

118TH CONGRESS
2D SESSION

S. 4507

To amend title 49, United States Code, to make the method used by the Department of Energy for calculating electric vehicle-equivalent petroleum fuel economy more accurate, and for other purposes.

IN THE SENATE OF THE UNITED STATES

JUNE 11, 2024

Mr. BARRASSO (for himself, Mr. RISCH, Mr. LEE, Mr. CASSIDY, Mr. HOEVEN, and Ms. LUMMIS) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

A BILL

To amend title 49, United States Code, to make the method used by the Department of Energy for calculating electric vehicle-equivalent petroleum fuel economy more accurate, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Recalculating Electric
5 Vehicle Efficiency for Accuracy and Legitimacy Act of
6 2024”.

1 **SEC. 2. EFFICIENCY CALCULATION FOR ELECTRIC VEHI-**
2 **CLES.**

3 Section 32904(a)(2) of title 49, United States Code,
4 is amended by striking subparagraph (B) and inserting
5 the following:

6 “(B)(i) If a manufacturer manufactures an
7 electric vehicle, the Administrator shall include in
8 the calculation of average fuel economy under para-
9 graph (1) equivalent petroleum based fuel economy
10 values determined by the Secretary of Energy for
11 various classes of electric vehicles that are—

12 “(I) directly comparable to those used for
13 gasoline-fueled and diesel-fueled vehicles with
14 internal combustion engines;

15 “(II) based on the gross vehicle weight rat-
16 ings of the electric vehicles; and

17 “(III) calculated in accordance with the
18 factors described in subclauses (I) through (VI)
19 of clause (ii).

20 “(ii) Each year, the Secretary of Energy shall
21 review the values described in clause (i) and deter-
22 mine and propose necessary revisions to those values
23 based on the following factors:

24 “(I) The approximate overall electrical en-
25 ergy efficiency of the electric vehicle and the

1 durability of the battery of the electric vehicle,
2 taking into consideration—

3 “(aa) the type of electric vehicle;

4 “(bb) the intended use, including com-
5 mercial use, configuration, and weight of
6 the electric vehicle;

7 “(cc) the degradation in electrical en-
8 ergy efficiency experienced by the electric
9 vehicle battery and vehicle as the electric
10 vehicle battery and electric vehicle, respec-
11 tively, ages;

12 “(dd) the degradation that may occur
13 from frequent fast charging of electric ve-
14 hicle batteries on the vehicle efficiency and
15 driving range;

16 “(ee) the impact on electrical effi-
17 ciency from charging electric vehicle bat-
18 teries to 100 percent over the useful life of
19 the electric vehicle; and

20 “(ff) the type of battery with which
21 the electric vehicle is equipped.

22 “(II) The national average electrical gen-
23 eration and transmission efficiencies, as re-
24 ported by the Energy Information Administra-
25 tion, for the prior year.

1 “(III) The need of the United States to
2 conserve all forms of energy and the relative
3 scarcity and value to the United States of all
4 fuel used—

5 “(aa) to generate electricity;

6 “(bb) to produce electric vehicle bat-
7 teries and electric vehicles; and

8 “(cc) to build the necessary electric
9 vehicle charging infrastructure.

10 “(IV) The need of the United States to
11 conserve all forms of critical minerals and other
12 key materials used in electric vehicle batteries
13 and the relative scarcity and value to the
14 United States of all mineral resources used to
15 manufacture electric vehicles.

16 “(V)(aa) The energy inputs into the min-
17 ing, refining, transportation, and use of critical
18 minerals and other key materials used in elec-
19 tric vehicles, including electric vehicle batteries.

20 “(bb) The Secretary of Energy shall deter-
21 mine values under item (aa) that address all en-
22 ergy inputs for electric vehicles through the
23 final production of the electric vehicle for sale.

1 “(VI) The specific patterns of use of elec-
2 tric vehicles compared to petroleum-fueled vehi-
3 cles, including—

4 “(aa) the impact of summer and win-
5 ter weather extremes;

6 “(bb) the use of air conditioning,
7 heating, and other draws on the supply of
8 electrical energy onboard the electric vehi-
9 cle;

10 “(cc) the range of the different types
11 and classes of electric vehicles;

12 “(dd) the difference in distance added
13 to an electric vehicle for a specific period
14 of charging based on the differences be-
15 tween short-range and long-range bat-
16 teries; and

17 “(ee) state-of-charge losses when the
18 battery of the electric vehicle is idle.”.

19 **SEC. 3. SECRETARY OF ENERGY PARTICIPATION.**

20 Section 32902 of title 49, United States Code, is
21 amended by striking subsection (j) and inserting the fol-
22 lowing:

23 “(j) SECRETARY OF ENERGY.—

24 “(1) IN GENERAL.—Before the Secretary of
25 Transportation issues a notice proposing to prescribe

1 or amend an average fuel economy standard under
2 subsection (a), (c), or (g), the Secretary of Energy
3 shall—

4 “(A) provide, as required under subsection
5 (a)(2)(B)(ii) of section 32904, to the Secretary
6 of Transportation a determination that the
7 equivalent petroleum based fuel economy values
8 used in the calculation of average fuel economy
9 under subsection (a)(1) of that section require
10 revisions based on the factors described in sub-
11 clauses (I) through (VI) of section
12 32904(a)(2)(B)(ii);

13 “(B) coordinate the inclusion of any re-
14 vised equivalent petroleum based fuel economy
15 values with any proposed or amended average
16 fuel economy standards while considering ade-
17 quate lead time planning across full model
18 years;

19 “(C) ensure that any revisions to the
20 equivalent petroleum based fuel economy values,
21 including a revised petroleum equivalency factor
22 value, are used concurrently in any proposed or
23 amended average fuel economy standard issued
24 under subsection (a), (c), or (g);

1 “(D) harmonize the use of revised equiva-
2 lent petroleum based fuel economy values with
3 average fuel economy standards including, as
4 appropriate, as part of a mathematical calcula-
5 tion;

6 “(E) not later than 10 days after the date
7 on which the Secretary of Energy receives no-
8 tice from the Secretary of Transportation about
9 a proposed standard, provide to the Secretary
10 of Transportation written comments about the
11 impact of the proposed standard on conserva-
12 tion goals if the Secretary of Energy concludes
13 the proposed standard would adversely affect
14 the conservation goals of the Secretary of En-
15 ergy; and

16 “(F) receive notice from the Secretary of
17 Transportation before final action on a pro-
18 posed standard or an exemption from a stand-
19 ard under this section is taken and be provided
20 reasonable time to comment.

21 “(2) NOTICE COMMENTS.—If the Secretary of
22 Transportation does not revise a proposed standard
23 to take into account comments received from the
24 Secretary of Energy under paragraph (1)(E), the

1 Secretary of Transportation shall include those com-
2 ments in the notice.”.

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