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

IN THE HOUSE OF REPRESENTATIVES

Mr. HUDSON introduced the following bill; which was referred to the Committee on ____________________

A BILL

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

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

SECTION 1. SHORT TITLE.

This Act may be cited as the “Advanced Nuclear De-
ployment Act”.

VerDate Nov 24 2008 12:05 Apr 14, 2023 Jkt 000000 PO 00000 Frm 00001 Fmt 6652 Sfmt 6201 C:\USERS\MMCROTTY\APPDATA\ROAMING\SOFTQUAD\XM ETAL\11.0\GEN\C\HUDSON
April 14, 2023 (12:05 p.m.)
G:\M\18\HUDSON\HUDSON_010.XML
SEC. 2. ENABLING PREPARATIONS FOR ADVANCED NUCLEAR REACTOR DEMONSTRATIONS ON FEDERAL SITES.

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

“(v) Costs for—

“(I) activities to review and approve or disapprove an application for an early site permit (as defined in section 52.1 of title 10, Code of Federal Regulations (or any successor regulation)) to demonstrate an advanced nuclear reactor on a Department of Energy or Department of Defense site; and

“(II) pre-application activities relating to an early site permit (as so defined) to demonstrate an advanced nuclear reactor on a Department of Energy or Department of Defense site.”.

(b) EFFECTIVE DATE.—The amendments made by subsection (a) shall take effect on October 1, 2023.
SEC. 3. REGULATORY REQUIREMENTS FOR MICRO-REACTORS.

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

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

(A) staffing and operations;

(B) oversight and inspections;

(C) safeguards and security;

(D) emergency preparedness; and

(E) risk analysis methods, including alternatives to probabilistic risk assessments;

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

(G) decommissioning funding assurance methods that permit the use of design- and site-specific cost estimates;
(H) the transportation of fueled micro-reactors;

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

(J) siting, including in relation to—

   (i) the per capita siting limit described in the policy issue paper on population-related siting considerations for advanced reactors dated May 8, 2020, and numbered SECY–20–0045;

   (ii) licensing mobile deployment; and

   (iii) environmental reviews; and

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

   (A) within the existing regulatory framework;

   (B) through the technology-inclusive, regulatory framework to be established under section 103(a)(4) of the Nuclear Energy Innovation and Modernization Act (42 U.S.C. 2133 note; Public Law 115–439); or

   (C) through a pending or new rulemaking.

(b) REVIEW SCHEDULES.—The Commission shall establish and implement, by regulation, schedules that pro-
vide target time periods for the completion of review activities applicable to the licensing of micro-reactors to ensure the completion of all such licensing actions by not later than the date that is 2 years after the date on which an application for such a license is accepted for docketing.

(c) CONSIDERATIONS.—In developing and implementing strategies and guidance under subsection (a), the Commission shall consider—

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

(A) physical size;

(B) design simplicity; and

(C) source term;

(2) opportunities to address redundancies and inefficiencies;

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

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

(5) other relevant considerations discussed in the policy issue paper on policy and licensing considerations related to micro-reactors dated October 6, 2020, and numbered SECY–20–0093.
(d) CONSULTATION.—In carrying out subsection (a), the Commission shall consult with—

(1) the Secretary of Energy;

(2) the heads of other Federal agencies, as appropriate;

(3) micro-reactor technology developers; and

(4) other stakeholders.

SEC. 4. EXPEDITED SUBSEQUENT COMBINED LICENSES.

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

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

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

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

(3) may not be subject to an order of the Commission to modify, suspend, or revoke a license

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

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

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

(B) issue a draft environmental impact statement;

(2) not later than 18 months after the application is accepted for docketing—

(A) complete the technical review process; and

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

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

(4) not later than 25 months after the application is accepted for docketing, make a final decision on whether to issue the combined license.

(d) PERFORMANCE AND REPORTING.—
(1) GOALS.—Not later than 90 days after the date of enactment of this Act, the Chairman of the Nuclear Regulatory Commission shall submit to the Committee on Energy and Commerce of the House of Representatives and the Committee on Environment and Public Works of the Senate recommendations for procedures that would further facilitate the expedited licensing of new nuclear reactors.

(2) DELAYS IN ISSUANCE.—Not later than 30 days after the applicable deadline, the Executive Director for Operations of the Commission shall inform the Commission of any failure to meet a deadline under subsection (e).

(3) DELAYS IN ISSUANCE EXCEEDING 90 DAYS.—If any deadline under subsection (e) is not met by the date that is 90 days after the applicable date required under such subsection, the Commission shall submit to the Committee on Environment and Public Works of the Senate and the Committee on Energy and Commerce of the House of Representatives a timely report describing the delay, including a detailed explanation accounting for the delay and a plan for timely completion of the applicable action.
SEC. 5. PILOT PROGRAM FOR NUCLEAR POWER PURCHASE AGREEMENTS.

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

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

“(a) ESTABLISHMENT.—Not later than 2026, the Secretary shall establish a pilot program under which the Secretary shall enter into long-term power purchase agreements for power generated by commercial nuclear reactors.

“(b) REQUIREMENTS.—In establishing the pilot program under this section, the Secretary shall—

“(1) consult with the heads of other Federal departments and agencies that may benefit from purchasing nuclear power for a period of longer than 10 years, including the Secretary of Defense; and

“(2) not later than December 31, 2028, enter into at least 1 agreement to purchase power from a commercial nuclear reactor that receives a license from the Nuclear Regulatory Commission after January 1, 2024.

“(c) PERIOD OF AGREEMENT.—Notwithstanding any other provision of law, an agreement entered into pursuant to subsection (b)(2) to purchase power from a commercial
nuclear reactor shall be made for a period of at least 10 years and not more than 40 years.

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

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

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

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

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

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