U.S. DEPARTMENT OF ENERGY | Office of NUCLEAR ENERGY

U.S. Department of Energy Office of Nuclear Energy

Tribal Clean Energy Summit

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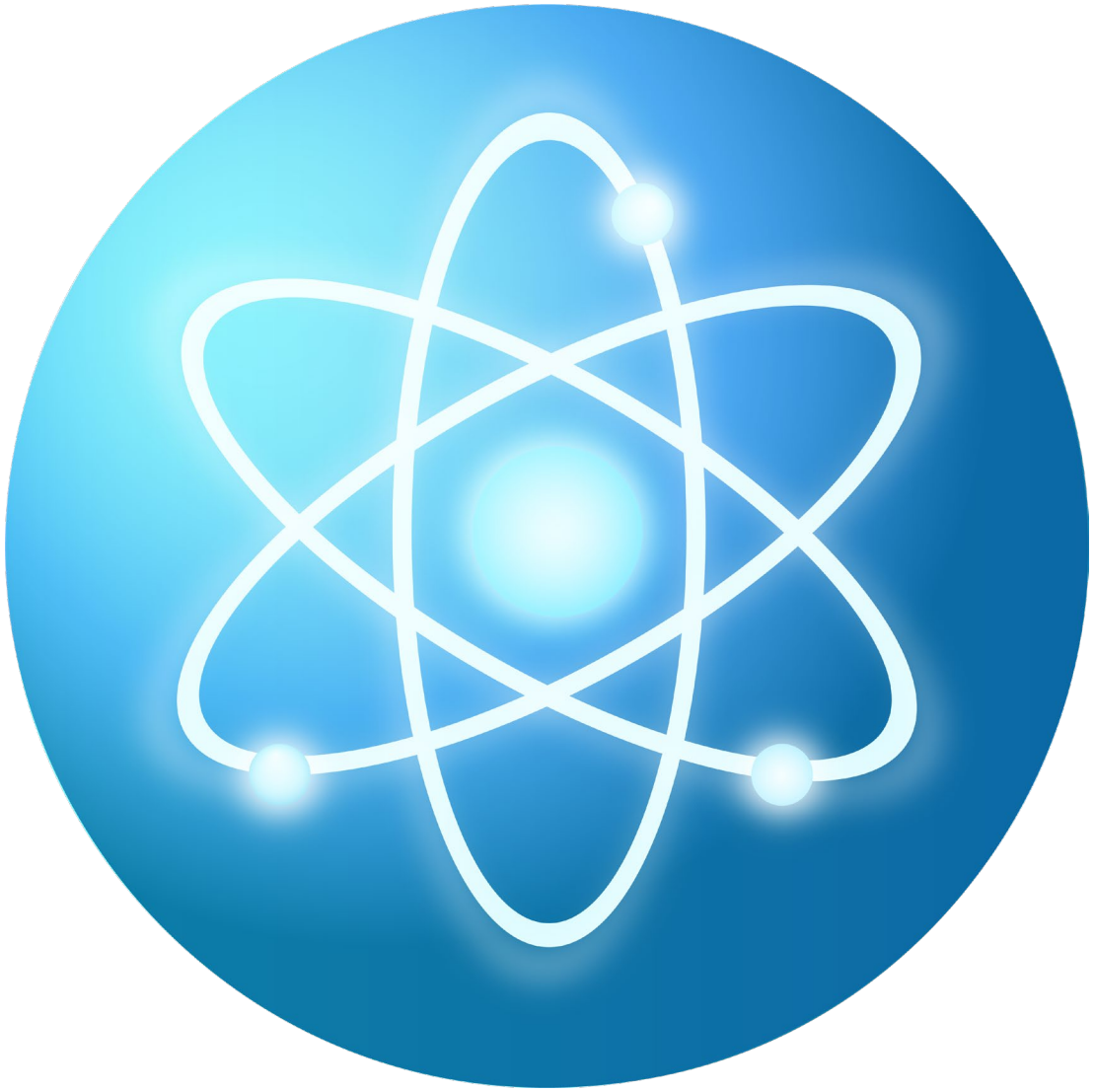
October 4, 2022

Mission

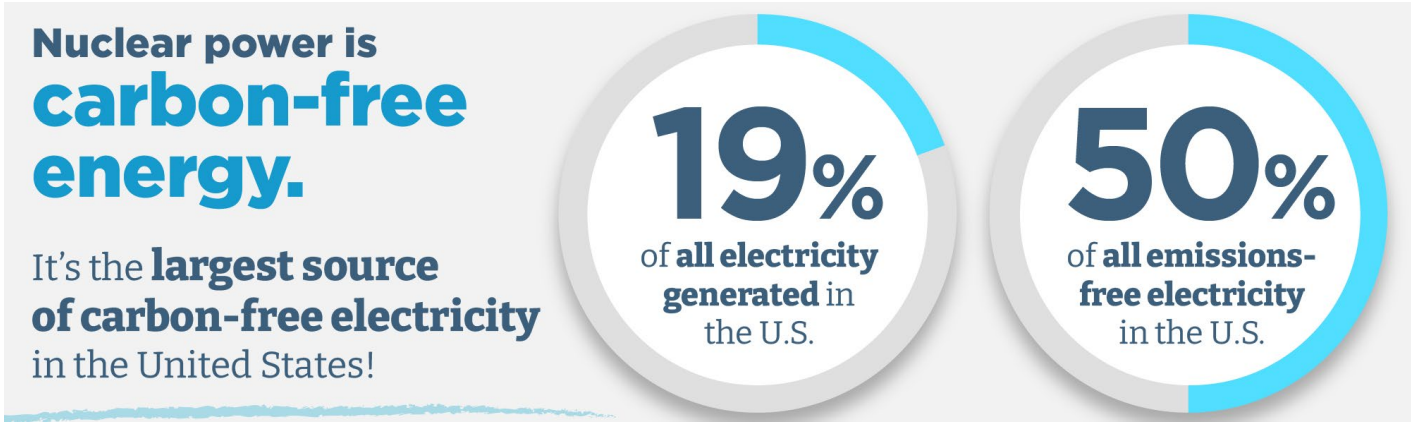
To advance nuclear energy science and technology to meet U.S. energy, environmental, and economic needs

Priorities

1. Enable continued operation of existing U.S. nuclear reactors
2. Enable deployment of advanced nuclear reactors
3. Secure and sustain the global nuclear fuel cycle

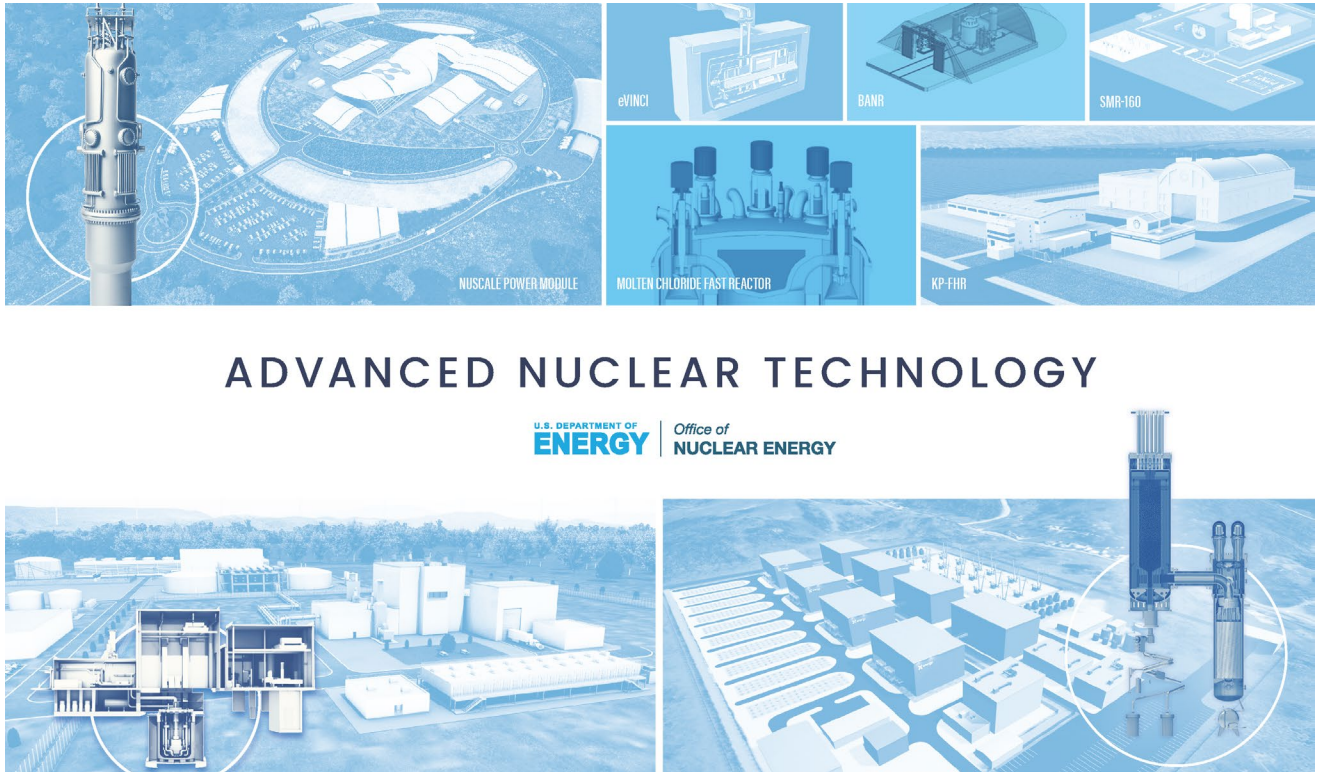


Enable continued operation of existing U.S. nuclear reactors



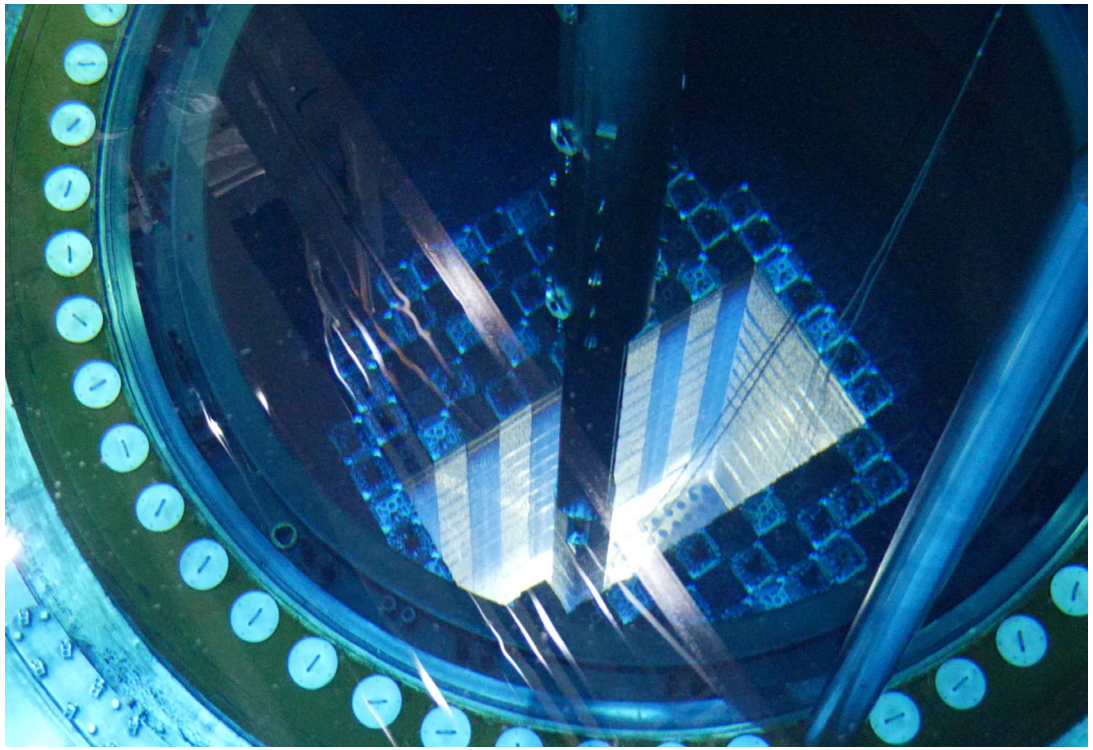
- Civil Nuclear Credit Program provides financial support to reactors at risk of closing due to economic hardship
- R&D programs enhance performance, extend lifetime, reduce operating costs, and develop advanced fuels
- Hydrogen production demonstration will expand application and market for nuclear

Enable deployment of advanced nuclear reactors



- Essential to tackling climate crisis, supplying clean energy, and decarbonizing the economy
- Demonstrating reactors with advances in sustainability, safety and reliability, resource utilization, and economics
- Developing small modular reactors to offer siting flexibility, scalability, and integrated energy uses
- Developing microreactors for off-grid communities, remote industrial locations, forward military bases, and disaster relief missions

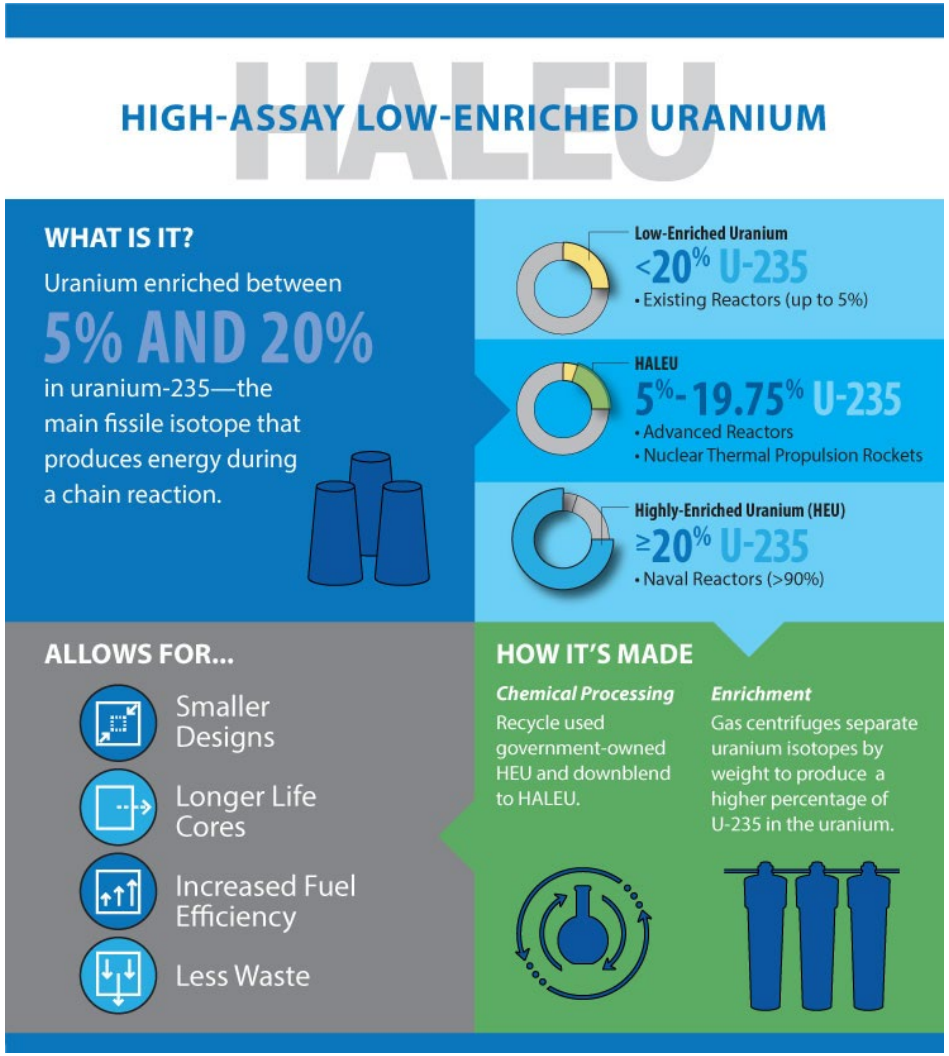
Secure and sustain the global nuclear fuel cycle



- Addressing gaps in the domestic nuclear fuel supply chain for existing and advanced nuclear reactors
- Encouraging expansion of domestic commercial capacity in conversion and enrichment services to assure the supply of low enriched uranium (LEU) and high assay low enriched uranium (HALEU)
- Developing strategy for the integrated waste management of spent nuclear fuel
- Developing a consent-based approach to siting interim storage facilities

Consent-Based Siting

- $16 million to provide resources for communities interested in learning more about consent-based siting, management of spent nuclear fuel, and interim storage facility siting considerations
- Promote dialogue on innovative community ideas, incorporate principles of equity and environmental justice into community engagement strategies, and capture feedback
- Apply by December 19, 2022, at energy.gov/consentbasedsiting



HALEU RFP

- HALEU is urgently needed to support the deployment of advanced reactors, including demonstration projects under the Advanced Reactor Demonstration Program
- The Inflation Reduction Act of 2022 (IRA) invests $700 million to support the development of a domestic supply chain for HALEU
- DOE plans to issue a Request for Proposals as soon as possible to acquire HALEU to support advanced reactors using part of this funding

Coal to Nuclear Transition

COAL TO NUCLEAR:

A new @ENERGY report finds hundreds of coal power plant sites could be converted to nuclear power plant sites—more than doubling U.S. nuclear capacity to more than 350 gigawatts.

- Evaluating feasibility of coal to nuclear transition
- Working to deliver place-based solutions and ensure equitable energy transition
- Early analysis finds hundreds of coal power plant sites across the country could be converted to nuclear power plant sites
- Study shows energy communities could benefit from adding 650 permanent jobs, additional economic activity of $275 million, and 86% reduction in greenhouse gas emissions
- Communities and developers could leverage existing infrastructure and highly skilled workforce
- https://www.energy.gov/ne/articles/could-nations-coal-plant-sites-help-drive-clean-energy-transition

Nuclear Energy Tribal Working Group

THE REACH

12 U.S. Tribes

20 U.S. States including ancestral lands

Current member Tribes and ancestral lands are located near DOE national labs, security sites, operating/shut down nuclear reactors, and along transportation routes for radioactive waste

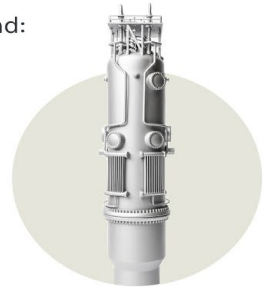
1. Confederated Tribes of the Umatilla Indian Reservation (CTUIR)
2. Consolidated Group of Tribes and Organizations (CGTO)
3. Mashpee Wampanoag Tribe
4. Nez Perce Tribe
5. Omaha Tribe of Nebraska
6. Oneida Nation of Wisconsin
7. Prairie Island Indian Community
8. Pueblo of Jemez
9. Pueblo of Pojoaque
10. Sac and Fox Nation of Missouri in Kansas and Nebraska
11. Shoshone-Bannock Tribes
12. Timbisha Shoshone Tribe

THE WORK

NETWG interests and discussions are centered around:

Nuclear research & development

Nuclear fuel & high-level radioactive waste management



Design and construction of microreactors & small modular reactors

THE PRIORITIES

NETWG strengthens government-to-government relationships with the Office of Nuclear Energy and Indian Tribes to:

INCREASE Tribal Membership & Involvement

Expand **STEM** Opportunities

INTEGRATE Cultural Resource Management