Energy Fuels Successfully Produces First Kilogram of 99.9% Purity Dysprosium Oxide at its White Mesa Mill in Utah; on Track to Commence Terbium Production in Q4 2025

written by Raj Shah | August 21, 2025

Energy Fuels is planning to install large-scale dysprosium, terbium, and potentially other "heavy" rare earth oxide production capacity at its White Mesa Mill in Utah by Q4-2026.

August 21, 2025 (Source) – Energy Fuels Inc. (NYSE: UUUU) (TSX: EFR), a leading U.S. producer of uranium, rare earths, and critical minerals, is pleased to announce that it has successfully completed production of its first kilogram of dysprosium (Dy) oxide at pilot scale at the Company's White Mesa Mill in Utah. The Company achieved a purity of 99.9% Dy, which is well in excess of the 99.5% commercial specification. The Mill expects to continue producing dysprosium oxide at a rate of two (2) kilograms per week. Energy Fuels believes it is the first U.S. company to both produce high-purity Dy oxide and publicly disclose actual production volumes and purities. These oxides are being produced from monazite mined in Florida and Georgia, USA and demonstrate the expected viability of Energy Fuels' completely non-Chinese rare earth oxide supply chain. Multiple magnet manufacturers and OEMs have already expressed their strong interest in obtaining these samples to accelerate their validation processes.



Sample of high-purity Dy oxide produced at Energy Fuels' White Mesa Mill in Blanding, Utah (CNW Group/Energy Fuels Inc.)

Energy Fuels believes the quantity and purity of its Dy oxide production is unmatched in the United States at this time and is a testament to the White Mesa Mill's world-class rare earth element (REE) production capabilities. Pilot-scale production is expected to continue until approximately 15 kilograms of Dy oxide are produced. At that point, Energy Fuels intends to produce high purity terbium (Tb) oxide and is targeting Q4-2025 for the first samples of Tb oxide to be available for end-user validation.

Due to the ongoing success of this "heavy" REE pilot project, the Company intends to construct and commission commercial-scale Dy, Tb, and potentially other "heavy" REE separation capacity at its White Mesa Mill, which could be in production as soon as Q4 2026.

"Energy Fuels' high purity Dy oxide production is a major leap toward securing a U.S. supply of 'heavy' rare earth oxides for a variety of commercial and defense uses," said Energy Fuels CEO Mark S. Chalmers. "This is real, high-quality material in-hand, ready for independent testing, demonstrating that our Utah facilities can deliver world-class critical minerals domestically. Data and knowledge from our pilot plants will guide the design and construction of commercial Dy, Tb, and potentially other 'heavy' rare earth separation infrastructure that we plan to install in Utah next year."

Last year, Energy Fuels announced the completion and commissioning of its commercial scale “light” rare earth oxide circuit at the Mill with a successful run of ‘on-spec’ neodymium-praseodymium (NdPr) oxide used in permanent magnets for electric mobility, robotics, drones, wind energy and defense technologies. That material has been tested and qualified by magnet makers around the world and is expected to be used in EVs and hybrid vehicles available for sale in the U.S., EU and Asia this year.

These production accomplishments demonstrate the Company’s growing capabilities to deliver critical minerals to the United States and build upon the Company’s structural advantages in the U.S. REE space including existing licenses, facilities, knowledge, and proven commercial capacity at the White Mesa Mill in Utah.

About Energy Fuels

Energy Fuels is a leading U.S.-based critical minerals company, focused on uranium, REEs, heavy mineral sands, vanadium and medical isotopes. Energy Fuels, which owns and operates several conventional and in-situ recovery uranium projects in the western United States, has been the leading U.S. producer of natural uranium concentrate for the past several years, which is sold to nuclear utilities that process it further for the production of carbon-free nuclear energy. Energy Fuels also owns the White Mesa Mill in Utah, which is the only fully licensed and operating conventional uranium processing facility in the United States. At the Mill, Energy Fuels also produces advanced REE products, vanadium oxide (when market conditions warrant), and is evaluating the potential recovery of certain medical isotopes from existing uranium process streams needed for emerging Targeted Alpha Therapy cancer treatments. Energy Fuels is also developing three (3) additional heavy mineral

sands projects: the Toliara Project in Madagascar; the Bahia Project in Brazil; and the Donald Project in Australia in which Energy Fuels has the right to earn up to a 49% interest in a joint venture with Astron Corporation Limited. Energy Fuels is based in Lakewood, Colorado, near Denver. The primary trading market for Energy Fuels' common shares is the NYSE American under the trading symbol "UUUU," and its common shares are also listed on the Toronto Stock Exchange under the trading symbol "EFR." For more information on all Energy Fuels does, please visit http://www.energyfuels.com

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This news release contains certain "Forward Looking Information" and "Forward Looking Statements" within the meaning of applicable United States and Canadian securities legislation, which may include, but are not limited to, statements with respect to: any expectation that the Company's pilot scale production of heavy REEs will continue to be successful; any expectation of the purity of any of the REE or heavy REE oxides to be produced at the Mill; any expectation as to the timing of pilot and/or commercial scale production of REE or heavy REE oxides at the Mill; any expectation that the Company will install and commission commercial Dy, Tb, and potentially other "heavy" REE separation capacity at the White Mesa Mill as soon as late-2026, or at all; any expectation as to the viability of Energy Fuels' completely non-Chinese rare earth oxide supply chain; any expectation that Energy Fuels' high purity Dy oxide production is a major leap toward a secure U.S. supply of heavy REE oxides; any expectation that the Company's Utah facilities can deliver world-class critical minerals, domestically; any expectation that market conditions may support rare earth production; any expectation as to the Company's production capacity or expected timelines to production; any expectation as to estimated recoverable REE oxides; any expectation that the

Company's development projects will be placed into production; and any expectation that the Company will be successful at recovering certain medical isotopes from existing uranium process streams needed for emerging Targeted Alpha Therapy cancer treatments. Generally, these forward-looking statements can be identified by the use of forward-looking terminology such as "plans", "expects," "does not expect," "is expected," "is likely," "budgets," "scheduled," "estimates," "forecasts," "intends," "anticipates," "does not anticipate," or "believes," or variations of such words and phrases, or state that certain actions, events or results "may," "could," "would," "might" or "will be taken," "occur," "be achieved" or "have the potential to." All statements, other than statements of historical fact herein are considered to be forward-looking statements. Forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements to be materially different from any future results, performance or achievements express or implied by the forward-looking statements. Factors that could cause actual results to differ materially from those anticipated in these forward-looking statements include risks associated with: commodity prices and price fluctuations; engineering, construction, processing and mining difficulties, upsets and delays; permitting and licensing requirements and delays; changes to regulatory requirements; legal challenges; competition from other producers; government and political actions or inactions; market factors, including future demand for REEs, titanium and zirconium; and the other factors described under the caption "Risk Factors" in the Company's most recently filed Annual Report on Form 10-K, which is available for review on EDGAR at www.sec.gov/edgar.shtml, on SEDAR at www.sedar.com, and on the Company's website at www.energyfuels.com. Forward-looking statements contained herein are made as of the date of this news release, and Energy

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