

117TH CONGRESS
2D SESSION

S. 4148

To require the Secretary of Energy to complete and publish a study and develop a plan relating to the ability of the electric system to meet the electricity demand of new electric vehicle charging infrastructure, and for other purposes.

IN THE SENATE OF THE UNITED STATES

MAY 5, 2022

Mr. REED introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

A BILL

To require the Secretary of Energy to complete and publish a study and develop a plan relating to the ability of the electric system to meet the electricity demand of new electric vehicle charging infrastructure, 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 “Electric Vehicle Grid
5 Readiness, Improvement, and Development Act” or the
6 “EV GRID Act”.

1 **SEC. 2. STUDY AND PLAN RELATING TO THE ABILITY OF**
2 **THE ELECTRIC SYSTEM TO MEET THE ELEC-**
3 **TRICITY DEMAND OF NEW ELECTRIC VEHI-**
4 **CLE CHARGING INFRASTRUCTURE.**

5 (a) DEFINITIONS.—In this section:

6 (1) ELECTRIC VEHICLE CHARGING INFRA-
7 STRUCTURE.—The term “electric vehicle charging
8 infrastructure” means the charging infrastructure
9 necessary to support light-duty, medium-duty, and
10 heavy-duty on-road electric vehicles, including charg-
11 ing infrastructure that is located at a workplace,
12 recreational destination, vehicle corridor, home, or
13 depot.

14 (2) PRESIDENT’S GREENHOUSE GAS REDUC-
15 TION TARGET.—The term “President’s greenhouse
16 gas reduction target” means the target, established
17 by the President, of reducing greenhouse gas pollu-
18 tion by 50 to 52 percent from 2005 levels by 2030.

19 (3) SECRETARY.—The term “Secretary” means
20 the Secretary of Energy.

21 (4) STUDY.—The term “Study” means the
22 study completed and published under subsection
23 (b)(1).

24 (b) STUDY.—

25 (1) IN GENERAL.—Not later than 180 days
26 after the date of enactment of this Act, the Sec-

retary shall complete, and publish on the website of the Department of Energy, a study that assesses the ability of the electric system to meet the electricity demand of electric vehicle charging infrastructure that is installed on or after that date of enactment.

(2) REQUIREMENTS.—The Study shall—

(A) include an estimate of—

(i) the growth in the use of electric vehicles that is necessary to meet the President’s greenhouse gas reduction target;

(ii) the additional electric generation, transmission, and distribution capacity that will need to be added to the electric system to meet the electricity demand of electric vehicle charging infrastructure that is installed on or after the date of enactment of this Act; and

(iii) how the electricity demand described in clause (ii) will vary by—

(I) geography;

(II) population density;

(III) vehicle-grid interaction scenario; and

1 (IV) time of day at which the
2 electric vehicle charging infrastructure
3 is used; and

4 (B) identify geographic areas in which
5 greater investment in the electric system is nec-
6 essary to meet the electricity demand of electric
7 vehicle charging infrastructure installed on or
8 after the date of enactment of this Act in those
9 geographic areas.

10 (c) PLAN AND RECOMMENDATIONS.—Not later than
11 90 days after the date on which the Study is published
12 under subsection (b)(1), the Secretary, in coordination
13 with the Building a Better Grid Initiative of the Office
14 of Electricity and the Vehicle Technologies Office of the
15 Office of Energy Efficiency and Renewable Energy,
16 shall—

17 (1) develop a plan, based on the Study, for how
18 the Department of Energy may assist the electric
19 system with meeting the increase in the demand for
20 electricity estimated in the Study; and

21 (2) provide to Congress recommendations for
22 legislation that would support the Department of
23 Energy in assisting the electric system as described
24 in paragraph (1).

1 (d) AUTHORIZATION OF APPROPRIATIONS.—There is
2 authorized to be appropriated to the Secretary to carry
3 out this section \$4,000,000 for fiscal year 2023.

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