

**PART 474—ELECTRIC AND HYBRID VEHICLE RESEARCH, DEVELOPMENT, AND DEMONSTRATION PROGRAM; PETROLEUM-EQUIVALENT FUEL ECONOMY CALCULATION**

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

AUTHORITY: 49 U.S.C. 32901 *et seq.*

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**§ 474.1 Purpose and Scope.**

This part contains procedures for calculating a value for the petroleum-equivalent fuel economy of electric vehicles, as required by 49 U.S.C. 32904(a)(2). The petroleum-equivalent fuel economy value is intended to be used by the Environmental Protection Agency in calculating corporate average fuel economy values pursuant to regulations at 40 CFR Part 600—Fuel Economy of Motor Vehicles.

**§ 474.2 Definitions.**

For the purposes of this part, the term:

*Combined energy consumption value* means the weighted average of the Urban Dynamometer Driving Schedule and the Highway Fuel Economy Driving Schedule energy consumption values (weighted 55/45 percent, respectively), as determined by the Environmental Protection Agency in accordance with 40 CFR parts 86 and 600.

*Electric vehicle* means a vehicle that is powered by an electric motor drawing current from rechargeable storage batteries or other portable electrical energy storage devices, provided that:

(1) Recharge energy must be drawn from a source off the vehicle, such as residential electric service; and

(2) The vehicle must comply with all provisions of the Zero Emission Vehicle definition found in 40 CFR 88.104–94(g).

*Highway Fuel Economy Driving Schedule energy consumption value* means the average number of watt-hours of electrical energy required for an electric vehicle to travel one mile of the Highway Fuel Economy Driving Schedule, as determined by the Environmental Protection Agency.

*Petroleum equivalency factor* means the value specified in § 474.3(b) of this part, which incorporates the parameters listed in 49 U.S.C. 32904(a)(2)(B) and is used to calculate petroleum-equivalent fuel economy.

*Petroleum-equivalent fuel economy* means the value, expressed in miles per gallon, that is calculated for an electric vehicle in accordance with § 474.3(a) of this part, and reported to the Administrator of the Environmental Protection Agency for use in determining the vehicle manufacturer's corporate average fuel economy.

*Petroleum-powered accessory* means a vehicle accessory (e.g., a cabin heater, defroster, and/or air conditioner) that:

(1) Uses gasoline or diesel fuel as its primary energy source; and

(2) Meets the requirements for fuel, operation, and emissions in 40 CFR part 88.104–94(g).

*Urban Dynamometer Driving Schedule energy consumption value* means the average number of Watt-hours of electrical energy required for an electric vehicle to travel one mile of the Urban Dynamometer Driving Schedule, as determined by the Environmental Protection Agency.

**§ 474.3 Petroleum-equivalent fuel economy calculation.**

(a) The petroleum-equivalent fuel economy for an electric vehicle is calculated as follows:

(1) Determine the electric vehicle's Urban Dynamometer Driving Schedule energy consumption value and the Highway Fuel Economy Driving Schedule energy consumption value in units of Watt-hours per mile;

(2) Determine the combined energy consumption value by averaging the Urban Dynamometer Driving Schedule energy consumption value and the Highway Fuel Economy Driving Schedule energy consumption value using a weighting of 55 percent urban/45 percent highway; and