

117TH CONGRESS
1ST SESSION

H. R. 1746

To facilitate the efficient licensing and deployment of advanced civilian nuclear technologies.

IN THE HOUSE OF REPRESENTATIVES

MARCH 10, 2021

Mr. HUDSON introduced the following bill; which was referred to the Committee on Energy and Commerce, and in addition to the Committee on Science, Space, and Technology, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

A BILL

To facilitate the efficient licensing and deployment of
advanced civilian nuclear technologies.

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 “Advanced Nuclear De-
5 ployment Act”.

1 **SEC. 2. ENABLING PREPARATIONS FOR ADVANCED NU-**
2 **CLEAR REACTOR DEMONSTRATIONS ON FED-**
3 **ERAL SITES.**

4 (a) IN GENERAL.—Section 102(b)(1)(B) of the Nu-
5 clear Energy Innovation and Modernization Act (42
6 U.S.C. 2215(b)(1)(B)) is amended by adding at the end
7 the following:

8 “(v) Costs for—

9 “(I) activities to review and ap-
10 prove or disapprove an application for
11 an early site permit (as defined in sec-
12 tion 52.1 of title 10, Code of Federal
13 Regulations (or any successor regula-
14 tion)) to demonstrate an advanced nu-
15 clear reactor on a Department of En-
16 ergy or Department of Defense site;
17 and

18 “(II) pre-application activities re-
19 lating to an early site permit (as so
20 defined) to demonstrate an advanced
21 nuclear reactor on a Department of
22 Energy or Department of Defense
23 site.”.

24 (b) EFFECTIVE DATE.—The amendments made by
25 subsection (a) shall take effect on October 1, 2021.

1 **SEC. 3. REGULATORY REQUIREMENTS FOR MICRO-REAC-**
2 **TORS.**

3 (a) MICRO-REACTOR LICENSING.—Not later than 3
4 years after the date of enactment of this Act, the Nuclear
5 Regulatory Commission (in this section referred to as the
6 “Commission”) shall—

7 (1) not later than 18 months after the date of
8 enactment of this Act, develop risk-informed and
9 performance-based strategies and guidance to license
10 and regulate micro-reactors pursuant to section 103
11 of the Atomic Energy Act of 1954 (42 U.S.C.
12 2133), including strategies and guidance for—

13 (A) staffing and operations;

14 (B) oversight and inspections;

15 (C) safeguards and security;

16 (D) emergency preparedness; and

17 (E) risk analysis methods, including alter-
18 natives to probabilistic risk assessments;

19 (F) quality assurance, including the use of
20 commercial nuclear quality standards in lieu of
21 the requirements of Appendix B of part 50 of
22 title 10, Code of Federal Regulations (or any
23 successor regulation);

24 (G) decommissioning funding assurance
25 methods that permit the use of design- and site-
26 specific cost estimates;

1 (H) the transportation of fueled micro-re-
2 actors;

3 (I) an annual fee structure that accounts
4 for the design and operational characteristics of
5 micro-reactors; and

6 (J) siting, including in relation to—

7 (i) the per capita siting limit de-
8 scribed in the policy issue paper on popu-
9 lation-related siting considerations for ad-
10 vanced reactors dated May 8, 2020, and
11 numbered SECY–20–0045;

12 (ii) licensing mobile deployment; and

13 (iii) environmental reviews; and

14 (2) implement, as appropriate, the strategies
15 and guidance developed under paragraph (1)—

16 (A) within the existing regulatory frame-
17 work;

18 (B) through the technology-inclusive, regu-
19 latory framework to be established under sec-
20 tion 103(a)(4) of the Nuclear Energy Innova-
21 tion and Modernization Act (42 U.S.C. 2133
22 note; Public Law 115–439); or

23 (C) through a pending or new rulemaking.

24 (b) REVIEW SCHEDULES.—The Commission shall es-
25 tablish and implement, by regulation, schedules that pro-

1 vide target time periods for the completion of review activi-
2 ties applicable to the licensing of micro-reactors to ensure
3 the completion of all such licensing actions by not later
4 than the date that is 2 years after the date on which an
5 application for such a license is accepted for docketing.

6 (c) CONSIDERATIONS.—In developing and imple-
7 menting strategies and guidance under subsection (a), the
8 Commission shall consider—

9 (1) the unique characteristics of micro-reactors,
10 such as characteristics relating to—

11 (A) physical size;

12 (B) design simplicity; and

13 (C) source term;

14 (2) opportunities to address redundancies and
15 inefficiencies;

16 (3) opportunities to consolidate review phases
17 and reduce transitions between review teams;

18 (4) opportunities to establish integrated review
19 teams to ensure continuity throughout the review
20 process; and

21 (5) other relevant considerations discussed in
22 the policy issue paper on policy and licensing consid-
23 erations related to micro-reactors dated October 6,
24 2020, and numbered SECY–20–0093.

1 (d) CONSULTATION.—In carrying out subsection (a),
2 the Commission shall consult with—

3 (1) the Secretary of Energy;

4 (2) the heads of other Federal agencies, as ap-
5 propriate;

6 (3) micro-reactor technology developers; and

7 (4) other stakeholders.

8 **SEC. 4. EXPEDITED SUBSEQUENT COMBINED LICENSES.**

9 (a) IN GENERAL.—In accordance with this section,
10 the Nuclear Regulatory Commission (referred to in this
11 section as the “Commission”) shall establish and carry out
12 an expedited procedure for issuing a combined license pur-
13 suant to section 103 of the Atomic Energy Act of 1954
14 (42 U.S.C. 2133).

15 (b) QUALIFICATIONS.—To qualify for the expedited
16 procedure under subsection (a), an applicant—

17 (1) shall submit a complete combined license
18 application for a new nuclear reactor based off a
19 previously licensed design;

20 (2) shall construct the new nuclear reactor on
21 or adjacent to a site on which an operating nuclear
22 reactor already exists or previously operated; and

23 (3) may not be subject to an order of the Com-
24 mission to modify, suspend, or revoke a license

1 under section 2.202 of title 10, Code of Federal
2 Regulations (or any successor regulation).

3 (c) EXPEDITED PROCEDURE.—With respect to a
4 combined license for which the applicant has satisfied the
5 requirements described in subsection (b), the Commission
6 shall—

7 (1) not later than 1 year after the application
8 is accepted for docketing—

9 (A) carry out an expedited environmental
10 review process; and

11 (B) issue a draft environmental impact
12 statement;

13 (2) not later than 18 months after the applica-
14 tion is accepted for docketing—

15 (A) complete the technical review process;
16 and

17 (B) issue a safety evaluation report and
18 final environmental impact statement;

19 (3) not later than 2 years after the application
20 is accepted for docketing, complete any necessary
21 public licensing hearings and related processes; and

22 (4) not later than 25 months after the applica-
23 tion is accepted for docketing, make a final decision
24 on whether to issue the combined license.

25 (d) PERFORMANCE AND REPORTING.—

1 (1) GOALS.—Not later than 90 days after the
2 date of enactment of this Act, the Chairman of the
3 Nuclear Regulatory Commission shall submit to the
4 Committee on Energy and Commerce of the House
5 of Representatives and the Committee on Environ-
6 ment and Public Works of the Senate recommenda-
7 tions for procedures that would further facilitate the
8 expedited licensing of new nuclear reactors.

9 (2) DELAYS IN ISSUANCE.—Not later than 30
10 days after the applicable deadline, the Executive Di-
11 rector for Operations of the Commission shall inform
12 the Commission of any failure to meet a deadline
13 under subsection (c).

14 (3) DELAYS IN ISSUANCE EXCEEDING 90
15 DAYS.—If any deadline under subsection (c) is not
16 met by the date that is 90 days after the applicable
17 date required under such subsection, the Commis-
18 sion shall submit to the Committee on Environment
19 and Public Works of the Senate and the Committee
20 on Energy and Commerce of the House of Rep-
21 resentatives a timely report describing the delay, in-
22 cluding a detailed explanation accounting for the
23 delay and a plan for timely completion of the appli-
24 cable action.

1 **SEC. 5. PILOT PROGRAM FOR NUCLEAR POWER PURCHASE**
2 **AGREEMENTS.**

3 (a) IN GENERAL.—Subtitle B of title VI of the En-
4 ergy Policy Act of 2005 (Public Law 109–58; 119 Stat.
5 782) is amended by adding at the end the following:

6 **“SEC. 640. LONG-TERM NUCLEAR POWER PURCHASE**
7 **AGREEMENT PILOT PROGRAM.**

8 “(a) ESTABLISHMENT.—Not later than 2026, the
9 Secretary shall establish a pilot program under which the
10 Secretary shall enter into long-term power purchase agree-
11 ments for power generated by commercial nuclear reac-
12 tors.

13 “(b) REQUIREMENTS.—In establishing the pilot pro-
14 gram under this section, the Secretary shall—

15 “(1) consult with the heads of other Federal de-
16 partments and agencies that may benefit from pur-
17 chasing nuclear power for a period of longer than 10
18 years, including the Secretary of Defense; and

19 “(2) not later than December 31, 2026, enter
20 into at least 1 agreement to purchase power from a
21 commercial nuclear reactor that receives a license
22 from the Nuclear Regulatory Commission after Jan-
23 uary 1, 2022.

24 “(c) PERIOD OF AGREEMENT.—Notwithstanding any
25 other provision of law, an agreement entered into pursuant
26 to subsection (b)(2) to purchase power from a commercial

1 nuclear reactor shall be made for a period of at least 10
 2 years and not more than 40 years.

3 “(d) PRIORITY.—In carrying out this section, the
 4 Secretary shall prioritize entering into long-term power
 5 purchase agreements for power generated by first-of-a-
 6 kind or early deployment commercial nuclear reactors that
 7 will provide reliable and resilient power—

8 “(1) to high-value assets for national security
 9 purposes; or

10 “(2) for other purposes that the Secretary de-
 11 termines are in the national interest, including for
 12 remote off-grid scenarios or grid-connected scenarios
 13 that provide capabilities commonly known as
 14 ‘islanding power capabilities’ during an emergency.

15 “(e) RATES.—A long-term power purchase agreement
 16 entered into under this section may not be at a rate that
 17 is higher than the average market rate, unless the agree-
 18 ment is for power generated by a commercial nuclear reac-
 19 tor described in subsection (d).”.

20 (b) TABLE OF CONTENTS.—The table of contents of
 21 the Energy Policy Act of 2005 (Public Law 109–58; 119
 22 Stat. 594) is amended by inserting after the item relating
 23 to section 639 the following:

“Sec. 640. Long-term nuclear power purchase agreement pilot program.”.

