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(Original Signature of Member)

116TH CONGRESS
2D SESSION

H. R. _____

To require the Secretary of Energy to establish an integrated energy systems research, development, and demonstration program, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

Mr. FULCHER introduced the following bill; which was referred to the Committee on _____

A BILL

To require the Secretary of Energy to establish an integrated energy systems research, development, and demonstration program, 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 “Integrated Energy Sys-
5 tems Act of 2020”.

6 **SEC. 2. INTEGRATED ENERGY SYSTEMS PROGRAM.**

7 (a) DEFINITIONS.—In this section:

1 (1) PROGRAM.—The term “program” means
2 the Integrated Energy Systems Program established
3 under subsection (b)(1).

4 (2) SECRETARY.—The term “Secretary” means
5 the Secretary of Energy.

6 (b) ESTABLISHMENT.—

7 (1) IN GENERAL.—The Secretary shall establish
8 a program, to be known as the “Integrated Energy
9 Systems Program”—

10 (A) to maximize energy production and ef-
11 ficiency;

12 (B) to develop energy systems involving
13 the integration of nuclear energy with renew-
14 able energy, fossil energy, and energy storage;
15 and

16 (C) to expand the use of emissions-reduc-
17 ing energy technologies into nonelectric sectors
18 to achieve significant reductions in environ-
19 mental emissions.

20 (2) PROGRAM ADMINISTRATION; PARTNERS.—

21 The program shall be carried out by the Undersecre-
22 tary of Energy, in partnership with—

23 (A) relevant offices within the Department
24 of Energy;

25 (B) National Laboratories;

1 (C) institutions of higher education; and

2 (D) the private sector.

3 (3) GOALS AND MILESTONES.—The Secretary
4 shall establish quantitative goals and milestones for
5 the program.

6 (c) RESEARCH AREAS.—Research areas under the
7 program may include—

8 (1) technology innovation to further the expansion
9 of emissions-reducing energy technologies to accommodate
10 a modern, resilient grid system by—

11 (A) effectively leveraging multiple energy
12 sources;

13 (B) enhancing and streamlining engineering
14 design;

15 (C) carrying out process demonstrations to
16 optimize performance; and

17 (D) streamlining regulatory review;

18 (2) advanced power cycles, energy extraction,
19 and processing of complex hydrocarbons to produce
20 high-value chemicals;

21 (3) efficient use of emissions-reducing energy
22 technologies for hydrogen production to support
23 transportation and industrial needs;

1 (4) enhancement and acceleration of domestic
2 manufacturing and desalinization technologies and
3 processes by optimally using clean energy sources;

4 (5) more effective thermal energy use, trans-
5 port, and storage;

6 (6) the demonstration of nuclear energy deliv-
7 ery for—

8 (A) the production of chemicals, metals,
9 and fuels;

10 (B) the capture, use, and storage of car-
11 bon;

12 (C) renewable integration with an inte-
13 grated energy system; and

14 (D) conversion of carbon feedstock, such
15 as coal, biomass, natural gas, and refuse waste,
16 to higher value nonelectric commodities;

17 (7) the development of new analysis capabilities
18 to identify the best ways—

19 (A) to leverage multiple energy sources in
20 a given region; and

21 (B) to quantify the benefits of integrated
22 energy systems; and

23 (8) any other area that, as determined by the
24 Secretary, meets the purpose and goals of the pro-
25 gram.

1 (d) GRANTS.—The Secretary may award grants
2 under the program to support the goals of the program.

3 **SEC. 3. REPORT ON DUPLICATIVE PROGRAMS.**

4 Not later than 1 year after the date of enactment
5 of this Act, and annually thereafter, the Secretary shall
6 submit to Congress a report identifying any program that
7 is duplicative of the program established under section
8 2(b)(1).