

# Advanced Nuclear: Benefits and Progress

May 15, 2024

#### **Forward-Looking Statements**

**Disclaimer**: Our commentary and responses to your questions may contain forward-looking statements, including our financial projections, and Centrus undertakes no obligation to update any such statement to reflect later developments. Factors that could cause actual results to vary materially from those discussed today include changes in the nuclear energy industry, pricing trends and demand in the uranium and enrichment markets and their impact on our profitability, timing of physical delivery to customers, the competitive environment for our products and services, the impact and potential extended duration of the current supply/demand imbalance in the market for low-enriched uranium, risks related to trade barriers and contract terms that limit our ability to deliver LEU to customers, risks related to actions that may be taken by the U.S. government or other governments that could affect our ability or the ability of our sources of supply to perform under contract obligations, including the imposition of sanctions, restrictions or other requirements, as well as those provided in our most recent Annual Report on Form 10-K and subsequent reports as filed with the SEC.

Industry / Market Data: Industry and market data used in this presentation have been obtained from third-party industry publications and sources as well as from research reports prepared for other purposes. We have not independently verified the data obtained from these sources and cannot assure you of the data's accuracy or completeness.

## America's Uranium Enrichment Company

- Trusted nuclear fuel supplier to utilities around the world.
- ✓ Advanced nuclear fuel pioneer.
- Long-standing national security partner to the U.S. government.



Centrus is leading the effort to restore a U.S. uranium enrichment capacity so we can meet commercial and government requirements.

### Pioneering a New Generation of Reactors – And Fuel

Utilities, industry, government, and U.S. military are working to deploy new, advanced nuclear reactors in coming years:

✓ Smaller

✓ Lower capital costs

Proliferation-resistant
Carbon Free

✓ Inherently safe: shut down with no human intervention



Majority of these reactors require High-Assay, Low-Enriched Uranium (HALEU) – a premium fuel which isn't commercially available in the U.S.



### 3 Tablespoons HALEU = A Lifetime of Clean Electricity

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Higher U235 concentration = smaller fuel cores, smaller reactors, more efficient fuel consumption, and reduced waste production.



Just 750 grams of HALEU, or about 3 tablespoons, can meet your electricity needs for life.



### **U.S. Urgently Needs a Domestic Source of Enrichment**

- Too many imports. U.S. is overwhelmingly dependent on imports.
- Not enough supply. There is not enough non-Russian enrichment to fuel the world's reactors.
- Not enough suppliers. 100% of the world's enrichment capacity belongs to four foreign, state-owned companies.
- Hole in national security supply chain. U.S. lacks ability to enrich uranium for national security missions.



2023 Nuclear Fuel Report





\* Separative Work Units (SWU) are used to measure the amount of work done to enrich uranium.

\*\*The only remaining enrichment plant physically located in the U.S. is controlled by URENCO, a European stateowned corporation.

Sources: World Nuclear Association 2023 - Congressional Budget Office 1985

### The Loss of U.S. Nuclear Fuel Leadership

#### Uranium Enrichment Capacity (Thousand SWU/year)



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Sources: World Nuclear Association 2023 Congressional Budget Office 1985

### **October 2023: Milestone Moment for U.S. Enrichment**

- Launched first NRC-licensed production of High-Assay, Low-Enriched Uranium (HALEU).
- First new, U.S.-owned uranium enrichment plant to start production in 70 years.
- Only deployment-ready technology that is suitable for <u>both</u> commercial and government requirements.

Goal: Scale up to meet full range of U.S. commercial and national security requirements for enriched uranium.







#### Southern Ohio Is Key to Restoring U.S. Nuclear Leadership





- Only NRC Licensed HALEU facility; one of only two facilities in the U.S. licensed for LEU production
- Over 2 million square feet under roof
- Existing enrichment process buildings designed for multiple cascades of 120 centrifuges each with enough space to produce LEU and/or HALEU
- Over 800,000 square feet available for additional fuel cycle operations



### Summary: U.S. Has a Path to Restore Domestic Enrichment

- Bipartisan proposal spearheaded by Chairman Chuck Fleischmann and others provided \$2.78 for domestic enrichment. Signed into law last month.
- Success is possible via a public private partnership that combines private investment with a robust federal commitment rooted in U.S. national security and energy security needs – delivering substantial value to taxpayers.
- Centrus is U.S. Business with U.S. Technology with U.S. Workers building the future of U.S. Nuclear







