area in which the vehicle is operated. Therefore, this is the preferred method to assess compliance with Section 701.

To request waivers through FleetDASH, agencies designate vehicles during their annual FAST report with the Section 701 waiver attribute, “FleetDASH.” If vehicles are not present in FleetDASH, the waiver system functions similarly to the compliance system in place prior to FY 2020, with adjustments described in Subsection 2.2 that eliminate the mid-summer Section 701 reporting requirement. DOE reports overall agency compliance on a blended basis using the best data available from FleetDASH and FAST, as described in Subsection 2.3.

2.1 Automating Vehicle Waivers and Compliance in FleetDASH

DOE uses FleetDASH to assess compliance on the fuel transaction level. If a dual-fueled vehicle is operating in an area where alternative fuel is available at a reasonable cost, the vehicle must use the alternative fuel instead of gasoline or diesel.

FleetDASH compares the location of fueling transactions for dual-fueled vehicles with alternative fuel stations listed in the AFDC Station Locator, as shown in Figure 2. The Station Locator includes public stations as well as private stations owned by Federal agencies, local governments, and private companies. FleetDASH can designate those stations as available or unavailable to a given agency or to the Federal government more generally. Users can flag stations as available or unavailable in order to improve the accuracy of this designation. In addition, users can flag stations in FleetDASH as unreasonably more expensive than gasoline for 2-month periods as described below.

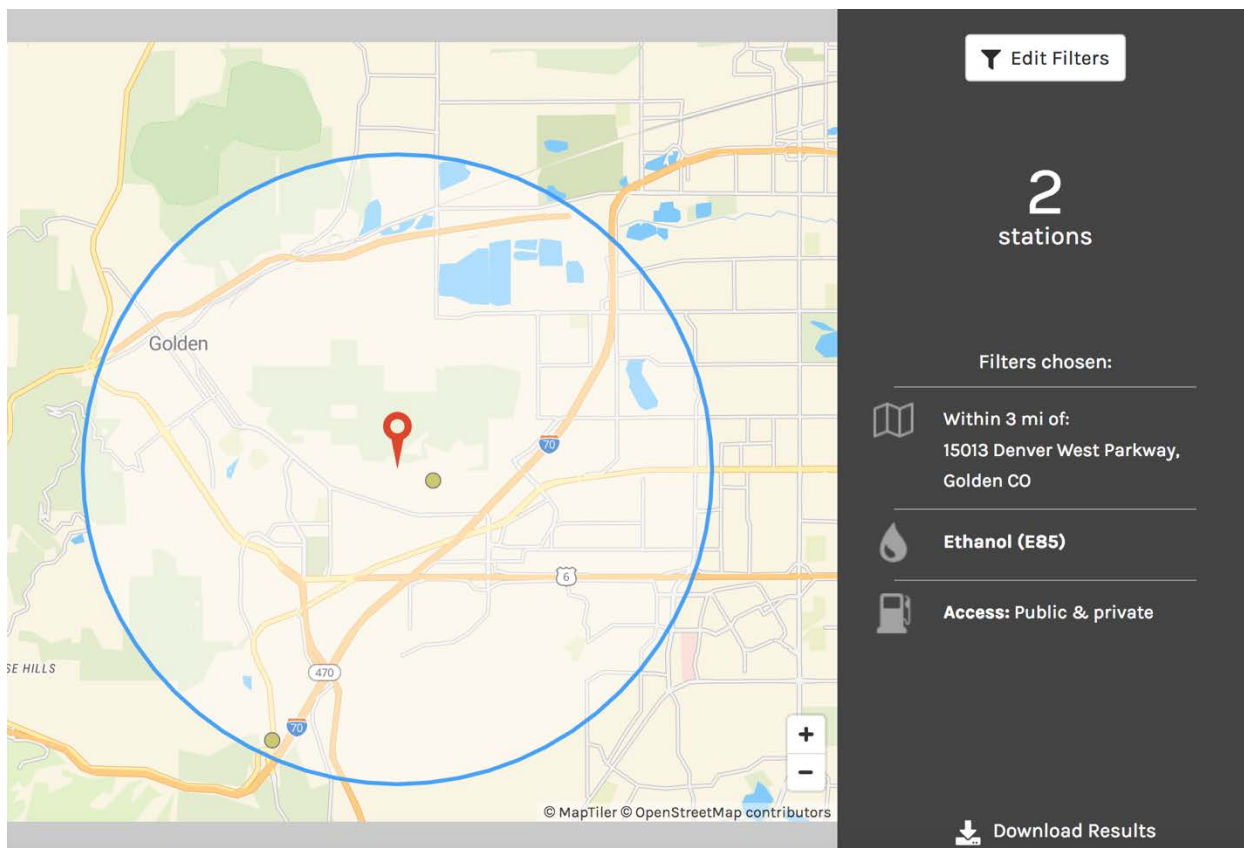


Figure 2. FleetDASH comparison of fueling transaction and nearby alternative fuel stations

The compliance assessment in FleetDASH waives a fueling transaction from the requirement to use alternative fuel if the transaction does not occur **within 3 miles of an available alternative fuel station**. Distance is measured as a straight line between the actual fueling transaction and the alternative fuel station (i.e., as the crow flies). Driving time is not considered. Stations will be designated as **unavailable** in any of the three following situations:

- **The station does not allow access to a particular agency or agencies or to the Federal government more generally.** FleetDASH users may flag a particular station as inaccessible. After the user notes an issue accessing a particular station, DOE confirms whether the station owner does not support fueling Federal vehicles at all or only supports fueling of vehicles for certain agencies or fleets. Users may send supporting documentation including images to the NREL Federal Fleet Project Leader at

federal.fleets@nrel.gov. If the station does not sell fuel to any Federal vehicles, then that station is considered unavailable to all agencies. If the station owner clarifies that the station is available to some agencies but not others, it is considered available only to those agencies. For an example of the latter situation, a co-located U.S. Army and U.S. Air Force base may have a station that dispenses fuel to both agencies on base or to all U.S. Department of Defense agencies, but the fuel might not be available to civilian agencies.

- **The station does not accept the fueling card used by an agency.** Stations that do not accept the fueling card used by an agency will be designated as unavailable to that agency. For example, if USPS uses only the Voyager credit card and a given station does not accept Voyager, that station will be designated as unavailable to USPS.
- **Unreasonably expensive fueling stations** can be flagged in FleetDASH as **temporarily unavailable**. FleetDASH users can flag a single transaction at a station if the alternative fuel costs are unreasonably expensive. DOE classifies unreasonable expense based on how the fuel is marketed so that drivers can make purchase decisions based on posted prices.
 - **Liquid fuels (E85, LPG, and LNG)** are commonly sold by the gallon. Led by E85, liquid fuels comprised 100% of price-based waiver requests and 99% of all waiver requests overall in FY 2019. E85, LPG, and LNG are considered unreasonably expensive if the fuel costs more on a per-gallon basis than gasoline because they have less energy than gasoline on a per gallon basis. If the alternative fuel costs more on a per-gallon basis than gasoline in addition to having less energy than gasoline, then it is be considered unreasonably expensive. Given the relative ease for fleets to rely on posted per-gallon prices, DOE relies on per-gallon costs to define whether a cost is reasonable for liquid fuels.
 - **CNG is a gaseous fuel** often sold in units of GGEs and since 2000 has consistently been less expensive than gasoline on a GGE basis. Therefore, DOE determines the price reasonableness of CNG based on whether the fuel is less expensive than gasoline on a GGE basis.
 - **Electricity** is generally sold by the kilowatt-hour, and vehicles driven by electric motors use energy much more efficiently than vehicles driven by internal combustion engines. Therefore, when comparing a PHEV's quantity of electricity used to the PHEV's quantity of petroleum used, the electricity use—measured in GGEs—is multiplied by the EV efficiency factor (EVEF). See Appendix D for the EVEF. The EVEF allows the comparison of fuel quantities to more accurately reflect the percentage of miles a PHEV has driven on electricity. Accounting for the EVEF, electricity is consistently less expensive than gasoline. Furthermore, because PHEVs are assumed to be charged at the garage location, there is no requirement to check for available electricity infrastructure near the transaction location. All covered PHEVs are considered non-waivered dual-fueled vehicles for Section 701 compliance. DOE uses the following formula to calculate Section 701 compliance for PHEVs:

$$\frac{EVEF \times \text{total electricity use by covered PHEVs}}{\text{total petroleum use by covered PHEVs} + EVEF \times \text{total electricity use by covered PHEVs}}$$

DOE verifies the accuracy of unreasonably expensive flags by contacting the station owner. If the price is confirmed as unreasonably expensive, DOE considers that station to be unavailable for all Federal fleet vehicles for 2 months. During the month that the high fuel cost is noted and the following month, that high-cost station is excluded from compliance for the entire Federal government (i.e., no Federal vehicles are required to fuel there).

Compliance for FleetDASH vehicles is measured on an annual basis at the fleet and agency levels. Compliance is calculated by dividing the amount of alternative fuel used in covered dual-fueled vehicles by the total quantity of fuel consumed by those vehicles within 3 miles of available alternative fuel stations. Below is the formula for assessing compliance for dual-fueled vehicles in FleetDASH except for PHEVs:

$$\frac{\text{FleetDASH alternative fuel use by covered dual-fueled vehicles}}{\text{FleetDASH fuel use by covered dual-fueled vehicles within 3 miles of available alternative fuel}}$$

Agencies can view performance in FleetDASH over any month in the past year at the vehicle level for the percentage of time that drivers used alternative fuel in that vehicle when it was available within 3 miles. They can then use that information to alter driver behavior and increase refueling with alternative fuel. If electricity charging is not captured for a particular PHEV in FleetDASH, the dashboard will note that performance cannot be calculated for that vehicle; DOE completes the annual compliance calculations for such vehicles using electricity consumption reported in FAST.

2.2 Determining 701 Compliance in FAST for Vehicles Not Present in FleetDASH

Agencies are encouraged to include their vehicles in FleetDASH for Section 701 compliance when possible. FleetDASH automates the waiver process and applies station accessibility and unreasonable cost flags across the entire Federal government—which can save agencies significant amounts of time—and it more accurately measures where vehicles are operating for the determination of compliance by using fuel transaction locations instead of garage locations. Nevertheless, DOE FEMP continues to support Section 701 waivers and compliance determinations in FAST for the remaining vehicles not included in FleetDASH.

If part or all of an agency’s fleet is not present in FleetDASH, then DOE follows a process using FAST data submissions. During the annual fleet FAST data call, an agency may request waivers based on a lack of available (and not unreasonably expensive) alternative fuel stations near their vehicle garage locations for the coming fiscal year.

DOE reviews those requests and determines whether fuel is reasonably available or unreasonably more expensive than gasoline and assigns a waiver status to each vehicle (i.e., “Waiver Granted”, “No Waiver”, “Exempt”). At the end of the fiscal year, DOE assesses Section 701 compliance by calculating the percentage of alternative fuel out of total fuel use in non-waivered dual-fueled vehicles. **Agencies can only request waivers in FAST for vehicles with fueling transactions not captured in FleetDASH.** FleetDASH is more accurate and less time-intensive on the agency’s part. Generally, waivers are requested at the end of 1 year for the coming year (e.g., 2021 waivers are requested through the 2020 data call). For vehicles reported at the end of the fiscal year without waiver requests from the prior year’s report (such as new vehicle acquisitions), DOE applies the prospective year waiver status to the prior year. For example, if an agency acquires a new vehicle in FY 2021, the fleet manager would not have reported the vehicle in FY 2020 and therefore not have requested a waiver for FY 2021. In this example, when the agency reports the vehicle at the end of 2021 with the appropriate waiver request status, DOE determines whether a waiver for that vehicle is merited at that time and applies that waiver status to the vehicle request as the FY 2021 waiver status for that vehicle as well.

For agencies to qualify for full-year waivers, they must show that fuel is not reasonably available within **3 miles from the relevant vehicle’s garage location**. Driving time is not assessed.

Before submitting waiver requests in FAST, agencies must identify what portion of their fleet is not present in FleetDASH. Agencies can confirm what segments of their fleet are present in FleetDASH with the NREL Federal Fleet Project Leader at federal.fleets@nrel.gov. If fleet vehicles are not in FleetDASH, agencies can work with NREL to add these vehicles to FleetDASH which will streamline 701 reporting in future years and improve identification of missed fueling opportunities.

Then, agencies should identify single-fuel vehicles or those designated as foreign, law enforcement, emergency/emergency response, or any other exemption status listed in Appendix C. These vehicles are exempt from Section 701 requirements and may be marked “Exempt”.

For the remaining vehicles, agencies should use the AFDC Station Locator to determine the availability of the appropriate alternative fuel or contact DLA, as described in Subsection 1.4. If no fuel is available for purchase within 3 miles of the vehicle garage location or if the fuel is consistently too expensive, fleet managers should submit waiver requests in FAST. For leased vehicles, GSA Fleet provides an annual list of dual-fuel vehicles that may qualify for waivers based on their reported garage location. Please reach out to GSA Fleet’s Alternative Fuel Vehicle Team for more information (gsafleetafvteam@gsa.gov).

2.2.1 Submitting Waiver Requests in FAST

To streamline reporting for Federal fleet managers, DOE has aligned the remaining Section 701 waiver request/review process with year-end Federal fleet reporting of asset-level data in FAST. Each vehicle must be reported with an attribute identifying how the agency believes the vehicle should be treated with respect to Section 701. Beginning with the FY 2020 data call, FAST will support designations for the following:

- **FleetDASH:** Vehicle is present in FleetDASH and the agency selects FleetDASH as the sole basis for determining the waiver standing of the vehicle with respect to Section 701, as well as the vehicle's compliance to the extent applicable with that requirement.
- **Exempt:** Vehicle is not subject to Section 701 requirements based on any combination of
 - The owning/operating agency's designation as EPAct-exempt (see Appendix B)
 - The vehicle being located in an area considered foreign for FAST reporting
 - The vehicle's fuel type/configuration not being subject to Section 701's alternative fuel consumption requirement (i.e., it is not a dual-fueled vehicle)
 - The vehicle's status as exempt (see Appendix C)
- **No Waiver:** Vehicle is subject to Section 701 requirements and does not require a waiver
- **Waiver Requested - Distance:** Alternative fuel is not available within a 3-mile radius of the garage location
- **Waiver Requested - No Access:** Nearby fuel station(s) does not provide access to agency drivers (additional documentation required)
- **Waiver Requested - Fuel Card:** Nearby fuel stations(s) does not accept fuel payments using agency fuel card
- **Waiver Requested - Cost:** Alternative fuel is unreasonably more expensive at nearby fuel station(s) than gasoline (additional documentation required).

The designations “Exempt,” “No Waiver,” and the “Waiver Requested” variations should only be used by agencies for vehicles not tracked in FleetDASH. DOE may analyze non-exempt vehicles that are present in the FleetDASH data set using FleetDASH even if miscategorized by agencies.

Waivers based on distance or driving time may not be requested for covered vehicles designated as “location withheld” in FAST. FAST will validate that each vehicle's Section 701 designation is consistent with the vehicle's other reported attributes (e.g., foreign vehicles and vehicles in non-EPAct-covered agencies cannot be designated as “No Waiver” or with one of the “Waiver Requested” variations).

For vehicles reported to FAST without the corresponding Section 701 designation (i.e., the designation is omitted), FAST provides a default value based on other reported vehicle attributes.

- Any such vehicles in non-EPA-act-covered agencies, foreign vehicles, law enforcement vehicles, emergency response vehicles, and vehicles with fuel type/configurations not subject to Section 701 will be treated as if they were reported with the “Exempt” designation described above.
- All other such vehicles are treated as if they are reported with the “No Waiver” designation described above.

Agency fleet managers should review the relevant entries in the FAST data element and business rules reference documents for additional details on the reporting and validation of this vehicle attribute.

Agency fleet managers may review waiver determinations from the prior year in FAST prior to submitting waiver requests for the coming year. This information can be used to inform waiver requests for the coming year, although availability and costs of alternative fueling stations may change.

In all cases where additional documentation is required, that documentation should be emailed to the DOE Federal Fleet Program Manager at federal_fleets@ee.doe.gov and the NREL Federal Fleet Project Leader at federal.fleets@nrel.gov. **All documentation must list the vehicle identifiers used in FAST in order to correlate the documentation to the waiver request.** Documentation may include images and should include the following information as well:

- **Denied access** documentation should include the email exchange with the station owner denying access or the phone number and name for the station owner if the conversation took place by phone.
- **Unreasonable expense** documentation should include the fuel price for gasoline and the fuel price per gallon for the alternative fuel on a weekly basis over 5 consecutive weeks in the preceding year. DOE uses the same criteria for determining unreasonable expense in FAST as FleetDASH for the various fuels as described in Subsection 2.1.

2.2.2 Waiver Determinations in FAST

DOE imports waiver determinations into FAST and notifies agencies as quickly as possible following agency data submissions. DOE may designate Section 701 waiver requests as granted (“Waiver Granted”), denied (“No Waiver”), exempt from the requirements on other grounds such as law enforcement or emergency response (“Exempt”), or FleetDASH-covered (“FleetDASH”) in FAST. Waiver requests for vehicles in FleetDASH are automatically reviewed in FleetDASH and not in FAST. DOE grants waivers if any of the waiver reasons described in Subsection 2.2.1 are confirmed as accurate. If documentation is required but not provided, waivers are denied automatically.

Agencies may appeal DOE waiver decisions within 30 days of notification. Appeals listing the vehicle identifier used in FAST and accompanying documentation should be emailed to the DOE Federal Fleet Program Manager at federal_fleets@ee.doe.gov and the NREL Federal Fleet Project Leader at federal.fleets@nrel.gov.

2.2.3 Assessing Overall Compliance in FAST

After each FY ends, DOE assesses Section 701 compliance for vehicles in FAST. Vehicles that do not receive a waiver in FAST (and which are not captured in FleetDASH) are designated as having reasonable access to alternative fuel 100% of the time. DOE assesses Section 701 compliance using the percentage of alternative fuel compared to total fuel use in non-waivered dual-fueled vehicles (calculated by dividing the amount of alternative fuel used in covered dual-fueled vehicles by the total amount of fuel consumed in covered, non-waivered dual-fueled vehicles). This gives agencies bonus credit for fuel used by waived dual-fueled

vehicles that still use alternative fuel where available. Below is the formula for assessing compliance for dual-fueled vehicles found only in FAST except for PHEVs:

$$\frac{\text{FAST-only alternative fuel use by covered dual-fueled vehicles}}{\text{FAST-only fuel use by covered, non-waivered dual-fueled vehicles}}$$

Similarly to FleetDASH, FAST compliance determinations are made using GGEs for all vehicles except that PHEV electricity use is multiplied by the EVEF described in Subsection 2.1.

$$\frac{\text{EVEF} \times \text{total electricity use by all PHEVs}}{\text{total petroleum use by covered PHEVs} + \text{EVEF} \times \text{total electricity use by covered PHEVs}}$$

2.3 Determining Agency-Wide Compliance

Because an agency may have some vehicles in FleetDASH and others in FAST, DOE combines the results from both systems into a single compliance percentage for each agency. DOE divides the number of GGEs used in dual-fueled vehicles by the total applicable fuel consumption, which is the number of GGEs consumed by covered, dual-fueled vehicles in non-waivered transactions (i.e., transactions within 3 miles of available fuel for vehicles in FleetDASH and all transactions for non-waivered vehicles found only in FAST). In both FAST and FleetDASH, electricity consumption in PHEVs includes the EVEF, as described in Subsection 2.1, to account for electric motor efficiency.

$$\begin{aligned} \text{Annual agency-wide compliance percentage} = & \\ & \left(\frac{\text{EVEF} \times \text{total electricity use by covered PHEVs}}{\text{total petroleum use by covered PHEVs} + \text{EVEF} \times \text{total electricity use by covered PHEVs}} \right) \\ & \times (\text{PHEV fuel consumption \% of applicable fuel consumption}^1) \\ & + \\ & \left(\frac{\text{FleetDASH alternative fuel use by other}^2 \text{ covered dual-fueled vehicles}}{\text{FleetDASH fuel use by other covered dual-fueled vehicles within 3 miles of available alternative fuel}} \right) \\ & \times (\text{FleetDASH other dual-fueled vehicle fuel consumption \% of applicable fuel consumption}) \\ & + \\ & \left(\frac{\text{FAST-only alternative fuel use by other covered dual-fueled vehicles}}{\text{FAST-only fuel use by other covered, non-waivered dual-fueled vehicles}} \right) \\ & \times (\text{FAST only other dual-fueled vehicle fuel consumption \% of applicable fuel consumption}) \end{aligned}$$

¹ Applicable fuel consumption is the non-waivered fuel consumed by covered, dual-fueled vehicles.

² Other represents all non-PHEV dual-fueled vehicles.

Appendix A: Dual-Fueled Vehicle Fuel Configurations

Vehicle Fuel Type
Compressed natural gas bi-fuel vehicle
Ethanol (E85) flex-fuel vehicle
Plug-in hybrid electric vehicle
Liquefied natural gas bi-fuel vehicle
Liquefied petroleum gas (propane) bi-fuel vehicle

Appendix B: Agencies with EPACK-Covered Fleets

Agency Name
Court Services and Offender Supervision
Defense Agencies
General Services Administration
National Aeronautics and Space Administration
National Science Foundation
Nuclear Regulatory Commission
Office of Personnel Management
Smithsonian Institution
Social Security Administration
Tennessee Valley Authority
U.S. Army Corps of Engineers
U.S. Department of Agriculture
U.S. Department of Air Force
U.S. Department of Army
U.S. Department of Commerce
U.S. Department of Education
U.S. Department of Energy
U.S. Department of Health and Human Services
U.S. Department of Homeland Security
U.S. Department of Housing and Urban Development
U.S. Department of the Interior
U.S. Department of Justice
U.S. Department of Labor
U.S. Department of Navy
U.S. Department of State
U.S. Department of Transportation
U.S. Department of Treasury
U.S. Department of Veterans Affairs

U.S. Environmental Protection Agency
U.S. Marine Corps
U.S. Postal Service

Appendix C: Exempt Vehicles

Vehicle Type
Law enforcement vehicles
Emergency response vehicles
Military tactical vehicles—Motor vehicles (excluding general-purpose motor vehicles) designed to military specification, or a commercially designed motor vehicle modified to military specification to meet direct transportation support of combat or tactical operations and protection of nuclear weapons. These vehicles are inherently mission critical and are used for no other purpose.
Nonroad vehicles—Vehicles that are not licensed for use on all roads and highways
Motor vehicles used for motor vehicle manufacturer product evaluations or tests
Vehicles owned and operated by the Central Intelligence Agency (CIA)
Federally owned vehicles operated solely by Indian nations or state-run Fish and Wildlife services, as applicable
Vehicles operated outside of the United States

Appendix D: Electric Vehicle Efficiency Factor

Electric Vehicle Efficiency Factor

2.75^a

^a The EVEF is determined by standards developed in the GREET Model (<https://greet.es.anl.gov/afleet>) and is subject to future updates. Updates to the EVEF will be posted on FAST FAQ: Fuel Conversion Factors (<https://fastweb.inl.gov/help/index.cfm/faqs/faq-fuel-conversion-factors>).

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