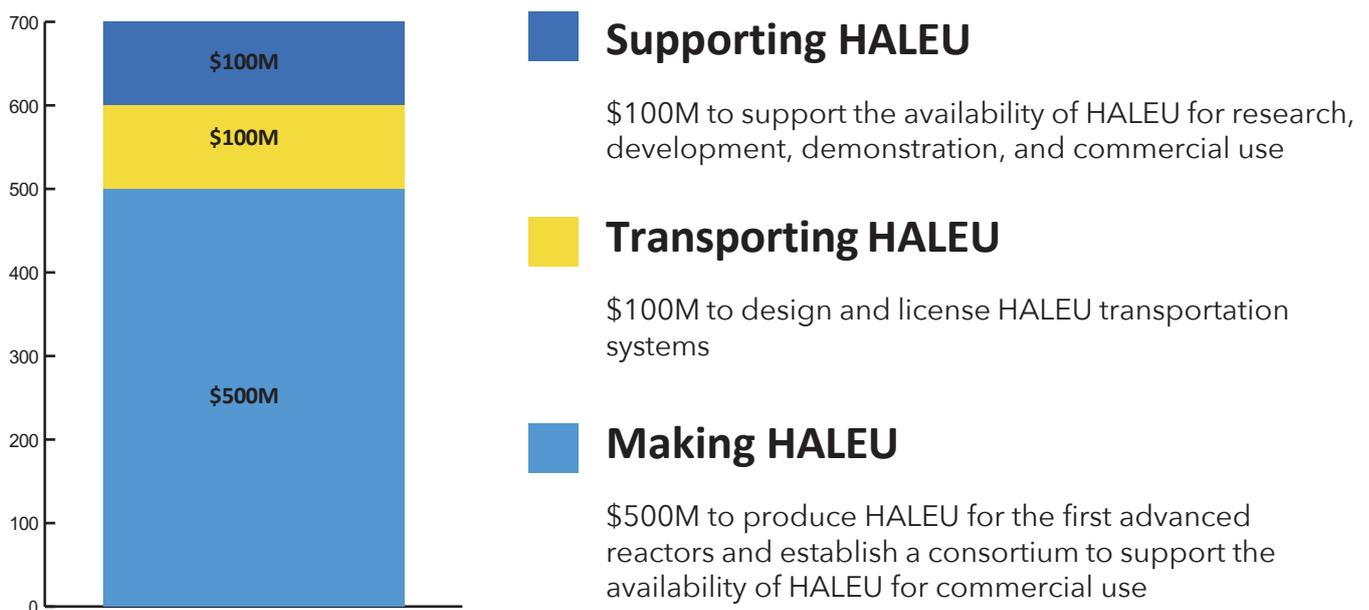


HALEU Provisions in the Inflation Reduction Act of 2022

On August 16, 2022, President Biden signed the Inflation Reduction Act, providing \$700M to support High Assay, Low Enriched Uranium (HALEU) fuel availability for advanced nuclear reactors. The purpose of the funding is to catalyze commercial supply chains for HALEU fuels and enable the operation of next generation reactors expected in the mid-2020s.

One challenge facing the deployment of advanced nuclear energy is that some reactor technologies require nuclear fuels with higher uranium enrichment levels. Most operating commercial nuclear reactors use uranium fuels enriched with the uranium isotope U-235. Reactors in the United States currently use fuels enriched to 3-5% U-235. Many advanced reactors will also use 3-5% enriched uranium for fuel, but some designs will require fuel enrichments of up to 20% U-235. There is currently no commercial infrastructure in the United States to produce these higher uranium enrichments for HALEU fuels for advanced reactors.

Creating a commercially viable HALEU fuel cycle is critical to the successful deployment of many advanced reactor technologies. The only current commercial supplier of HALEU globally is TENEX, a Russian state-owned company. Developing domestic supply chains for HALEU is important for both enabling deployment of advanced nuclear energy as a climate solution and providing energy security for the United States and its allies.



The \$700M designated for HALEU availability is a major investment in new HALEU infrastructure critical for advanced nuclear energy. Continued Congressional support is vital to catalyzing a sustainable commercial HALEU market and meeting the mid-term and long-term supply needs of advanced reactors. A reliable commercial fuel cycle for advanced nuclear reactors is necessary for the successful deployment of advanced reactors, increasing the likelihood and lowering the costs of achieving the world's climate goals.

For more information on how policymakers can support near-, mid-, and long-term solutions for HALEU availability, read *Catalyzing a Domestic Commercial Market for High-Assay, Low-Enriched Uranium (HALEU)* published by the Nuclear Innovation Alliance in April 2022. The White Paper describes the challenges and opportunities associated with development of a domestic commercial HALEU market and identifies potential policy options that can be used to catalyze market development.