

118TH CONGRESS  
1ST SESSION

# H. R. 5718

To require the Secretary of Energy to establish a Nuclear Fuel Security Program, expand the American Assured Fuel Supply Program, and for other purposes.

---

## IN THE HOUSE OF REPRESENTATIVES

SEPTEMBER 26, 2023

Mr. LATTA (for himself, Mr. CLYBURN, Mr. BALDERSON, and Ms. KUSTER) 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 require the Secretary of Energy to establish a Nuclear Fuel Security Program, expand the American Assured Fuel Supply Program, and for other purposes.

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 “Nuclear Fuel Security  
5 Act of 2023”.

1 **SEC. 2. 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) support increased domestic production  
6 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  
21 and schedules of advanced nuclear reactor de-  
22 velopers, without impacting existing Depart-  
23 ment missions, until such time that commercial  
24 enrichment and deconversion capability for  
25 high-assay, low-enriched uranium exists at a  
26 scale sufficient to meet future needs; and

1 (B) all viable options for partnering with  
2 countries that are allies or partners of the  
3 United States to meet those needs and sched-  
4 ules until that time.

5 (b) OBJECTIVES.—The objectives of this section  
6 are—

7 (1) to support domestic production of low-en-  
8 riched uranium;

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

13 (A) advanced nuclear reactor developers;  
14 and

15 (B) the consortium;

16 (3) to ensure the availability of domestically  
17 produced, converted, enriched, deconverted, and re-  
18 duced uranium in a quantity determined by the Sec-  
19 retary, in consultation with U.S. nuclear energy  
20 companies, to be sufficient to address a reasonably  
21 anticipated supply disruption;

22 (4) to address gaps and deficiencies in the do-  
23 mestic production, conversion, enrichment,  
24 deconversion, and reduction of uranium by  
25 partnering with countries that are allies or partners

1 of the United States if domestic options are not  
2 practicable;

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

8 (6) to support enrichment, deconversion, and  
9 reduction technology deployed in the United States;  
10 and

11 (7) to ensure that, until such time that domes-  
12 tic enrichment and deconversion of high-assay, low-  
13 enriched uranium is commercially available at the  
14 scale needed to meet the needs of advanced nuclear  
15 reactor developers, the Secretary considers and im-  
16 plements, as necessary—

17 (A) all viable options to make high-assay,  
18 low-enriched uranium produced from inven-  
19 tories owned by the Department available in a  
20 manner that is sufficient to maximize the po-  
21 tential for the Department to meet the needs  
22 and schedules of advanced nuclear reactor de-  
23 velopers; and

24 (B) all viable options for partnering with  
25 countries that are allies or partners of the

1 United States to meet those needs and sched-  
2 ules.

3 (c) DEFINITIONS.—In this section:

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

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

10 (A) is owned, controlled, or dominated  
11 by—

12 (i) the government of a country that  
13 is an ally or partner of the United States;

14 or

15 (ii) an associated individual; or

16 (B) is organized under the laws of, or oth-  
17 erwise subject to the jurisdiction of, a country  
18 that is an ally or partner of the United States,  
19 including a corporation that is incorporated in  
20 such a country.

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

1           (4) CONSORTIUM.—The term “consortium”  
2 means the consortium established under section  
3 2001(a)(2)(F) of the Energy Act of 2020 (42 U.S.C.  
4 16281(a)(2)(F)).

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

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

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

14           (A) low-enriched uranium (as defined in  
15 section 3102 of the USEC Privatization Act  
16 (42 U.S.C. 2297h)); and

17           (B) low-enriched uranium (as defined in  
18 section 3112A(a) of that Act (42 U.S.C.  
19 2297h–10a(a))).

20           (8) PROGRAMS.—The term “Programs”  
21 means—

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

24           (B) the American Assured Fuel Supply  
25 Program of the Department; and

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

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

6 (10) U.S. NUCLEAR ENERGY COMPANY.—The  
7 term “U.S. nuclear energy company” means a com-  
8 pany that—

9 (A) is organized under the laws of, or oth-  
10 erwise subject to the jurisdiction of, the United  
11 States; and

12 (B) is involved in the nuclear energy indus-  
13 try.

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

17 (1) establish a program, to be known as the  
18 “Nuclear Fuel Security Program”, to increase the  
19 quantity of HALEU and, if determined to be nec-  
20 essary after completion of a market evaluation, LEU  
21 produced by U.S. nuclear energy companies;

22 (2) expand the American Assured Fuel Supply  
23 Program of the Department to ensure the avail-  
24 ability of domestically produced, converted, enriched,

1 deconverted, and reduced uranium in the event of a  
2 supply disruption; and

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

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

13 (B) where practicable, to partner with  
14 countries that are allies or partners of the  
15 United States to meet those needs and sched-  
16 ules until that time.

17 (e) NUCLEAR FUEL SECURITY PROGRAM.—

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

20 (A) shall—

21 (i) if determined to be necessary or  
22 appropriate based on the completion of a  
23 market evaluation, not later than 90 days  
24 after the date of enactment of this Act,  
25 take actions, including cost-shared finan-



1           cial agreements, milestone-based payments,  
2           or other mechanisms, to support commer-  
3           cial availability of LEU and to promote di-  
4           versity of supply in domestic uranium min-  
5           ing, conversion, enrichment, and  
6           deconversion capacity and technologies, in-  
7           cluding new capacity, among U.S. nuclear  
8           energy companies;

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

17          (iii) utilize only uranium produced,  
18          converted, enriched, deconverted, and re-  
19          duced in—

20                  (I) the United States; or

21                  (II) if domestic options are not  
22                  practicable, a country that is an ally  
23                  or partner of the United States; and

24          (iv) to the maximum extent prac-  
25          ticable, ensure that the use of domestic

1 uranium utilized as a result of that pro-  
2 gram does not negatively affect the eco-  
3 nomic operation of nuclear reactors in the  
4 United States; and

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

13 (I) funds are specifically provided for  
14 those purposes in advance in appropria-  
15 tions Acts enacted after the date of enact-  
16 ment of this Act; or

17 (II) the commitment is funded en-  
18 tirely by funds made available to the Sec-  
19 retary from the account described in sub-  
20 section (i)(2)(B); and

21 (ii) may make a commitment described in  
22 clause (i) only—

23 (I) if the full extent of the anticipated  
24 costs stemming from the commitment is

1 recorded as an obligation at the time that  
2 the commitment is made; and

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

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

8 (A) options to ensure the quickest avail-  
9 ability of commercially enriched HALEU, in-  
10 cluding—

11 (i) partnerships between 2 or more  
12 commercial enrichers; and

13 (ii) utilization of up to 10-percent en-  
14 riched uranium as feedstock in demonstra-  
15 tion-scale or commercial HALEU enrich-  
16 ment facilities;

17 (B) options to partner with countries that  
18 are allies or partners of the United States to  
19 provide LEU and HALEU for commercial pur-  
20 poses;

21 (C) options that provide for an array of  
22 HALEU—

23 (i) enrichment levels;

24 (ii) output levels to meet demand; and

1 (iii) fuel forms, including uranium  
2 metal and oxide; and

3 (D) options—

4 (i) to replenish, as necessary, Depart-  
5 ment stockpiles of uranium that were in-  
6 tended to be downblended for other pur-  
7 poses, but were instead used in carrying  
8 out activities under the HALEU for Ad-  
9 vanced Nuclear Reactor Demonstration  
10 Projects Program;

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

18 (iii) to make HALEU available to  
19 other advanced nuclear reactor developers  
20 and other end-users.

21 (3) AVOIDANCE OF MARKET DISRUPTIONS.—In  
22 carrying out the Nuclear Fuel Security Program, the  
23 Secretary, to the extent practicable and consistent  
24 with the purposes of that program, shall not disrupt

1 or replace market mechanisms by competing with  
2 U.S. nuclear energy companies.

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

6 (1) expand the American Assured Fuel Supply  
7 Program of the Department by merging the oper-  
8 ations of the Uranium Reserve Program of the De-  
9 partment with the American Assured Fuel Supply  
10 Program; and

11 (2) in carrying out the American Assured Fuel  
12 Supply Program of the Department, as expanded  
13 under paragraph (1)—

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

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

22 (i) the United States; or

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

1           (C) make uranium available from the  
2 American Assured Fuel Supply, subject to  
3 terms and conditions determined by the Sec-  
4 retary to be reasonable and appropriate;

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

14           (E) take other actions that the Secretary  
15 determines to be necessary or appropriate to  
16 address the purposes of that program and the  
17 objectives described in subsection (b).

18       (g) HALEU FOR ADVANCED NUCLEAR REACTOR  
19 DEMONSTRATION PROJECTS PROGRAM.—

20           (1) ACTIVITIES.—On enactment of this Act, the  
21 Secretary shall immediately accelerate and, as nec-  
22 essary, initiate activities to make available from in-  
23 ventories or stockpiles owned by the Department and  
24 made available to the consortium, HALEU for use  
25 in advanced nuclear reactors that cannot operate on

1 uranium with lower enrichment levels or on alternate  
2 fuels, with priority given to the awards made pursu-  
3 ant to the funding opportunity announcement of the  
4 Department numbered DE-FOA-0002271 for Path-  
5 way 1, Advanced Reactor Demonstrations, with ad-  
6 ditional HALEU to be made available to other ad-  
7 vanced nuclear reactor developers, as the Secretary  
8 determines to be appropriate.

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

17 (A) by September 30, 2024, not less than  
18 3 metric tons of HALEU;

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

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

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

1 (A) options for providing HALEU from a  
2 stockpile of uranium owned by the Department,  
3 including—

4 (i) uranium that has been declared ex-  
5 cess to national security needs during or  
6 prior to fiscal year 2023;

7 (ii) uranium that—

8 (I) directly meets the needs of  
9 advanced nuclear reactor developers;  
10 but

11 (II) has been previously used or  
12 fabricated for another purpose;

13 (iii) uranium that can meet the needs  
14 of advanced nuclear reactor developers  
15 after removing radioactive or other con-  
16 taminants that resulted from previous use  
17 or fabrication of the fuel for research, de-  
18 velopment, demonstration, or deployment  
19 activities of the Department, including ac-  
20 tivities that reduce the environmental li-  
21 ability of the Department by accelerating  
22 the processing of uranium from stockpiles  
23 designated as waste;

24 (iv) uranium from a high-enriched  
25 uranium stockpile, which can be blended



1 with lower assay uranium to become  
2 HALEU to meet the needs of advanced  
3 nuclear reactor developers; and

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

11 (B) options for expanding, or establishing  
12 new, capabilities or infrastructure to support  
13 the processing of uranium from Department in-  
14 ventories;

15 (C) options for accelerating the availability  
16 of HALEU from HALEU enrichment dem-  
17 onstration projects of the Department;

18 (D) options for providing HALEU from  
19 domestically enriched HALEU procured by the  
20 Department through a competitive process pur-  
21 suant to the Nuclear Fuel Security Program es-  
22 tablished under subsection (d)(1);

23 (E) options to replenish, as needed, De-  
24 partment stockpiles of uranium made available  
25 pursuant to subparagraph (A) with domestically

1 enriched HALEU procured by the Department  
2 through a competitive process pursuant to the  
3 Nuclear Fuel Security Program established  
4 under subsection (d)(1); and

5 (F) options that combine 1 or more of the  
6 approaches described in subparagraphs (A)  
7 through (E) to meet the deadlines described in  
8 paragraph (2).

9 (4) LIMITATIONS.—

10 (A) CERTAIN SERVICES.—The Secretary  
11 shall not barter or otherwise sell or transfer  
12 uranium in any form in exchange for services  
13 relating to—

14 (i) the final disposition of radioactive  
15 waste from uranium that is the subject of  
16 a contract for sale, resale, transfer, or  
17 lease under this subsection; or

18 (ii) environmental cleanup activities.

19 (B) CERTAIN COMMITMENTS.—In carrying  
20 out activities under this subsection, the Sec-  
21 retary—

22 (i) may not make commitments under  
23 this subsection (including cooperative  
24 agreements (used in accordance with sec-  
25 tion 6305 of title 31, United States Code),

1 purchase agreements, guarantees, leases,  
2 service contracts, or any other type of com-  
3 mitment) for the purchase or other acquisi-  
4 tion of HALEU or LEU unless—

5 (I) funds are specifically provided  
6 for those purposes in advance in ap-  
7 propriations Acts enacted after the  
8 date of enactment of this Act; or

9 (II) the commitment is funded  
10 entirely by funds made available to  
11 the Secretary from the account de-  
12 scribed in subsection (i)(2)(B); and

13 (ii) may make a commitment de-  
14 scribed in clause (i) only—

15 (I) if the full extent of the antici-  
16 pated costs stemming from the com-  
17 mitment is recorded as an obligation  
18 at the time that the commitment is  
19 made; and

20 (II) to the extent of that up-front  
21 obligation recorded in full at that  
22 time.

23 (5) SUNSET.—The authority of the Secretary to  
24 carry out activities under this subsection shall termi-  
25 nate on the earlier of—

1 (A) the date on which the Secretary noti-  
2 fies Congress that the HALEU needs of ad-  
3 vanced nuclear reactor developers can be fully  
4 met by commercial HALEU suppliers in the  
5 United States, as determined by the Secretary,  
6 in consultation with U.S. nuclear energy compa-  
7 nies; and

8 (B) September 30, 2034.

9 (h) DOMESTIC SOURCING CONSIDERATIONS.—

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

14 (A) the activity promotes manufacturing in  
15 the United States associated with uranium sup-  
16 ply chains; or

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

19 (i) in the United States; or

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

22 (I) the government of that coun-  
23 try;

24 (II) an associated entity; or

1 (III) a U.S. nuclear energy com-  
2 pany.

3 (2) WAIVER.—The Secretary may waive the re-  
4 quirements of paragraph (1) with respect to an ac-  
5 tivity if the Secretary determines a waiver to be nec-  
6 essary to achieve 1 or more of the objectives de-  
7 scribed in subsection (b).

8 (i) REASONABLE COMPENSATION.—

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

16 (2) AVAILABILITY OF CERTAIN FUNDS.—

17 (A) IN GENERAL.—Notwithstanding sec-  
18 tion 3302(b) of title 31, United States Code,  
19 revenues received by the Secretary from the  
20 sale or transfer of fuel feed material acquired  
21 by the Secretary pursuant to a contract entered  
22 into under clause (i) or (ii) of subsection  
23 (e)(1)(A) shall—

24 (i) be deposited in the account de-  
25 scribed in subparagraph (B);

1                   (ii) be available to the Secretary for  
2                   carrying out the purposes of this section,  
3                   to reduce the need for further appropria-  
4                   tions for those purposes; and

5                   (iii) remain available until expended.

6                   (B) REVOLVING FUND.—There is estab-  
7                   lished in the Treasury an account into which  
8                   the revenues described in subparagraph (A)  
9                   shall be—

10                   (i) deposited in accordance with clause

11                   (i) of that subparagraph; and

12                   (ii) made available in accordance with  
13                   clauses (ii) and (iii) of that subparagraph.

14                   (j) NUCLEAR REGULATORY COMMISSION.—The Nu-  
15                   clear Regulatory Commission shall prioritize and expedite  
16                   consideration of any action related to the Programs to the  
17                   extent permitted under the Atomic Energy Act of 1954  
18                   (42 U.S.C. 2011 et seq.) and related statutes.

19                   (k) USEC PRIVATIZATION ACT.—The requirements  
20                   of section 3112(d)(2) of the USEC Privatization Act (42  
21                   U.S.C. 2297h–10(d)(2)) shall not apply to activities re-  
22                   lated to the Programs.

23                   (l) NATIONAL SECURITY NEEDS.—The Secretary  
24                   shall only make available to a member of the consortium  
25                   under this section for commercial use or use in a dem-

1 onstration project material that the President has deter-  
2 mined is not necessary for national security needs, subject  
3 to the condition that the material made available shall not  
4 include any material that the Secretary determines to be  
5 necessary for the National Nuclear Security Administra-  
6 tion or any critical mission of the Department.

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

○