

§474.4

(3) Calculate the petroleum-equivalent fuel economy by dividing the appropriate petroleum-equivalency factor (depending on whether any petroleum-powered accessories are installed; see paragraph (b) of this section) by the combined energy consumption value, and round to the nearest 0.01 miles per gallon.

(b) The petroleum-equivalency factors for electric vehicles are as follows:

(1) If the electric vehicle does not have any petroleum-powered accessories installed, the value of the petroleum equivalency factor is 82,049 Watt-hours per gallon.

(2) If the electric vehicle has any petroleum-powered accessories installed, the value of the petroleum-equivalency factor is 73,844 Watt-hours per gallon.

§474.4 Test procedures.

(a) The electric vehicle energy consumption values used in the calculation of petroleum-equivalent fuel economy under §474.3 of this part will be determined by the Environmental Protection Agency using the Highway Fuel Economy Driving Schedule and Urban Dynamometer Driving Schedule test cycles at 40 CFR parts 86 and 600.

(b) The “Special Test Procedures” provisions of 40 CFR 86.090-27 may be used to accommodate any special test procedures required for testing the energy consumption of electric vehicles.

§474.5 Review and Update

The Department will review Part 474 five years after the date of publication as a final rule to determine whether any updates and/or revisions are necessary. DOE will publish a notice in the FEDERAL REGISTER soliciting stakeholder input in this review. The Department will publish the findings of the review and any resulting adjustments to Part 474 in the FEDERAL REGISTER.

APPENDIX TO PART 474—SAMPLE PETROLEUM-EQUIVALENT FUEL ECONOMY CALCULATIONS

Example 1: An electric vehicle is tested in accordance with Environmental Protection Agency procedures and is found to have an Urban Dynamometer Driving Schedule energy consumption value of 265 Watt-hours per mile and a Highway Fuel Economy Driv-

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ing Schedule energy consumption value of 220 Watt-hours per mile. The vehicle is not equipped with any petroleum-powered accessories. The combined electrical energy consumption value is determined by averaging the Urban Dynamometer Driving Schedule energy consumption value and the Highway Fuel Economy Driving Schedule energy consumption value using weighting factors of 55 percent urban, and 45 percent highway:

$$\text{combined electrical energy consumption value} = (0.55 * \text{urban}) + (0.45 * \text{highway}) = (0.55 * 265) + (0.45 * 220) = 244.75 \text{ Wh/mile}$$

Since the vehicle does not have any petroleum-powered accessories installed, the value of the petroleum equivalency factor is 82,049 Watt-hours per gallon, and the petroleum-equivalent fuel economy is:

$$(82,049 \text{ Wh/gal}) (244.75 \text{ Wh/mile}) = 335.24 \text{ mpg}$$

Example 2: The vehicle from Example 1 is equipped with an optional diesel-fired cabin heater/defroster. For the purposes of this example, it is assumed that the electrical efficiency of the vehicle is unaffected.

Since the vehicle has a petroleum-powered accessory installed, the value of the petroleum equivalency factor is 73,844 Watt-hours per gallon, and the petroleum-equivalent fuel economy is:

$$(73,844 \text{ Wh/gal}) (244.75 \text{ Wh/mile}) = 301.71 \text{ mpg}$$

PART 490—ALTERNATIVE FUEL TRANSPORTATION PROGRAM

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APPENDIX A TO SUBPART A OF PART 490—METROPOLITAN STATISTICAL AREAS/CONSOLIDATED METROPOLITAN STATISTICAL AREAS WITH 1980 POPULATIONS OF 250,000 OR MORE

Subpart B [Reserved]

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