

State & Alternative Fuel Provider Fleets: Fleet Compliance Annual Report Model Year 2022, Fiscal Year 2023



Photo from Getty Images, 480652712

What Is EPAAct?

The Energy Policy Act of 1992 (EPAAct) was enacted in part to reduce the nation's dependence on imported petroleum. Provisions of EPAAct require certain fleets to acquire alternative fuel vehicles. The U.S. Department of Energy administers these requirements through its State and Alternative Fuel Provider Fleet Program, Federal Fleet Requirements, and Alternative Fuel Designation Authority.

The U.S. Department of Energy (DOE) regulates covered state government and alternative fuel provider fleets, pursuant to the Energy Policy Act of 1992 (EPAAct), as amended.

For model year (MY) 2022, the compliance rate for the more than 306 reporting fleets in the State and Alternative Fuel Provider Fleet Program was 100%.¹ Fleets used either Standard Compliance or Alternative Compliance reporting methods.

Fleet Compliance at a Glance

More than 300 fleets used Standard Compliance and exceeded their aggregate MY 2022 acquisition requirements by 20% through acquisitions of creditable vehicles, biodiesel, infrastructure, and non-road equipment. The six covered fleets that used Alternative Compliance exceeded their aggregate MY 2022 petroleum use reduction requirements by 40%.

Overall, covered fleets reported use of more than 12.5 million gallons of pure biodiesel (B100), an increase from MY 2021 in total biodiesel fuel use reported. The number of reported light-duty alternative fuel vehicles (AFVs) acquired increased from MY 2021,² as did the number of vehicles that earned partial credit. MY 2022 marked the ninth year that fleets complying via Standard Compliance could earn credits for the acquisition of certain non-AFV electric-drive vehicles, as well as investments in alternative fuel non-road equipment, alternative fuel infrastructure, and emerging technologies. The data for MY 2022 suggest a steady presence of EPAAct-covered state and alternative fuel provider fleets in the AFV, alternative fuel, and advanced technology vehicle markets.

Standard Compliance Results

Covered state and alternative fuel provider fleets operating under Standard Compliance (10 CFR Part 490, Subpart C or D) achieved compliance by acquiring AFVs and creditable non-AFV electric-drive vehicles; purchasing biodiesel for use in medium- or heavy-duty (MD/HD) vehicles; investing in alternative fuel infrastructure, non-road equipment, and emerging technology; and/or applying banked credits earned previously or acquired from other covered fleets.

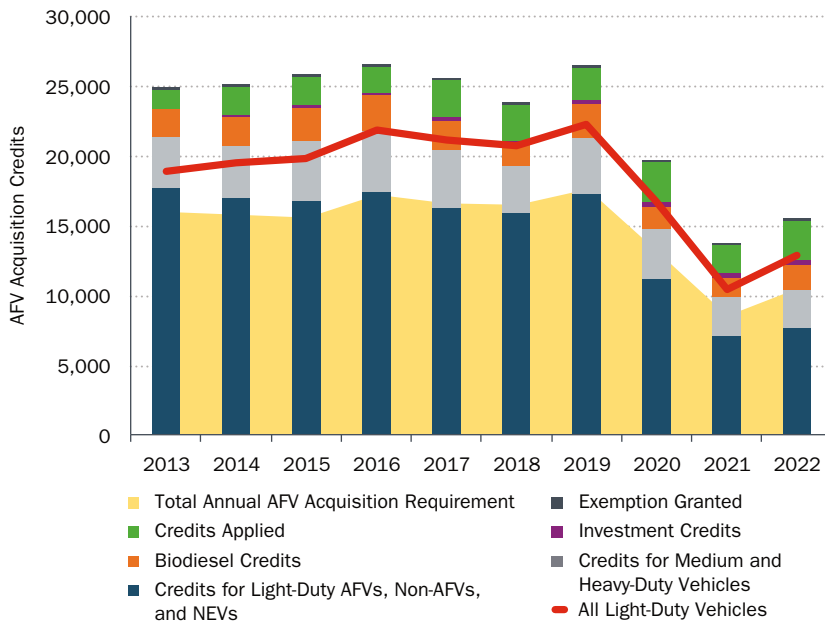
In MY 2022, fleets that used Standard Compliance:

- Acquired 9,077 creditable light-duty and neighborhood electric vehicles (NEVs).
- Earned 1,162 credits for the acquisition of 2,501 partial credit vehicles, including creditable non-AFVs (i.e., light-duty hybrid electric vehicles [HEVs], certain plug-in hybrid electric vehicles [PHEVs], MD/HD hybrid electric vehicles, and NEVs).
- Earned 1,893 biodiesel fuel use credits by purchasing more than 12.5 million gallons of B100.³

¹ Some reporting entities represent one agency or business; others represent the fleet operations of multiple entities (e.g., a state or company that reports on behalf of all of its covered state agencies or subsidiaries). The total number of fleets whose information is submitted in annual reports is estimated to be roughly 2,000.

² AFVs include any dedicated or dual-fueled vehicles (i.e., any vehicle that operates solely on, or is capable of operating on, at least one alternative fuel). The following fuels are defined or designated as alternative fuels: methanol, denatured ethanol, and other alcohols; blends of 85% or more of alcohol with gasoline; natural gas and liquid fuels domestically produced from natural gas; liquefied petroleum gas (propane); coal-derived liquid fuels; hydrogen; electricity; fuels (other than alcohol) derived from biological materials (including B100); and three P-series fuels.

Standard Compliance Methods



- Earned 359 credits for investments of \$47.57 million in alternative fuel infrastructure, non-road equipment, and emerging technology vehicles.
- Applied 2,872 banked credits.

In addition, these state and alternative fuel provider fleets earned a total of 5,182 bankable AFV credits.

As a whole, the fleets operating under Standard Compliance went beyond compliance, exceeding their AFV acquisition requirements (10,440) by approximately 20%.

Vehicle Acquisitions

Acquiring AFVs is typically how covered fleets comply with EAct. Under Standard Compliance, 75% of the non-excluded light-duty vehicles (LDVs) that state fleets acquire must be AFVs, while 90% of the non-excluded LDVs that alternative fuel provider fleets acquire must be AFVs. AFV acquisition requirements are determined by multiplying a fleet's number of newly

acquired, non-excluded LDVs by the applicable percentages.

Changes to the program effective in MY 2014 allow covered fleets to earn full and partial AFV acquisition credits for the acquisition of some vehicles that are not AFVs or LDVs. Specifically, covered fleets can earn 0.5 credits for each light-duty HEV or PHEV they acquire that is not an AFV,⁴ and 0.25 credits per NEV. After requirements are met with light-duty AFV acquisitions, covered fleets may earn full credit for MD/HD AFVs and 0.5 credits for MD/HD HEVs. These additional creditable vehicle categories provide fleets with greater flexibility to meet their compliance requirements while fulfilling their vehicle mission needs.

In MY 2022, the number of creditable LDV and NEV acquisitions by covered fleets was 9,077—a 15% increase from MY 2021 (7,905). Acquisition of light-duty non-AFVs that earned less than a credit totaled 2,159 vehicles, with an additional 329 NEVs also earning partial credit. Finally, covered fleets acquired 2,578 creditable MD/HD vehicles.

Summary of Creditable Vehicles

	Vehicles
Light-duty AFVs	6,589
Light-duty HEVs and PHEVs	2,159
NEVs	329
TOTAL	9,077

MD/HD AFVs	2,565
MD/HD HEVs	13
TOTAL*	2,578

MY 2022 Acquisitions Total	11,655
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*Credits for MD/HD vehicles are banked for future use.

In total, fleets acquired 11,655 creditable vehicles of all size categories.

Flexible-fuel or dual fuel vehicles accounted for 71% of those acquired vehicles. All-electric vehicles made up nearly 7%, with the remainder including other forms of creditable alternative and non-alternative fuel vehicles.

While there was a slight increase in the acquisition of AFVs and creditable non-AFVs from 2021, AFV acquisition numbers remain lower than historical numbers. This may be due to decreased availability of certain AFV models and supply chain challenges. Furthermore, the total number of vehicles acquired each year by covered fleets has decreased in recent years. In 2021, the total number of LDVs acquired was the lowest value since 2010, resulting in a corresponding decrease in the annual AFV acquisition requirement. While 2022 numbers were slightly higher, lingering budget and supply chain problems could be contributing to the continued low acquisition numbers.

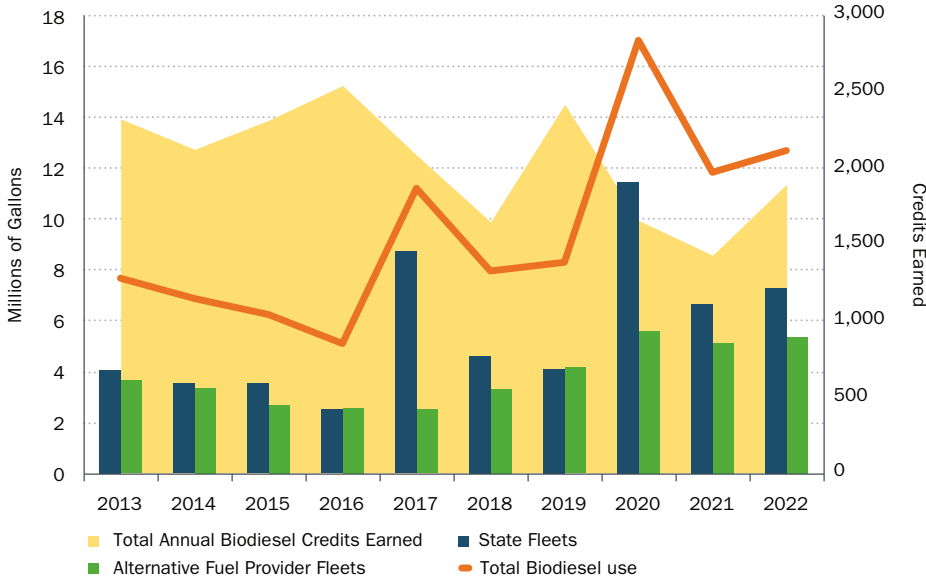
Biodiesel Fuel Use

Covered state and alternative fuel provider fleets complying under Standard

³ The credits awarded for biodiesel purchase and use do not necessarily reflect the total amount of biodiesel purchased. Each fleet may apply its biodiesel fuel use credits to meet no more than 50% of its annual AFV acquisition requirements, and so many fleets do not report the full amount of biodiesel they use.

⁴ To be considered an AFV, a vehicle must be dedicated or dual-fueled. Some PHEVs are considered AFVs and others are not, depending on whether the vehicle in question meets the "dual-fueled vehicle" definition.

Petroleum Reductions Achieved by Alternative Compliance Fleets
Annual Biodiesel (B100) Use and Biodiesel Credits Earned



Compliance may earn one biodiesel fuel use credit for every 450 gallons of B100 or 2,250 gallons of 20% biodiesel blends (B20) they purchase for use in MD/HD vehicles (10 CFR § 490.701–702).⁵ In MY 2022, covered fleets reported using more than 12.5 million gallons of B100 in B20 or higher blends, thus allowing these fleets to earn a total of 1,893 biodiesel fuel use credits. Some fleets are also using renewable diesel, which is counted as B100.

Credit Use and Acquisition

Covered fleets earn bankable credits by exceeding their compliance requirements in a given model year. Fleets may then use these credits to address future AFV acquisition requirements, or they may sell the credits to fleets that need additional credits to achieve compliance. In MY 2022, fleets exceeded their AFV acquisition requirements and earned 5,182 credits for future use. Fleets also used 2,872 banked credits to comply with EPAAct—the most credits that have been used in one reporting year to date, and almost 1,000 more than the number of credits applied in MY 2021 (1,997).

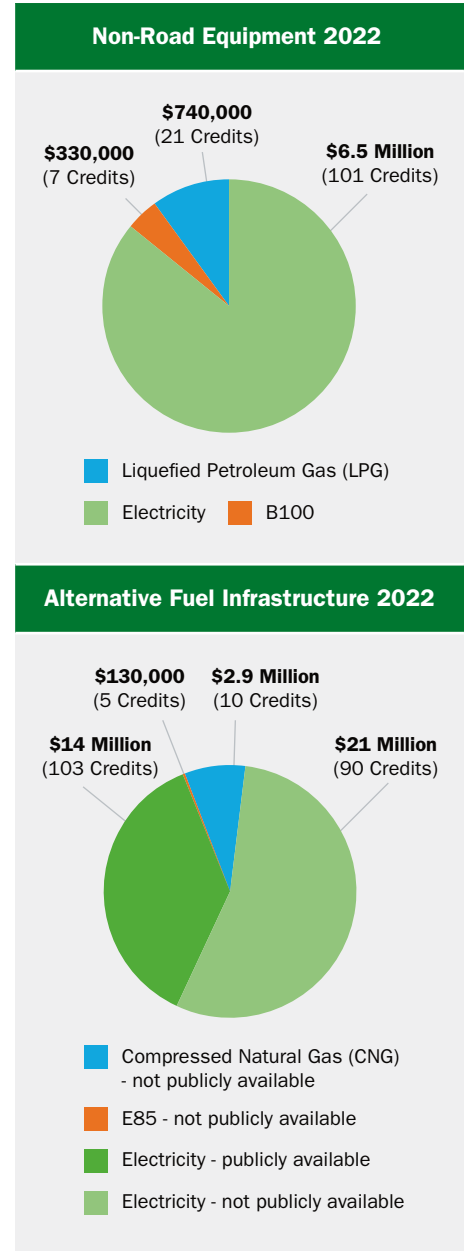
There were eight transactions between covered fleets involving the transfer of a total of 3,255 banked credits. There were more transactions in MY 2021 but significantly fewer credits exchanged (33).

Investments

Covered fleets may earn credits for investments in non-road equipment, alternative fuel infrastructure, and emerging technologies related to electric-drive vehicles.⁶ Generally, fleets will earn one credit for every \$25,000 invested. For the alternative fuel infrastructure category—i.e., investments in MY 2022 for which covered fleets reported amounts and sought credits—funds were spent for compressed natural gas, E85 (high-level ethanol-gasoline blends), and electricity infrastructure. The total spent on public and non-public infrastructure was just under \$37.24 million. Fleets earned 208 credits for these infrastructure investments. In MY 2022, covered fleets earned 129 credits for investments in alternative-fueled, non-road equipment, and 22 credits (\$2.75 million invested) for emerging technology vehicles.⁷

Exemptions

Overall, granted exemptions in MY 2022 represented 2% (total number of exemptions granted divided by total AFV acquisition requirements) of covered fleets' compliance credit activity.⁸ In MY 2022, state and alternative fuel provider fleets received a total of 174 vehicle exemptions—more than the 42 exemptions granted in MY 2021, but comparable to the average over the past 10 years.



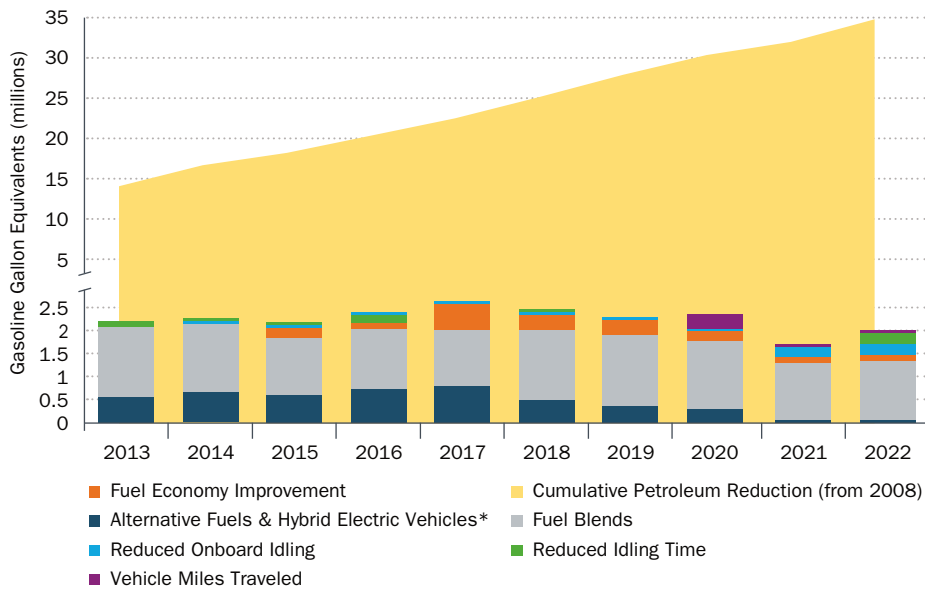
⁵ Learn more about calculating biodiesel fuel use credits at epact.energy.gov/pdfs/biodiesel_guidance.pdf.

⁶ Learn more about investments at epact.energy.gov/pdfs/investments.pdf.

⁷ Fleets also earned credits for pooling of infrastructure and non-road equipment investments that were individually less than \$25,000 but exceeded the threshold when aggregated. These pooled credits are not shown on the figure.

⁸ Exemptions are detailed on the EPAAct website: epact.energy.gov/exemptions.

Petroleum Reductions Achieved by Alternative Compliance Fleets



*Beginning in MY 2018, non-PHEVs are reported under Total Fuel Economy Improvements. PHEVs are reported in the Alternative Fuels & Hybrid Electric Vehicles category.

Only six fleets sought exemptions in MY 2022, a slight increase from MY 2021 but remaining on track with the lower number of fleets seeking exemption since MY 2008. MY 2007 was the peak year for fleets seeking exemptions, when 43 fleets requested exemptions.

From 2000 to 2008, the average yearly number of exemptions requested was more than 1,400, and the average number granted was more than 1,000. In contrast, the average yearly number of exemptions requested from 2013 to 2022 was about 191, with an average of 164 granted.

The decrease in number of exemption requests corresponded with an increased availability of AFV models. As opportunities to earn AFV acquisition credits under the program increase and availability of alternative fueling infrastructure grows across the United States, the number of exemption requests and granted requests is expected to remain a small portion of the overall program's compliance means.

Alternative Compliance Results

MY 2022 marked the 14th year that covered state and alternative fuel provider fleets could choose DOE's Alternative Compliance option in lieu of complying with EPCAct via Standard Compliance.

EPCAct 2005 established Alternative Compliance, and the option was put in place by DOE's final rulemaking in March 2007 for initial application in MY 2008. Under Alternative Compliance, fleets employ petroleum reduction measures in lieu of acquiring AFVs as they do under Standard Compliance. Examples of these petroleum reduction measures are included in the chart above. Fleets must obtain a waiver from DOE for the upcoming model year. To receive a waiver, fleets first must submit a notice of intent to apply for a waiver to DOE; they then must follow up by filing a complete waiver application that includes a plan showing how they intend to reduce their fleets' petroleum consumption.

DOE approved waiver applications for seven fleets to participate in Alternative Compliance for MY 2022. Two fleets merged, leaving six fleets reporting under Alternative Compliance. All six fleets were able to meet their required petroleum fuel use reductions for MY 2022. The six fleets' total required petroleum use reduction for MY 2022 was 1,301,843 gasoline gallon equivalents (GGE), and their total actual petroleum consumption reduction was 1,827,270 GGE, exceeding the aggregate petroleum reduction requirement as a group by 525,427 GGE. The fleets met and

exceeded their petroleum reduction goals via the following methods (percentages based on the total petroleum reduction reported [amount required plus additional achieved]):

- Using biodiesel blends (70%).
- Using idle reduction strategies—onboard technology and idling time reduction (25%).
- Using alternative fuels (4%).
- Reducing vehicle miles traveled and improving fuel economy (approximately 1%).

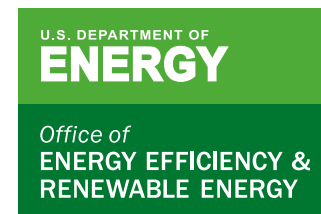
The petroleum reduction the six fleets achieved using Alternative Compliance in MY 2022 was greater than the petroleum reduction of the seven fleets using Alternative Compliance in MY 2021.

Notices of Intent

In March 2022, DOE received seven notices of intent to apply for a waiver from Standard Compliance for MY 2023, four less than the number of notices received for MY 2022 compliance.

For More Information

Learn more about the State and Alternative Fuel Provider Fleet Program and Standard and Alternative Compliance at epact.energy.gov, or contact the Regulatory Information Line at 202-586-9171 or regulatory.info@nrel.gov. ■



For more information, visit: epact.energy.gov

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