

The Nuclear Fuel Security Act provides the framework for expeditiously eliminating U.S. reliance on foreign adversaries for nuclear fuel imports through domestic nuclear fuel production and ally collaboration.

SUMMARY:

The Nuclear Fuel Security Act mandates the Secretary of Energy to accelerate the rate of U.S. production of low-enriched uranium (LEU) and high assay, low-enriched uranium (HALEU) to reinforce energy security and enable independent domestic scaling of advanced nuclear technology. The bill calls for larger quantities and more efficient use of stockpiles of uranium and emphasizes collaboration with allied or partner nations of the U.S. to aid with fuel production in the event of a domestic supply disruption.

HISTORY:

Currently, Russia dominates the global nuclear fuel supply chain and is the only commercial producer of HALEU. Within its borders, Russia has [38%](#) of global uranium conversion capacity and [46%](#) of global uranium enrichment capacity. In response to the invasion of Ukraine, the U.S., and other countries, have been actively sanctioning Russia's energy industry in an effort to reduce Russian energy influence. The most recent agreement between the U.S. and Russia limits uranium imports from to [no more than 20%](#) of U.S. commercial demand; this portion drops to 15% in 2028.

In the U.S., [Urenco USA](#) in New Mexico operates a large scale LEU facility with the potential to expand production and add HALEU capabilities. Furthermore, [Centrus Energy](#) in Ohio is close to bringing a pilot HALEU enrichment facility online. However, other innovative enrichment technologies are still under development.

SPECIFICS:

The Nuclear Fuel Security Act outlines economic, diplomatic, and developmental strategies to advance American nuclear infrastructure. The bill:

- Calls for the complete elimination of U.S. reliance on foreign adversaries for nuclear fuel supply and presents alternative means through U.S. ally and partner collaboration.
- Creates the Nuclear Fuel Security Program which sets a goal of 100 metric tons per year of LEU production by the late 2026.
- Creates the HALEU for Advanced Nuclear Reactor Demonstration Projects Program which sets a goal of 20 metric tons per year of HALEU by late 2027.
- Merges the Uranium Reserve Program and American Assured Fuel Supply Program to increase and diversify U.S. uranium stores and advances the goal of a domestic nuclear fuel supply chain to prevent market disruptions.



NUCLEAR FUEL SECURITY ACT (S.452 & H.R.1086)

ORIGINAL SPONSORS:

S. 452

Sen. Joe Manchin (D-WV), Sen. John Barasso (R-WY), Sen. James Risch (R-ID)

H.R. 1086

Rep. Bob Latta (R-OH)

COSPONSORS:

S. 452

Sen. Mark Warner (D-VA), Sen. Christopher Coons (D-DE)

H.R. 1086

Rep. John Joyce (R-PA), Rep. Bill Johnson (R-OH), Rep. Randy Weber (R_TX), Rep. Debbie Lesko (R-AZ), Rep. Byron Donalds (R-FL), Rep. Jay Obernolte (R-CA), Rep. Robert Wittman (R-VA)

CONGRESS.GOV LINK: [S.452](#) & [H.R.1086](#)