

119TH CONGRESS
2D SESSION

H. R. 8706

To amend the Energy Act of 2020 to modify certain programs and projects with respect to energy storage technology, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

MAY 7, 2026

Mr. PANETTA (for himself and Mr. HARRIGAN) introduced the following bill; which was referred to the Committee on Science, Space, and Technology

A BILL

To amend the Energy Act of 2020 to modify certain programs and projects with respect to energy storage technology, 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 “Better Energy Storage
5 and Safety Act”.

6 **SEC. 2. MODIFICATION OF CERTAIN PROGRAMS AND**
7 **PROJECTS WITH RESPECT TO ENERGY STOR-**
8 **AGE TECHNOLOGY.**

9 (a) CLARIFICATION OF DEFINITION OF ENERGY
10 STORAGE SYSTEM.—Subsection (a)(1) of section 3201 of

1 the Energy Act of 2020 (42 U.S.C. 17232) is amended
2 by inserting “(including any components or modules that
3 comprise such a system)” after “any system”.

4 (b) ENERGY STORAGE SYSTEM RESEARCH, DEVELOPMENT,
5 AND DEPLOYMENT PROGRAM.—

6 (1) EXPANDING OBJECTIVES.—Paragraph (2)
7 of section 3201(b) of the Energy Act of 2020 (42
8 U.S.C. 17232(b)) is amended—

9 (A) in subparagraph (A)—

10 (i) in the matter preceding clause (i),
11 by inserting “modules,” after “components,”; and
12

13 (ii) in clause (i), by inserting “of residential and utility energy storage systems”
14 after “deployment”;
15

16 (B) in subparagraph (I), by striking “and”
17 after the semicolon; and

18 (C) by adding at the end the following new
19 subparagraphs:

20 “(K) models, tools, and diagnostic data
21 sets to improve the safe installation and long-
22 term operation of energy storage systems by
23 abating expected failure modes that could damage
24 such a system, including—

1 “(i) component, module, or system
2 failure; and

3 “(ii) thermal runaway and other fire
4 and explosion risks; and

5 “(L) early detection methods and preventa-
6 tive maintenance techniques relating to failure
7 modes of energy storage systems.”.

8 (2) MODIFYING TESTING AND VALIDATION.—
9 Paragraph (3) of section 3201(b) of the Energy Act
10 of 2020 (42 U.S.C. 17232(b)) is amended to read as
11 follows:

12 “(3) BENCHMARKING, TESTING, AND VALIDA-
13 TION.—

14 “(A) IN GENERAL.—In coordination with
15 one or more National Laboratories, the Direc-
16 tor of the National Institute of Standards and
17 Technology, and the Administrator of the
18 United States Fire Administration, the Sec-
19 retary shall support the development, standard-
20 ized testing, and validation of energy storage
21 systems specified in subparagraph (B), includ-
22 ing test-bed trials and field tests, by developing
23 testing and evaluation methodologies for the fol-
24 lowing:

1 “(i) Storage technologies, controls,
2 and power electronics for such systems
3 under a variety of operating and failure
4 conditions, including such conditions that
5 occur while such a system is being utilized.

6 “(ii) Standardized and grid perform-
7 ance testing for energy storage systems,
8 materials, and technologies at each stage
9 of development and at the operational sys-
10 tem level.

11 “(iii) Reliability, safety, degradation,
12 and durability testing under standard and
13 evolving duty cycles.

14 “(iv) Component, module, and inte-
15 grated system level safety and degradation
16 stress testing to failure.

17 “(v) Accelerated life testing protocols
18 to predict estimated lifetime metrics with
19 accuracy.

20 “(vi) Equipment, including automated
21 fire suppression systems, and techniques
22 for mitigating risks of such energy storage
23 systems.

24 “(B) ENERGY STORAGE SYSTEMS SPECI-
25 FIED.—The energy storage systems specified in

1 this subparagraph are energy storage systems
2 that satisfy the following requirements:

3 “(i) Are under the program.

4 “(ii) Are operational and connected to
5 the grid.

6 “(iii) Were installed before the most
7 recent codes and standards for such sys-
8 tems.

9 “(iv) Represent a variety of the fol-
10 lowing characteristics:

11 “(I) Chemistries.

12 “(II) Compositions.

13 “(III) Installation and manufac-
14 turing techniques.

15 “(IV) Any other characteristic
16 the Secretary determines appro-
17 priate.”.

18 (3) MODIFYING PERIODIC EVALUATIONS.—
19 Paragraph (4) of section 3201(b) of the Energy Act
20 of 2020 (42 U.S.C. 17232(b)) is amended—

21 (A) by inserting “the testing and evalua-
22 tion of” after “advance”; and

23 (B) by striking “costs and increasing the
24 duration” and inserting “costs, increasing the
25 lifetime, and improving the safety”.

1 (4) MODIFYING STRATEGIC PLAN.—Paragraph
2 (5)(B) of section 3201(b) of the Energy Act of 2020
3 (42 U.S.C. 17232(b)) is amended—

4 (A) in clause (iii)(II)(bb), by striking “and
5 the mission of the Department, as determined
6 by the Secretary”;

7 (B) in clause (iv)(II), by striking “and”
8 after the semicolon;

9 (C) in clause (v), by striking the period at
10 the end and inserting “; and”; and

11 (D) by adding at the end the following new
12 clause:

13 “(vi) include a summary of the status
14 of any innovative, emerging, or alternative
15 technologies that could improve the per-
16 formance, durability, or safety of grid-scale
17 energy storage systems and any potential
18 commercial barriers to such innovative,
19 emerging, or alternative technologies.”.

20 (5) LEVERAGING OF RESOURCES.—Paragraph
21 (6) of section 3201(b) of the Energy Act of 2020
22 (42 U.S.C. 17232(b)) is amended—

23 (A) in subparagraph (C)—

24 (i) in clause (ii), by adding “and” at
25 the end; and

1 (ii) in clause (iii), by striking “and”
 2 after the semicolon;

3 (B) in subparagraph (D), by striking the
 4 period at the end and inserting a semicolon;
 5 and

6 (C) by adding at the end the following new
 7 subparagraphs:

8 “(E) the United States Fire Administra-
 9 tion; and

10 “(F) the National Institute of Standards
 11 and Technology.”.

12 (c) INCREASING NUMBER OF ENERGY STORAGE
 13 DEMONSTRATION PROJECTS.—Paragraph (1) of section
 14 3201(c) of the Energy Act of 2020 (42 U.S.C. 17232(c))
 15 is amended—

16 (1) in the matter preceding subparagraph (A)—

17 (A) by striking “September 30, 2023” and
 18 inserting “September 30, 2030”; and

19 (B) by striking “3” and inserting “5”;

20 (2) in subparagraph (A), by striking “and”
 21 after the semicolon;

22 (3) in subparagraph (B), by striking the period
 23 at the end and inserting a semicolon; and

24 (4) by adding at the end the following new sub-
 25 paragraphs:

“(C) at least 1 energy storage system demonstration project designed to further the safety of technologies described in clause (iii) or (iv) of such subsection, including through stress testing to failure; and

“(D) at least 1 energy storage system demonstration project designed to further the safety of technologies described in clause (v) or (vi) of such subsection, including through stress testing to failure.”.

(d) ENERGY STORAGE PILOT GRANT PROGRAM.—

(1) EXPANDING SELECTION REQUIREMENTS.—

Paragraph (2)(C)(ii) of section 3201(c) of the Energy Act of 2020 (42 U.S.C. 17232(c)) is amended—

(A) in subclause (II), by striking “and” after the semicolon; and

(B) by adding at the end the following new subclauses:

“(IV) improve the safety of operational energy storage systems through component, module, and integrated system level testing and evaluation; and

1 “(V) utilize data from such en-
2 ergy storage systems to improve, such
3 as through the prediction of system
4 failure, the safety of such energy stor-
5 age systems;”.

6 (2) EXPANDING OBJECTIVES.—Paragraph
7 (2)(D) of section 3201(c) of the Energy Act of 2020
8 (42 U.S.C. 17232(c)) is amended by adding at the
9 end the following new clauses:

10 “(xiii) To improve and advance the
11 robustness of testing and evaluation meth-
12 odologies for energy storage systems.

13 “(xiv) To improve and advance data
14 collection mechanisms for operational en-
15 ergy storage systems.

16 “(xv) To improve the diagnostic, arti-
17 ficial intelligence, computing, and digital
18 twin capabilities of energy storage systems.

19 “(xvi) To improve the safety of in-
20 stalled energy storage systems.

21 “(xvii) To test innovative chemistries
22 for grid-connected energy storage systems
23 that are safer than conventional chem-
24 istries for such energy storage systems.”.

1 (e) EXPANDING PRIORITIES OF THE ELECTRIC VEHI-
 2 CLE BATTERY SECOND-LIFE PROJECT.—Paragraph
 3 (3)(C) of section 3201(c) of the Energy Act of 2020 (42
 4 U.S.C. 17232(c)) is amended by inserting “advanced safe-
 5 ty testing and evaluation methodologies or” after “from”.

6 (f) CHEMISTRIES AND STRESS TESTING IN LONG-
 7 DURATION DEMONSTRATION INITIATIVE AND JOINT PRO-
 8 GRAM.—Subsection (d) of section 3201 of the Energy Act
 9 of 2020 (42 U.S.C. 17232) is amended—

10 (1) in paragraph (3)(A), by inserting “and
 11 chemistries” after “types”; and

12 (2) in paragraph (4)—

13 (A) in subparagraph (A)—

14 (i) in clause (i), by striking “scales;
 15 and” and inserting “scales and with var-
 16 ious chemistries;”;

17 (ii) in clause (ii), by striking the pe-
 18 riod at the end and inserting “; and”; and

19 (iii) by adding at the end the fol-
 20 lowing new clause:

21 “(iii) to develop safety features that
 22 prevent or mitigate the failure of long-du-
 23 ration energy storage technologies.”; and

1 (B) in subparagraph (C)(ii), by inserting
2 “for stress testing integrated energy storage
3 systems to failure” after “appropriate”.

4 (g) AUTHORIZATION OF APPROPRIATIONS.—Sub-
5 section (h) of section 3201 of the Energy Act of 2020 (42
6 U.S.C. 17232) is amended—

7 (1) in paragraph (2), by striking “and”;

8 (2) in paragraph (3), by striking the period at
9 the end and inserting “; and”; and

10 (3) by adding at the end the following new
11 paragraph:

12 “(4) to carry out programs, initiatives, and as-
13 sociated activities relating to the safety of energy
14 storage systems and energy storage technologies
15 pursuant to subsections (b) through (d), as the case
16 may be, \$30,000,000 for each of fiscal years 2027
17 through 2031, to remain available until expended.”.

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