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

Mr. MANCHIN (for himself and Mr. BARRASSO) introduced the following bill; which was read twice and referred to the Committee on

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.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the “Fission for the Future Act of 2021”.

SEC. 2. ADVANCED NUCLEAR TECHNOLOGIES FEDERAL FINANCIAL ASSISTANCE PROGRAM.

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

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

(3) **ELIGIBLE ENTITY.**—The term “eligible entity” means each of—

(A) a State;

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

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

(D) a unit of local government;

(E) an electric utility;

(F) a National Laboratory;

(G) an institution of higher education; and

(H) a private entity specializing in—

(i) advanced nuclear technology development;

(ii) nuclear supply chains; or
(iii) with respect to nuclear technologies and nonelectric applications of nuclear technologies, construction, project financing, contract structuring and risk allocation, or regulatory and licensing processes.

(4) **Institution of Higher Education.**—The term “institution of higher education” has the meaning given the term in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)).

(5) **National Laboratory.**—The term “National Laboratory” has the meaning given the term in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801).

(6) **Program.**—The term “program” means the program established under subsection (b)(1).

(7) **Secretary.**—The term “Secretary” means the Secretary of Energy.

(b) **Establishment of Program.**—

(1) **In General.**—The Secretary shall establish a program to provide Federal financial assistance to eligible entities to support the commercial planning, licensing, development, and construction, and construction planning, of—
(A) advanced nuclear reactors for the purpose of enhancing grid resilience, reliability, and security while also seeking to reduce emissions; or

(B) supply chain infrastructure associated with advanced nuclear reactors or related technologies.

(2) COMPETITIVE PROCEDURES.—To the maximum extent practicable, the Secretary shall carry out the program using a competitive, merit-based review process that is consistent with section 989 of the Energy Policy Act of 2005 (42 U.S.C. 16353).

(c) APPLICATIONS.—An eligible entity desiring Federal financial assistance under the program shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary may require.

(d) SELECTION.—

(1) IN GENERAL.—In selecting eligible entities to receive Federal financial assistance under the program, the Secretary shall give special consideration to projects—

(A) to develop or provide services to support—

(i) market analysis;
(ii) project structure models;

(iii) models for electricity market analysis;

(iv) nonelectric applications;

(v) financial models;

(vi) analysis, planning, and, as appropriate, management of environmental issues at fossil fuel electric generation facilities that are retired or scheduled to retire; and

(vii) site planning, review, testing, analysis, and preparation;

(B) to support licensing activities, permitting, and environmental impact studies; and

(C) for—

(i)(I) the construction planning of advanced nuclear reactors; and

(II) related—

(aa) planning and construction of transmission and distribution systems;

(bb) modernization of generation facilities;

(cc) development of microgrids; and

(dd) supply chain infrastructure;
(ii) infrastructure for nonelectric applications; and

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

(2) PRIORITY.—In selecting eligible entities to receive Federal financial assistance under the program, the Secretary shall give priority to eligible entities that—

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

(i) to reduce the cost of—

(I) infrastructure requirements;

(II) transmission requirements;

and

(III) licensing and permitting requirements;

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

(iii) to sustain and revitalize communities impacted by the closure of fossil fuel electric generation facilities;
(B) plan to support nonelectric applications, including supplying heat for—

(i) energy storage;

(ii) hydrogen or other liquid and gaseous fuel or chemical production;

(iii) industrial processes;

(iv) desalination technologies and processes;

(v) isotope production;

(vi) district heating; and

(vii) other applications, as the Secretary determines to be appropriate;

(C) plan to support supply chain infrastructure, including manufacturing, associated with advanced nuclear reactors or related technologies;

(D) have implemented or demonstrated the ability to successfully implement workforce training or retraining programs to train workers to perform activities described in this section; and

(E) plan to be cost competitive.

(e) Cost Share.—Section 988 of the Energy Policy Act of 2005 (42 U.S.C. 16352) shall apply to Federal financial assistance provided under the program.
SEC. 3. WORKFORCE CAPACITY BUILDING.

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

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

(2) by striking “graduate” each place it appears;

(3) in paragraph (2)(A), by inserting “community colleges, trade schools, registered apprenticeship programs, pre-apprenticeship programs” after “universities,”;

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

(5) by redesignating paragraph (3) as paragraph (4); and

(6) by inserting after paragraph (2) the following:

“(3) FOCUS AREAS.—In carrying out the subprogram under this subsection, the Secretary may implement traineeships in focus areas that, in the determination of the Secretary, are necessary to support the nuclear energy sector in the United States, including—

“(A) research and development;

“(B) construction and operation;

“(C) associated supply chains; and
“(D) workforce training and retraining to support transitioning workforces.”