



TRISO-X Allocated First Tranche of HALEU for Pioneering Fuel Fabrication

April 9, 2025

ROCKVILLE, Md., April 9, 2025 – X-energy Reactor Company, LLC (“X-energy” or the “Company”), and its wholly owned subsidiary TRISO-X LLC (“TRISO-X”), today [announced](#) an allocation of High-Assay Low-Enriched Uranium (“HALEU”) from the U.S. Department of Energy (“DOE”) Office of Nuclear Energy’s HALEU Allocation Program.

This first allocation is a critical step forward to bridge the HALEU availability gap in the nuclear supply chain with existing material. Coupled with the HALEU Availability Program and other efforts, we expect the commercial sector to further bridge the availability gap to support the delivery and scalability of the advanced reactor fleet. We are grateful for the administration’s strong support for commercializing these next-generation technologies and the reliable, secure energy future we hope to build.

[Joel Duling](#), TRISO-X president

The allocation is part of X-energy’s participation in DOE’s Advanced Reactor Demonstration Program and will be delivered in the first core loads of fuel in partnership with Dow Inc. at their UCC Seadrift Operations manufacturing site on the Texas Gulf Coast. The two companies [recently announced](#) the submission of a construction permit application to the Nuclear Regulatory Commission (“NRC”) for the proposed Xe-100 plant at Seadrift, with the potential to begin construction later this decade and start up early next decade.

TRISO-X will receive the material for fuel fabrication at its future Oak Ridge, Tennessee, fuel fabrication plant, a first-in-the-nation facility to manufacture Tri-structural isotropic (“TRISO”) particle fuel for the commercial market. TRISO-X recently amended its special nuclear material license application to the NRC to reflect the required installation of additional equipment to receive the allocation.

TRISO particle fuel is considered “the most robust nuclear fuel on the planet” because it can withstand very high temperatures without melting, which is key to its safety. TRISO-X has operated a pilot nuclear fuel fabrication facility at Oak Ridge National Laboratory since 2016, serving as a demonstration facility of the company’s patented TRISO fabrication processes. It manufactures its own proprietary version of TRISO fuel to ensure supply, improve quality, and reduce costs.

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About X-Energy Reactor Company, LLC

X-Energy Reactor Company, LLC, is a leading developer of advanced small modular nuclear reactors and fuel technology for clean energy generation that is redefining the nuclear energy industry through its development of safer and more efficient advanced small modular nuclear reactors and proprietary fuel to deliver reliable, zero-carbon and affordable energy to people around the world. X-energy’s simplified, modular, and intrinsically safe SMR design expands applications and markets for deployment of nuclear technology and drives enhanced safety, lower cost and faster construction timelines when compared with other SMRs and conventional nuclear. For more information, visit [X-energy.com](#) or connect with us on [Twitter](#) or [LinkedIn](#).