To require the Secretary of Energy to establish and carry out a program to support the availability of HA–LEU for domestic commercial use, 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 “Advanced Nuclear Fuel Availability Act”.

SEC. 2. PROGRAM.

(a) ESTABLISHMENT.—The Secretary shall establish and carry out, through the Office of Nuclear Energy, a
program to support the availability of HA–LEU for domestic commercial use.

(b) PROGRAM ELEMENTS.—In carrying out the program under subsection (a), the Secretary—

(1) may provide financial assistance to assist commercial entities to design and license transportation packages for HA–LEU, including canisters for metal, gas, and other HA–LEU compositions;

(2) shall, to the extent practicable—

(A) by January 1, 2022, have commercial entities submit such transportation package designs to the Commission for certification by the Commission under part 71 of title 10, Code of Federal Regulations; and

(B) encourage the Commission to have such transportation package designs so certified by the Commission by January 1, 2024;

(3) not later than January 1, 2021, shall submit to Congress a report on the Department’s uranium inventory that may be available to be processed to HA–LEU for purposes of such program, which may not include any uranium allocated by the Secretary for use in support of the atomic energy defense activities of the National Nuclear Security Administration;
(4) not later than 1 year after the date of enactment of this Act, and biennially thereafter through September 30, 2026, shall conduct a survey of stakeholders to estimate the quantity of HA–LEU necessary for domestic commercial use for each of the 5 subsequent years;

(5) shall assess options available for the Secretary to acquire HA–LEU for such program, including an assessment, for each such option, of the cost and amount of time required;

(6) shall establish a consortium, which may include entities involved in any stage of the nuclear fuel cycle, to partner with the Department to support the availability of HA–LEU for domestic commercial use, including by—

(A) providing information to the Secretary for purposes of surveys conducted under paragraph (4); and

(B) purchasing HA–LEU made available to members of the consortium by the Secretary under the program;

(7) shall, prior to acquiring HA–LEU under paragraph (8), in coordination with the consortium established pursuant to paragraph (6), develop a schedule for cost recovery of HA–LEU made avail-
able to members of the consortium pursuant to paragraph (8);

(8) may, beginning not later than 3 years after the establishment of a consortium under paragraph (6), acquire HA–LEU, in order, to the extent practicable, to make such HA–LEU available to members of the consortium beginning not later than January 1, 2026, in amounts that are consistent, to the extent practicable, with the quantities estimated under the surveys conducted under paragraph (4); and

(9) shall develop, in consultation with the Commission, criticality benchmark data to assist the Commission in—

(A) the licensing and regulation of category II spent nuclear material fuel fabrication and enrichment facilities under part 70 of title 10, Code of Federal Regulations; and

(B) certification of transportation packages under part 71 of title 10, Code of Federal Regulations.

(c) APPLICABILITY OF USEC PRIVATIZATION ACT.—The requirements of subparagraphs (A) and (C) of section 3112(d)(2) of the USEC Privatization Act (42 U.S.C. 2297h–10(d)(2)) shall apply to a sale or transfer of HA–
LEU by the Secretary to a member of the consortium under this section.

(d) FUNDING.—

(1) TRANSPORTATION PACKAGE DESIGN.—

(A) COST SHARE.—The Secretary shall ensure that not less than 20 percent of the costs of design and license activities carried out pursuant to subsection (b)(1) are paid by a non-Federal entity.

(B) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out subsection (b)(1)—

(i) $1,500,000 for fiscal year 2020;

(ii) $1,500,000 for fiscal year 2021;

and

(iii) $1,500,000 for fiscal year 2022.

(2) DOE ACQUISITION OF HA–LEU.—The Secretary may not make commitments under this section (including cooperative agreements (used in accordance with section 6305 of title 31, United States Code), purchase agreements, guarantees, leases, service contracts, or any other type of commitment) for the purchase or other acquisition of HA–LEU unless funds are specifically provided for such purposes in advance in subsequent appropriations Acts,
and only to the extent that the full extent of anticipated costs stemming from such commitments is recorded as an obligation up front and in full at the time it is made.

(3) OTHER COSTS.—Except as otherwise provided in this subsection, in carrying out this section, the Secretary shall use amounts otherwise authorized to be appropriated to the Secretary.

(e) SUNSET.—The authority of the Secretary to carry out the program under this section shall expire on September 30, 2034.

SEC. 3. REPORT TO CONGRESS.

Not later than 12 months after the date of enactment of this Act, the Commission shall submit to Congress a report that includes—

(1) identification of updates to regulations, certifications, and other regulatory policies that the Commission determines are necessary in order for HA–LEU to be commercially available, including—

(A) guidance for material control and accountability of category II special nuclear material;

(B) certifications relating to transportation packaging for HA–LEU; and
(C) licensing of enrichment, conversion, and fuel fabrication facilities for HA–LEU, and associated physical security plans for such facilities;

(2) a description of such updates; and

(3) a timeline to complete such updates.

SEC. 4. DEFINITIONS.

In this Act:

(1) COMMISSION.—The term “Commission” means the Nuclear Regulatory Commission.

(2) DEPARTMENT.—The term “Department” means Department of Energy.

(3) HA–LEU.—The term “HA–LEU” means high-assay low-enriched uranium.

(4) HIGH-ASSAY LOW-ENRICHED URANIUM.—The term “high-assay low-enriched uranium” means uranium having an assay greater than 5.0 percent and less than 20.0 percent enrichment of the uranium-235 isotope.

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