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RENEWABLE ENERGY

Credits for Investments in Alternative Fuel Infrastructure, Alternative Fuel Non-Road Equipment, and Emerging Technologies

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Preface

This document explains the U.S. Department of Energy's (DOE) position under the Standard Compliance method of DOE's Alternative Fuel Transportation Program (Program; 10 C.F.R. Part 490) regarding alternative fuel vehicle (AFV) credits for investments by covered fleets in alternative fuel infrastructure, alternative fuel non-road equipment, and emerging technologies.

In summary, consistent with DOE's final rule under section 133 of the Energy Independence and Security Act of 2007 (EISA; Pub. L. No. 110-140),[1] since Model Year (MY) 2014, covered fleets making investments in any of these categories have been eligible for the following AFV credits:

- Alternative fuel infrastructure – 1 AFV credit for every $25,000 invested during a model year
- Alternative fuel non-road equipment – 1 AFV credit for every $25,000 invested during a model year
- Emerging technologies – 2 AFV credits for the first $50,000 invested during a model year and 1 AFV credit for every $25,000 thereafter.

Each of these investment categories and the relevant limitations are discussed below.

[1] See 79 FR 15881 (Mar. 21, 2014) (EISA section 133 final rule).

Alternative Fuel Infrastructure

The term "alternative fuel infrastructure," defined in 10 C.F.R. section 490.501, encompasses fueling stations for motor vehicles that operate on liquid or gaseous alternative fuels and charging stations for motor vehicles propelled by electricity as well as neighborhood electric vehicles. Since MY 2014, a covered fleet that invests in such infrastructure during a model year has been eligible for 1 AFV credit for every $25,000 invested, up to a maximum of 10 credits for publicly accessible stations and 5 credits for stations not publicly accessible, with an aggregate annual maximum of 10 credits.

For example, a covered fleet that invests $250,000 during a model year in 1 or more public stations is eligible for 10 AFV credits, while a fleet that invests $125,000 in 1 or more private stations is eligible for 5 AFV credits. In addition, a covered fleet that invests $125,000 in public stations and an additional $125,000 in private stations is eligible for 5 credits for the public station and 5 credits for the private station, for a total of 10 AFV credits. Further, a fleet that invests $250,000 during a model year in public stations, as well as $25,000 in a private station, is eligible for 10 AFV credits due to the annual maximum.

Importantly, the public or private alternative fueling or charging station(s) invested in must have been put into operation during the model year for which credit is sought, and the investment must have been made (i.e., the station(s) must have been paid for, in whole or in part) by the covered fleet requesting AFV credit. Investments made prior to the model year in which the infrastructure is put into operation may be included in the tally of funds invested (see *Multi-Year Investments* below). A fleet ***may*** earn credit for an investment that it makes in alternative fuel infrastructure owned or operated by another entity. For example, a covered fleet that provides funds for the construction of a private natural gas (compressed or liquefied) fueling station located on another company's property may seek credit for that alternative fuel infrastructure investment even though the other company owns the station. Specifically, with respect to charging stations, so-called Level 1 charging stations (as well as Level 2 and DC fast-charging stations) are eligible for credit, but the mere addition of 120-volt electrical outlets is not. Learn more about charging stations at on the AFDC's Electricity Infrastructure page (afdc.energy.gov/fuels/electricity_infrastructure.html).

Alternative Fuel Non-Road Equipment

The term "alternative fuel non-road equipment," defined in 10 C.F.R. section 490.501, includes mobile (i.e., self-propelled) cargo and handling, farm, landscaping, and construction equipment (e.g., forklifts, tractors, riding lawn mowers, bulldozers, backhoes). Since MY 2014, a covered fleet that invests in—purchases—such equipment during a model year has been eligible for 1 AFV credit for every $25,000 invested, up to a maximum of 5 credits per model year.

The mobile, non-road equipment must have been put into operation during the model year for which AFV credit is sought, and the fleet must certify the equipment is being operated on alternative fuel. Unlike alternative fuel infrastructure, DOE will not allocate AFV credit for an investment that a fleet makes in alternative fuel non-road equipment owned by another entity. Examples of alternative fuel nonroad equipment for which covered fleets have earned credit under the Program include electric utility vehicles, riding lawnmowers powered by propane, and riding electric floor scrubbers.

Emerging Technologies

The term "emerging technology," defined in 10 C.F.R. section 490.501, refers to pre-production or pre-commercially available versions of certain electric vehicles. Pre-production fuel cell electric vehicles (FCEV), hybrid electric vehicles (HEV), medium- or heavy-duty electric or fuel cell electric vehicles, neighborhood electric vehicles, or plug-in electric drive vehicles qualify as emerging technology vehicles. Generally such pre-production vehicles do have a VIN. The online reporting tool form, however, does require a unique VIN number for each vehicle. Please contact the Program for help with VINs for these vehicles. Since MY 2014, a covered fleet that invests in—purchases—such technology has been eligible for 2 AFV credits when the expenditure amounts to $50,000 and 1 AFV credit for each additional $25,000 invested, up to an annual maximum of 5 AFV credits (corresponding to $125,000 invested).

The emerging technology must have been put into operation during the model year for which AFV credit is sought, and to obtain credit, the fleet must demonstrate that the pre-production vehicle(s) was not otherwise treated as an AFV acquisition or allocated AFV credit under the Program. Hence, for qualifying pre-production vehicles that are also AFVs, covered fleets need to keep in mind that they will not be allowed to earn AFV credit for their emerging technology investment and also count those same vehicles as AFV acquisitions. To do otherwise would amount to double counting the vehicles.

For example, a fleet that invests $225,000 in 3 pre-production light-duty FCEVs fueled by hydrogen cannot seek the maximum of 5 AFV credits (stemming from the $225,000 investment) and also include the 3 vehicles as light-duty AFV acquisitions in the fleet's annual report. Such duplicative treatment is not allowed (even when the pre-production vehicles are non-AFVs and thus eligible for AFV credit under the other provisions of DOE's EISA section 133 final rule). The fleet must choose between listing the 3 FCEVs as AFV acquisitions in its annual report and requesting AFV credits for the emerging technology investment. In this instance, the fleet would be better off seeking 5 AFV credits for its emerging technology investment rather than listing the 3 vehicles as AFV acquisitions in its annual report.

In a different scenario, however, a covered fleet that invests $375,000 in 6 pre-production light-duty battery electric vehicles would fare better listing the 6 vehicles as AFV acquisitions; if the fleet were to seek AFV credit for the emerging technology investment, the fleet would earn only 5 AFV credits.[2] Regardless of the approach taken, when the emerging technology is a light-duty FCEV, light-duty HEV, or light-duty plug-in electric drive vehicle (i.e., battery electric or plug-in hybrid electric vehicle [PHEV]), the fleet must count the acquisition as a light-duty motor vehicle acquisition when calculating its annual AFV-acquisition requirement (i.e., for annual reporting purposes).

As another example, assume a covered fleet that expended during the subject model year $50,000 on each of 10 pre-production light-duty PHEVs that qualify as AFVs, for a total emerging technology investment of $500,000. Rather than include the 10 PHEVs as light-duty AFV acquisitions in its annual report (which would ensure the allocation of 10 AFV credits), the fleet may seek 5 AFV credits for the $125,000 emerging technology investment that resulted in three of the PHEVs, and list the remaining seven PHEVs as AFV acquisitions.[3] Hence, the fleet would earn a total of 12 AFV credits.

[2] Alternatively, the fleet could seek 3 AFV credits for the $125,000 emerging technology investment that resulted in 3 of the battery electric vehicles and simultaneously list the remaining 3 vehicles as AFV acquisitions, yielding the same outcome—a total of 6 AFV credits.

[3] This can be done even though the PHEVs, as pre-production vehicles, likely would lack a vehicle identification number.

General Concepts Applicable to All of the Investment Categories

Aggregation

For each of the three investment categories, DOE will not allocate fractional credits, which means that unless the minimum thresholds (and subsequent increments) are met, no fractions of credit will be accorded. In other words, investing $10,000 during a model year in alternative fuel infrastructure will not generate any AFV credit, while investing $40,000 during that same model year in alternative fuel non-road equipment will generate 1 AFV credit. Covered fleets, however, may aggregate the monetary sums that they invest in a single model year in order to reach an applicable AFV credit threshold. Thus, in the case of the fleet that invested $50,000 during a model year ($10,000 in alternative fuel infrastructure and $40,000 in alternative fuel non-road equipment), it may combine the $10,000 with the excess (i.e., un-credited) $15,000 that is invested in alternative fuel non-road equipment to earn an additional credit, for a total of 2 AFV credits.

As another example, a fleet that invests $40,000 in alternative fuel non-road equipment and $60,000 in an emerging technology may earn a total of 4 AFV credits – 1 AFV credit for the investment in alternative fuel non-road equipment (leaving a $15,000 excess), 2 AFV credits for the investment in emerging technology (leaving a $10,000 excess), and 1 additional AFV credit by aggregating the excess $15,000 and excess $10,000 amounts to reach the $25,000 alternative fuel non-road equipment investment threshold. In yet another example, a fleet that invests $10,000 in a private alternative fueling station and $15,000 in alternative fuel non-road equipment may aggregate these amounts and thereby earn 1 AFV credit.

Note, though, that in aggregating investment funds, additional dollar amounts from a category for which the fleet has already earned the maximum number of AFV credits may not be used to increase the number of credits earned in a different category. So, a fleet that invests $45,000 in public charging stations and $130,000 in emerging technology may earn 1 AFV credit for the former investment and 5 AFV credits for the latter investment. Because the fleet maximized the number of credits it could earn from its emerging technology investment, the excess $5,000 from that category may not be aggregated with the excess $20,000 ($45,000 minus $25,000) invested in public charging stations to yield an additional AFV credit for that alternative fuel infrastructure investment.

Multi-Year Investments

For all the investment categories, DOE acknowledges that a fleet's expenditures may span more than one model year. A covered fleet, for example, may invest $12,500 during MY 2018 in the construction of a public alternative fueling station and an additional $12,500 during MY 2019 in the same station. The station became operational in MY2019. As indicated above, for each type of investment, a covered fleet is eligible for AFV credit in the year the applicable alternative fuel infrastructure or fuel non-road equipment/emerging technology is put into operation. In this example, because the alternative fueling station became operational in MY 2019, 1 AFV credit will apply to the MY 2019 annual report.

Credit Activity Reporting

To receive AFV credit for any investment, a covered fleet must include investment-specific information in its credit activity report (herein after referred to as the fleet's annual report), as specified in 10 C.F.R. section 490.508(b). It is necessary that fleets provide the following information to DOE.

Alternative Fuel Infrastructure

- Model year or period in which the investment was made
- Investment amount
- Physical location and a detailed description of the station, including whether it is publicly accessible, and the type(s) of alternative fuel offered
- Date on which the station became operational.

Alternative Fuel Non-Road Equipment

- Model year or period in which the investment was made
- Investment amount
- Detailed description of the non-road equipment, including a certification that it is being operated on alternative fuel, date of purchase, and date on which it was put into operation.

Emerging Technologies

- Model year or period in which the investment was made
- Investment amount
- Certification that the fleet is not otherwise seeking AFV acquisition treatment or AFV credit for the emerging technology's acquisition
- Detailed description of the emerging technology, including the manufacturer, date of purchase, and date on which it was put into operation.

Completing the forms provided in the S&AFP Standard Compliance (SC) online reporting tool or SC spreadsheet constitutes completion of the annual report.

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