

AMENDMENT TO H.R. 1042
OFFERED BY M____.

Strike section 3 and insert the following:

1 SEC. 3. U.S. NUCLEAR FUEL SECURITY INITIATIVE.

2 (a) SENSE OF CONGRESS.—It is the sense of Con-
3 gress that—

4 (1) the Department should—

5 (A) prioritize activities to increase domes-
6 tic production of low-enriched uranium; and

7 (B) accelerate efforts to establish a domes-
8 tic high-assay, low-enriched uranium enrich-
9 ment capability; and

10 (2) if domestic enrichment of high-assay, low-
11 enriched uranium will not be commercially available
12 at the scale needed in time to meet the needs of the
13 advanced nuclear reactor demonstration projects of
14 the Department, the Secretary shall consider and
15 implement, as necessary—

16 (A) all viable options to make high-assay,
17 low-enriched uranium produced from inven-
18 tories owned by the Department available in a
19 manner that is sufficient to maximize the po-
20 tential for the Department to meet the needs

1 and schedules of advanced nuclear reactor de-
2 velopers, without impacting existing Depart-
3 ment missions, until such time that commercial
4 enrichment and deconversion capability for
5 high-assay, low-enriched uranium exists at a
6 scale sufficient to meet future needs; and

7 (B) all viable options for partnering with
8 countries that are allies or partners of the
9 United States to meet those needs and sched-
10 ules until that time.

11 (b) OBJECTIVES.—The objectives of this section
12 are—

13 (1) to expeditiously increase domestic produc-
14 tion of low-enriched uranium;

15 (2) to expeditiously increase domestic produc-
16 tion of high-assay, low-enriched uranium by an an-
17 nual quantity, and in such form, determined by the
18 Secretary to be sufficient to meet the needs of—

19 (A) advanced nuclear reactor developers;
20 and

21 (B) the consortium;

22 (3) to ensure the availability of domestically
23 produced, converted, and enriched uranium in a
24 quantity determined by the Secretary, in consulta-
25 tion with U.S. nuclear energy companies, to be suffi-

1 cient to address a reasonably anticipated supply dis-
2 ruption;

3 (4) to address gaps and deficiencies in the do-
4 mestic production, conversion, enrichment,
5 deconversion, and reduction of uranium by
6 partnering with countries that are allies or partners
7 of the United States if domestic options are not
8 practicable;

9 (5) to ensure that, in the event of a supply dis-
10 ruption in the nuclear fuel market, a reserve of nu-
11 clear fuels is available to serve as a backup supply
12 to support the nuclear nonproliferation and civil nu-
13 clear energy objectives of the Department;

14 (6) to support enrichment, deconversion, and
15 reduction technology deployed in the United States;
16 and

17 (7) to ensure that, until such time that domes-
18 tic enrichment and deconversion of high-assay, low-
19 enriched uranium is commercially available at the
20 scale needed to meet the needs of advanced nuclear
21 reactor developers, the Secretary considers and im-
22 plements, as necessary—

23 (A) all viable options to make high-assay,
24 low-enriched uranium produced from inven-
25 tories owned by the Department available in a

1 manner that is sufficient to maximize the po-
2 tential for the Department to meet the needs
3 and schedules of advanced nuclear reactor de-
4 velopers; and

5 (B) all viable options for partnering with
6 countries that are allies or partners of the
7 United States to meet those needs and sched-
8 ules.

9 (c) DEFINITIONS.—In this section:

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

14 (2) ASSOCIATED ENTITY.—The term “associ-
15 ated entity” means an entity that—

16 (A) is owned, controlled, or dominated
17 by—

18 (i) the government of a country that
19 is an ally or partner of the United States;
20 or

21 (ii) an associated individual; or

22 (B) is organized under the laws of, or oth-
23 erwise subject to the jurisdiction of, a country
24 that is an ally or partner of the United States,

1 including a corporation that is incorporated in
2 such a country.

3 (3) ASSOCIATED INDIVIDUAL.—The term “asso-
4 ciated individual” means an alien who is a national
5 of a country that is an ally or partner of the United
6 States.

7 (4) CONSORTIUM.—The term “consortium”
8 means the consortium established under section
9 2001(a)(2)(F) of the Energy Act of 2020 (42 U.S.C.
10 16281(a)(2)(F)).

11 (5) DEPARTMENT.—The term “Department”
12 means the Department of Energy.

13 (6) HIGH-ASSAY, LOW-ENRICHED URANIUM;
14 HALEU.—The term “high-assay, low-enriched ura-
15 nium” or “HALEU” means high-assay low-enriched
16 uranium (as defined in section 2001(d) of the En-
17 ergy Act of 2020 (42 U.S.C. 16281(d))).

18 (7) LOW-ENRICHED URANIUM; LEU.—The term
19 “low-enriched uranium” or “LEU” means each of—

20 (A) low-enriched uranium (as defined in
21 section 3102 of the USEC Privatization Act
22 (42 U.S.C. 2297h)); and

23 (B) low-enriched uranium (as defined in
24 section 3112A(a) of that Act (42 U.S.C.
25 2297h–10a(a))).

1 (8) PROGRAMS.—The term “Programs”
2 means—

3 (A) the Nuclear Fuel Security Program es-
4 tablished under subsection (d)(1);

5 (B) the American Assured Fuel Supply
6 Program of the Department; and

7 (C) the HALEU for Advanced Nuclear Re-
8 actor Demonstration Projects Program estab-
9 lished under subsection (d)(3).

10 (9) SECRETARY.—The term “Secretary” means
11 the Secretary of Energy.

12 (10) U.S. NUCLEAR ENERGY COMPANY.—The
13 term “U.S. nuclear energy company” means a com-
14 pany that—

15 (A) is organized under the laws of, or oth-
16 erwise subject to the jurisdiction of, the United
17 States; and

18 (B) is involved in the nuclear energy indus-
19 try.

20 (d) ESTABLISHMENT AND EXPANSION OF PRO-
21 GRAMS.—The Secretary, consistent with the objectives de-
22 scribed in subsection (b), shall—

23 (1) establish a program, to be known as the
24 “Nuclear Fuel Security Program”, to increase the

1 quantity of LEU and HALEU produced by U.S. nu-
2 clear energy companies;

3 (2) expand the American Assured Fuel Supply
4 Program of the Department to ensure the avail-
5 ability of domestically produced, converted, and en-
6 riched uranium in the event of a supply disruption;
7 and

8 (3) establish a program, to be known as the
9 “HALEU for Advanced Nuclear Reactor Dem-
10 onstration Projects Program”—

11 (A) to maximize the potential for the De-
12 partment to meet the needs and schedules of
13 advanced nuclear reactor developers until such
14 time that commercial enrichment and
15 deconversion capability for HALEU exists in
16 the United States at a scale sufficient to meet
17 future needs; and

18 (B) where practicable, to partner with
19 countries that are allies or partners of the
20 United States to meet those needs and sched-
21 ules until that time.

22 (e) NUCLEAR FUEL SECURITY PROGRAM.—

23 (1) IN GENERAL.—In carrying out the Nuclear
24 Fuel Security Program, the Secretary—

25 (A) shall—

1 (i) not later than 180 days after the
2 date of enactment of this Act, enter into 2
3 or more contracts to begin acquiring not
4 less than 100 metric tons per year of LEU
5 by December 31, 2026 (or the earliest
6 operationally feasible date thereafter), to
7 ensure diversity of supply in domestic ura-
8 nium mining, conversion, enrichment, and
9 deconversion capacity and technologies, in-
10 cluding new capacity, among U.S. nuclear
11 energy companies;

12 (ii) not later than 180 days after the
13 date of enactment of this Act, enter into 2
14 or more contracts with members of the
15 consortium to begin acquiring not less than
16 20 metric tons per year of HALEU by De-
17 cember 31, 2027 (or the earliest operation-
18 ally feasible date thereafter), from U.S.
19 nuclear energy companies;

20 (iii) utilize only uranium produced,
21 converted, enriched, deconverted, and re-
22 duced in—

23 (I) the United States; or

1 (II) if domestic options are not
2 practicable, a country that is an ally
3 or partner of the United States; and
4 (iv) to the maximum extent prac-
5 ticable, ensure that the use of domestic
6 uranium utilized as a result of that pro-
7 gram does not negatively affect the eco-
8 nomic operation of nuclear reactors in the
9 United States; and

10 (B)(i) may not make commitments under
11 this subsection (including cooperative agree-
12 ments (used in accordance with section 6305 of
13 title 31, United States Code), purchase agree-
14 ments, guarantees, leases, service contracts, or
15 any other type of commitment) for the purchase
16 or other acquisition of HALEU or LEU un-
17 less—

18 (I) funds are specifically provided for
19 those purposes in advance in appropria-
20 tions Acts enacted after the date of enact-
21 ment of this Act; or

22 (II) the commitment is funded en-
23 tirely by funds made available to the Sec-
24 retary from the account described in sub-
25 section (i)(2)(B); and

1 (ii) may make a commitment described in
2 clause (i) only—

3 (I) if the full extent of the anticipated
4 costs stemming from the commitment is
5 recorded as an obligation at the time that
6 the commitment is made; and

7 (II) to the extent of that up-front ob-
8 ligation recorded in full at that time.

9 (2) CONSIDERATIONS.—In carrying out para-
10 graph (1)(A)(ii), the Secretary shall consider and, if
11 appropriate, implement—

12 (A) options to ensure the quickest avail-
13 ability of commercially enriched HALEU, in-
14 cluding—

15 (i) partnerships between 2 or more
16 commercial enrichers; and

17 (ii) utilization of up to 10-percent en-
18 riched uranium as feedstock in demonstra-
19 tion-scale or commercial HALEU enrich-
20 ment facilities;

21 (B) options to partner with countries that
22 are allies or partners of the United States to
23 provide LEU and HALEU for commercial pur-
24 poses;

1 (C) options that provide for an array of
2 HALEU—

3 (i) enrichment levels;

4 (ii) output levels to meet demand; and

5 (iii) fuel forms, including uranium
6 metal and oxide; and

7 (D) options—

8 (i) to replenish, as necessary, Depart-
9 ment stockpiles of uranium that was in-
10 tended to be downblended for other pur-
11 poses, but was instead used in carrying out
12 activities under the HALEU for Advanced
13 Nuclear Reactor Demonstration Projects
14 Program;

15 (ii) to continue supplying HALEU to
16 meet the needs of the recipients of an
17 award made pursuant to the funding op-
18 portunity announcement of the Depart-
19 ment numbered DE-FOA-0002271 for
20 Pathway 1, Advanced Reactor Demonstra-
21 tions; and

22 (iii) to make HALEU available to
23 other advanced nuclear reactor developers
24 and other end-users.

1 (3) AVOIDANCE OF MARKET DISRUPTIONS.—In
2 carrying out the Nuclear Fuel Security Program, the
3 Secretary, to the extent practicable and consistent
4 with the purposes of that program, shall not disrupt
5 or replace market mechanisms by competing with
6 U.S. nuclear energy companies.

7 (f) EXPANSION OF THE AMERICAN ASSURED FUEL
8 SUPPLY PROGRAM.—The Secretary, in consultation with
9 U.S. nuclear energy companies, shall—

10 (1) expand the American Assured Fuel Supply
11 Program of the Department by merging the oper-
12 ations of the Uranium Reserve Program of the De-
13 partment with the American Assured Fuel Supply
14 Program; and

15 (2) in carrying out the American Assured Fuel
16 Supply Program of the Department, as expanded
17 under paragraph (1)—

18 (A) maintain, replenish, diversify, or in-
19 crease the quantity of uranium made available
20 by that program in a manner determined by the
21 Secretary to be consistent with the purposes of
22 that program and the objectives described in
23 subsection (b);

24 (B) utilize only uranium produced, con-
25 verted, enriched, deconverted, and reduced in—

1 (i) the United States; or

2 (ii) if domestic options are not prac-
3 ticable, a country that is an ally or partner
4 of the United States;

5 (C) make uranium available from the
6 American Assured Fuel Supply, subject to
7 terms and conditions determined by the Sec-
8 retary to be reasonable and appropriate;

9 (D) refill and expand the supply of ura-
10 nium in the American Assured Fuel Supply, in-
11 cluding by maintaining a limited reserve of ura-
12 nium to address a potential event in which a
13 domestic or foreign recipient of uranium experi-
14 ences a supply disruption for which uranium
15 cannot be obtained through normal market
16 mechanisms or under normal market conditions;
17 and

18 (E) take other actions that the Secretary
19 determines to be necessary or appropriate to
20 address the purposes of that program and the
21 objectives described in subsection (b).

22 (g) HALEU FOR ADVANCED NUCLEAR REACTOR
23 DEMONSTRATION PROJECTS PROGRAM.—

24 (1) ACTIVITIES.—On enactment of this Act, the
25 Secretary shall immediately accelerate and, as nec-

1 essary, initiate activities to make available from in-
2 ventories or stockpiles owned by the Department and
3 made available to the consortium, HALEU for use
4 in advanced nuclear reactors that cannot operate on
5 uranium with lower enrichment levels or on alternate
6 fuels, with priority given to the awards made pursu-
7 ant to the funding opportunity announcement of the
8 Department numbered DE-FOA-0002271 for Path-
9 way 1, Advanced Reactor Demonstrations, with ad-
10 ditional HALEU to be made available to other ad-
11 vanced nuclear reactor developers, as the Secretary
12 determines to be appropriate.

13 (2) QUANTITY.—In carrying out activities
14 under this subsection, the Secretary shall consider
15 and implement, as necessary, all viable options to
16 make HALEU available in quantities and forms suf-
17 ficient to maximize the potential for the Department
18 to meet the needs and schedules of advanced nuclear
19 reactor developers, including by seeking to make
20 available—

21 (A) by September 30, 2024, not less than
22 3 metric tons of HALEU;

23 (B) by December 31, 2025, not less than
24 an additional 8 metric tons of HALEU; and

1 (C) by June 30, 2026, not less than an ad-
2 ditional 10 metric tons of HALEU.

3 (3) FACTORS FOR CONSIDERATION.—In car-
4 rying out activities under this subsection, the Sec-
5 retary shall take into consideration—

6 (A) options for providing HALEU from a
7 stockpile of uranium owned by the Department,
8 including—

9 (i) uranium that has been declared ex-
10 cess to national security needs during or
11 prior to fiscal year 2022;

12 (ii) uranium that—

13 (I) directly meets the needs of
14 advanced nuclear reactor developers;
15 but

16 (II) has been previously used or
17 fabricated for another purpose;

18 (iii) uranium that can meet the needs
19 of advanced nuclear reactor developers
20 after removing radioactive or other con-
21 taminants that resulted from previous use
22 or fabrication of the fuel for research, de-
23 velopment, demonstration, or deployment
24 activities of the Department, including ac-
25 tivities that reduce the environmental li-

1 ability of the Department by accelerating
2 the processing of uranium from stockpiles
3 designated as waste;

4 (iv) uranium from a high-enriched
5 uranium stockpile, which can be blended
6 with lower assay uranium to become
7 HALEU to meet the needs of advanced
8 nuclear reactor developers; and

9 (v) uranium from stockpiles intended
10 for other purposes (excluding stockpiles in-
11 tended for national security needs), but for
12 which uranium could be swapped or re-
13 placed in time in such a manner that
14 would not negatively impact the missions
15 of the Department;

16 (B) options for expanding, or establishing
17 new, capabilities or infrastructure to support
18 the processing of uranium from Department in-
19 ventories;

20 (C) options for accelerating the availability
21 of HALEU from HALEU enrichment dem-
22 onstration projects of the Department;

23 (D) options for providing HALEU from
24 domestically enriched HALEU procured by the
25 Department through a competitive process pur-

1 suant to the Nuclear Fuel Security Program es-
2 tablished under subsection (d)(1);

3 (E) options to replenish, as needed, De-
4 partment stockpiles of uranium made available
5 pursuant to subparagraph (A) with domestically
6 enriched HALEU procured by the Department
7 through a competitive process pursuant to the
8 Nuclear Fuel Security Program established
9 under subsection (d)(1); and

10 (F) options that combine 1 or more of the
11 approaches described in subparagraphs (A)
12 through (E) to meet the deadlines described in
13 paragraph (2).

14 (4) LIMITATIONS.—

15 (A) CERTAIN SERVICES.—The Secretary
16 shall not barter or otherwise sell or transfer
17 uranium in any form in exchange for services
18 relating to—

19 (i) the final disposition of radioactive
20 waste from uranium that is the subject of
21 a contract for sale, resale, transfer, or
22 lease under this subsection; or

23 (ii) environmental cleanup activities.

1 (B) CERTAIN COMMITMENTS.—In carrying
2 out activities under this subsection, the Sec-
3 retary—

4 (i) may not make commitments under
5 this subsection (including cooperative
6 agreements (used in accordance with sec-
7 tion 6305 of title 31, United States Code),
8 purchase agreements, guarantees, leases,
9 service contracts, or any other type of com-
10 mitment) for the purchase or other acquisi-
11 tion of HALEU or LEU unless—

12 (I) funds are specifically provided
13 for those purposes in advance in ap-
14 propriations Acts enacted after the
15 date of enactment of this Act; or

16 (II) the commitment is funded
17 entirely by funds made available to
18 the Secretary from the account de-
19 scribed in subsection (i)(2)(B); and

20 (ii) may make a commitment de-
21 scribed in clause (i) only—

22 (I) if the full extent of the antici-
23 pated costs stemming from the com-
24 mitment is recorded as an obligation

1 at the time that the commitment is
2 made; and
3 (II) to the extent of that up-front
4 obligation recorded in full at that
5 time.

6 (5) SUNSET.—The authority of the Secretary to
7 carry out activities under this subsection shall termi-
8 nate on the date on which the Secretary notifies
9 Congress that the HALEU needs of advanced nu-
10 clear reactor developers can be fully met by commer-
11 cial HALEU suppliers in the United States, as de-
12 termined by the Secretary, in consultation with U.S.
13 nuclear energy companies.

14 (h) DOMESTIC SOURCING CONSIDERATIONS.—

15 (1) IN GENERAL.—Except as provided in para-
16 graph (2), the Secretary may only carry out an ac-
17 tivity in connection with 1 or more of the Programs
18 if—

19 (A) the activity promotes manufacturing in
20 the United States associated with uranium sup-
21 ply chains; or

22 (B) the activity relies on resources, mate-
23 rials, or equipment developed or produced—

24 (i) in the United States; or

1 (ii) in a country that is an ally or
2 partner of the United States by—

3 (I) the government of that coun-
4 try;

5 (II) an associated entity; or

6 (III) a U.S. nuclear energy com-
7 pany.

8 (2) WAIVER.—The Secretary may waive the re-
9 quirements of paragraph (1) with respect to an ac-
10 tivity if the Secretary determines a waiver to be nec-
11 essary to achieve 1 or more of the objectives de-
12 scribed in subsection (b).

13 (i) REASONABLE COMPENSATION.—

14 (1) IN GENERAL.—In carrying out activities
15 under this section, the Secretary shall ensure that
16 any LEU and HALEU made available by the Sec-
17 retary under 1 or more of the Programs is subject
18 to reasonable compensation, taking into account the
19 fair market value of the LEU or HALEU and the
20 purposes of this section.

21 (2) AVAILABILITY OF CERTAIN FUNDS.—

22 (A) IN GENERAL.—Notwithstanding sec-
23 tion 3302(b) of title 31, United States Code,
24 revenues received by the Secretary from the
25 sale or transfer of fuel feed material acquired

1 by the Secretary pursuant to a contract entered
2 into under clause (i) or (ii) of subsection
3 (e)(1)(A) shall—

4 (i) be deposited in the account de-
5 scribed in subparagraph (B);

6 (ii) be available to the Secretary for
7 carrying out the purposes of this section,
8 to reduce the need for further appropria-
9 tions for those purposes; and

10 (iii) remain available until expended.

11 (B) REVOLVING FUND.—There is estab-
12 lished in the Treasury an account into which
13 the revenues described in subparagraph (A)
14 shall be—

15 (i) deposited in accordance with clause
16 (i) of that subparagraph; and

17 (ii) made available in accordance with
18 clauses (ii) and (iii) of that subparagraph.

19 (j) NUCLEAR REGULATORY COMMISSION.—The Nu-
20 clear Regulatory Commission shall prioritize and expedite
21 consideration of any action related to the Programs to the
22 extent permitted under the Atomic Energy Act of 1954
23 (42 U.S.C. 2011 et seq.) and related statutes.

24 (k) USEC PRIVATIZATION ACT.—The requirements
25 of section 3112(d)(2) of the USEC Privatization Act (42

1 U.S.C. 2297h–10(d)(2)) shall not apply to activities re-
2 lated to the Programs.

3 (l) NATIONAL SECURITY NEEDS.—The Secretary
4 shall only make available to a member of the consortium
5 under this section for commercial use or use in a dem-
6 onstration project material that the President has deter-
7 mined is not necessary for national security needs, subject
8 to the condition that the material made available shall not
9 include any material that the Secretary determines to be
10 necessary for the National Nuclear Security Administra-
11 tion or any critical mission of the Department.

12 (m) INTERNATIONAL AGREEMENTS.—This section
13 shall be applied in a manner consistent with the obliga-
14 tions of the United States under international agreements.

