

117TH CONGRESS
1ST SESSION

S. 3428

To require the Secretary of Energy to establish a program to provide Federal financial assistance to support advanced nuclear reactors and associated supply chain infrastructure, and for other purposes.

IN THE SENATE OF THE UNITED STATES

DECEMBER 16, 2021

Mr. MANCHIN (for himself and Mr. BARRASSO) 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 establish a program to provide Federal financial assistance to support advanced nuclear reactors and associated supply chain 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 “Fission for the Future
5 Act of 2021”.

6 **SEC. 2. ADVANCED NUCLEAR TECHNOLOGIES FEDERAL FI-**
7 **NANCIAL ASSISTANCE PROGRAM.**

8 (a) **DEFINITIONS.**—In this section:

1 (1) **ADVANCED NUCLEAR REACTOR.**—The term
2 “advanced nuclear reactor” has the meaning given
3 the term in section 951(b) of the Energy Policy Act
4 of 2005 (42 U.S.C. 16271(b)).

5 (2) **ELECTRIC UTILITY.**—The term “electric
6 utility” has the meaning given the term in section
7 3 of the Federal Power Act (16 U.S.C. 796).

8 (3) **ELIGIBLE ENTITY.**—The term “eligible enti-
9 ty” means each of—

10 (A) a State;

11 (B) an Indian Tribe (as defined in section
12 4 of the Indian Self-Determination and Edu-
13 cation Assistance Act (25 U.S.C. 5304));

14 (C) a Tribal Organization (as defined in
15 section 4 of the Indian Self-Determination and
16 Education Assistance Act (25 U.S.C. 5304));

17 (D) a unit of local government;

18 (E) an electric utility;

19 (F) a National Laboratory;

20 (G) an institution of higher education; and

21 (H) a private entity specializing in—

22 (i) advanced nuclear technology devel-
23 opment;

24 (ii) nuclear supply chains; or

1 (iii) with respect to nuclear tech-
2 nologies and nonelectric applications of nu-
3 clear technologies, construction, project fi-
4 nancing, contract structuring and risk allo-
5 cation, or regulatory and licensing proc-
6 esses.

7 (4) INSTITUTION OF HIGHER EDUCATION.—The
8 term “institution of higher education” has the
9 meaning given the term in section 101(a) of the
10 Higher Education Act of 1965 (20 U.S.C. 1001(a)).

11 (5) NATIONAL LABORATORY.—The term “Na-
12 tional Laboratory” has the meaning given the term
13 in section 2 of the Energy Policy Act of 2005 (42
14 U.S.C. 15801).

15 (6) PROGRAM.—The term “program” means
16 the program established under subsection (b)(1).

17 (7) SECRETARY.—The term “Secretary” means
18 the Secretary of Energy.

19 (b) ESTABLISHMENT OF PROGRAM.—

20 (1) IN GENERAL.—The Secretary shall establish
21 a program to provide Federal financial assistance to
22 eligible entities to support the commercial planning,
23 licensing, development, and construction, and con-
24 struction planning, of—

1 (A) advanced nuclear reactors for the pur-
2 pose of enhancing grid resilience, reliability, and
3 security while also seeking to reduce emissions;
4 or

5 (B) supply chain infrastructure associated
6 with advanced nuclear reactors or related tech-
7 nologies.

8 (2) COMPETITIVE PROCEDURES.—To the max-
9 imum extent practicable, the Secretary shall carry
10 out the program using a competitive, merit-based re-
11 view process that is consistent with section 989 of
12 the Energy Policy Act of 2005 (42 U.S.C. 16353).

13 (c) APPLICATIONS.—An eligible entity desiring Fed-
14 eral financial assistance under the program shall submit
15 to the Secretary an application at such time, in such man-
16 ner, and containing such information as the Secretary may
17 require.

18 (d) SELECTION.—

19 (1) IN GENERAL.—In selecting eligible entities
20 to receive Federal financial assistance under the pro-
21 gram, the Secretary shall give special consideration
22 to projects—

23 (A) to develop or provide services to sup-
24 port—

25 (i) market analysis;

- 1 (ii) project structure models;
- 2 (iii) models for electricity market
3 analysis;
- 4 (iv) nonelectric applications;
- 5 (v) financial models;
- 6 (vi) analysis, planning, and, as appro-
7 priate, management of environmental
8 issues at fossil fuel electric generation fa-
9 cilities that are retired or scheduled to re-
10 tire; and
- 11 (vii) site planning, review, testing,
12 analysis, and preparation;
- 13 (B) to support licensing activities, permit-
14 ting, and environmental impact studies; and
- 15 (C) for—
- 16 (i)(I) the construction planning of ad-
17 vanced nuclear reactors; and
- 18 (II) related—
- 19 (aa) planning and construction of
20 transmission and distribution systems;
- 21 (bb) modernization of generation
22 facilities;
- 23 (cc) development of microgrids;
- 24 and
- 25 (dd) supply chain infrastructure;

1 (ii) infrastructure for nonelectric ap-
2 plications; and

3 (iii) acquisition of relevant rights-of-
4 way.

5 (2) PRIORITY.—In selecting eligible entities to
6 receive Federal financial assistance under the pro-
7 gram, the Secretary shall give priority to eligible en-
8 tities that—

9 (A) plan to carry out projects at or near
10 the site of 1 or more fossil fuel electric genera-
11 tion facilities that are retired or scheduled to
12 retire, including multi-unit facilities that are
13 partially shut down—

14 (i) to reduce the cost of—

15 (I) infrastructure requirements;

16 (II) transmission requirements;

17 and

18 (III) licensing and permitting re-
19 quirements;

20 (ii) to support the productive reuse of
21 fossil fuel electric generation facilities that
22 are retired or scheduled to retire; and

23 (iii) to sustain and revitalize commu-
24 nities impacted by the closure of fossil fuel
25 electric generation facilities;

1 (B) plan to support nonelectric applica-
2 tions, including supplying heat for—

- 3 (i) energy storage;
4 (ii) hydrogen or other liquid and gas-
5 eous fuel or chemical production;
6 (iii) industrial processes;
7 (iv) desalination technologies and
8 processes;
9 (v) isotope production;
10 (vi) district heating; and
11 (vii) other applications, as the Sec-
12 retary determines to be appropriate;

13 (C) plan to support supply chain infra-
14 structure, including manufacturing, associated
15 with advanced nuclear reactors or related tech-
16 nologies;

17 (D) have implemented or demonstrated the
18 ability to successfully implement workforce
19 training or retraining programs to train work-
20 ers to perform activities described in this sec-
21 tion; and

22 (E) plan to be cost competitive.

23 (e) COST SHARE.—Section 988 of the Energy Policy
24 Act of 2005 (42 U.S.C. 16352) shall apply to Federal fi-
25 nancial assistance provided under the program.

1 **SEC. 3. WORKFORCE CAPACITY BUILDING.**

2 Section 954(b) of the Energy Policy Act of 2005 (42
3 U.S.C. 16274(b)) is amended—

4 (1) in the subsection heading, by striking
5 “GRADUATE”;

6 (2) by striking “graduate” each place it ap-
7 pears;

8 (3) in paragraph (2)(A), by inserting “commu-
9 nity colleges, trade schools, registered apprenticeship
10 programs, pre-apprenticeship programs” after “uni-
11 versities,”;

12 (4) in paragraph (3), by striking “2021
13 through 2025” and inserting “2022 through 2026”;

14 (5) by redesignating paragraph (3) as para-
15 graph (4); and

16 (6) by inserting after paragraph (2) the fol-
17 lowing:

18 “(3) FOCUS AREAS.—In carrying out the sub-
19 program under this subsection, the Secretary may
20 implement traineeships in focus areas that, in the
21 determination of the Secretary, are necessary to sup-
22 port the nuclear energy sector in the United States,
23 including—

24 “(A) research and development;

25 “(B) construction and operation;

26 “(C) associated supply chains; and

1 “(D) workforce training and retraining to
2 support transitioning workforces.”.

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