Energy Fuels Announces First U.S. Primary Production of Critical “Heavy” Rare Earth Material in Decades

written by Raj Shah | March 25, 2026

In a major win for U.S. critical mineral supply chains, Energy Fuels successfully produces high-purity terbium oxide in Utah from ore mined in Florida and Georgia, demonstrating the first U.S. mine to oxide capability to provide a secure western source of “heavy” rare earth oxides used in key commercial and defense technologies.

March 25, 2026 (Source) – Energy Fuels Inc. (NYSE: UUUU) (TSX: EFR), a leading U.S. producer of uranium, rare earths, and critical materials, today announced it has successfully produced its first kilogram (kg) of terbium (Tb) oxide at its White Mesa Mill in Utah. Using monazite ore sourced from the United States, the team achieved a purity of 99.9% Tb at pilot scale, which meets the specifications of global manufacturers of rare earth permanent magnets (REPMs). This achievement follows the Company’s recent announcement that it had produced nearly 30 kg of 99.9% pure dysprosium (Dy) oxide production, another critical “heavy” rare earth oxide (REO) used in permanent magnets.

“This success proves we can process and produce high purity ‘heavy’ rare earth oxides economically and at scale in the U.S.,” said Energy Fuels CEO Mark Chalmers. “North America will soon have a reliable and secure U.S. commercial source of these vital critical materials ensuring availability for high-performance magnet and defense technologies. This is just another example of the outstanding team the company has at both

the Mill, and elsewhere, as the company continues to advance our strategy of becoming a world significant critical material producer.”

Energy Fuels believes it is the first U.S. company in many decades to produce high-purity Tb oxide from a primary mineral feedstock and publicly disclose actual production volumes and purities that are sufficient for downstream metal/alloy validation. Like the Company’s Dy oxide, its Tb oxide has been requested by multiple magnet manufacturers and OEMs around the world to begin product validation. Both Dy and Tb are subject to Chinese export controls highlighting the need for secure, western supply chains.

Adding Dy and Tb to permanent magnets makes a superior product for electric vehicles (EVs)/hybrid EVs, drones, robotics, and defense technologies by improving operational capabilities in high heat conditions and enabling smaller, lighter, and more powerful motors and actuators. The Mill expects to continue producing terbium oxide at an approximate rate of one kilogram per week in its existing pilot circuit, followed by pilot production of Sm, Eu, and Gd oxides.

The Company also plans to expand its heavy rare earth element production capability at its existing Mill circuits for the planned commercial-level recovery of Dy, Tb, Sm, Eu and Gd, with the ability to separate other heavy rare earth elements such as Y and Lu if market conditions warrant. Subject to the receipt of required regulatory approvals and sufficient quantities of monazite sand feedstock, the expanded commercial circuit is expected to be operational as early as 2027, with planned production recovery of up to approximately 35 tonnes of Dy, 12 tonnes of Tb per year and potentially other heavy rare earth elements, in addition to the 850 – 1,000 tonnes of NdPr, from processing up to approximately 10,000 tonnes of monazite per

year through existing circuits.

The Company also plans to further expand its NdPr, Dy and Tb production capability and potentially other REE material production capability through the development of its stand-alone Phase 2 Circuit as early as 2029, subject to the receipt of regulatory approvals and sufficient feed materials. Upon commissioning, the Phase 2 Circuit is expected to increase the Mill's rare earth oxide production capacity to over 6,000 tpa of NdPr oxide, along with approximately 80 tpa of Tb and 288 tpa of Dy oxides. This would provide the capability to produce sufficient NdPr for up to approximately 7.0 million EVs/hybrid EVs per year.

Moving forward, the Company expects to continue purchasing monazite concentrates from U.S. companies and to import additional significant quantities from allied nations, including Energy Fuels' "shovel-ready" Donald Project in Australia, massive Vara Mada Project in Madagascar, and prospective Bahia Project in Brazil. The Company is also planning to install circuits at the Mill to enable the processing of mixed rare earth concentrates (MREC) for both "light" and "heavy" rare earth oxides, subject to receipt of regulatory approvals. MREC is a partially processed, intermediate rare earth material.

About Energy Fuels

Energy Fuels is a leading U.S. critical materials company specializing in uranium, rare earth elements, heavy mineral sands, vanadium, and medical isotopes. With several uranium projects in the western United States, Energy Fuels has been the top U.S. producer of natural uranium concentrate, supplying nuclear utilities. The Company owns the only fully licensed conventional uranium mill in the U.S.—the White Mesa Mill in Utah—where it also produces REE products and evaluates medical

isotope recovery for emerging cancer therapies. Additionally, Energy Fuels is developing three heavy mineral sands projects: the Vara Mada Project in Madagascar, Bahia Project in Brazil, and Donald Project in Australia (through a joint venture with Astron Corporation Limited). Based in Lakewood, Colorado, its shares trade on the NYSE American ("UUUU") and TSX ("EFR"). For more details, 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 can process and produce high purity 'heavy' rare earth oxides economically and at scale in the U.S.; any expectation that North America will soon have a reliable and secure U.S. commercial source of heavy rare earth elements; any expectation that the Company's Tb oxide will be successfully validated by magnet manufacturers and/or OEMs; 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 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 rare earth elements, 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 Fuels disclaims, other than as required by law, any obligation to update any forward-looking statements whether as a result of new information, results, future events, circumstances, or if management's estimates or opinions should change, or otherwise. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements.

Accordingly, the reader is cautioned not to place undue reliance on forward-looking statements. Energy Fuels assumes no obligation to update the information in this communication, except as otherwise required by law.

www.energyfuels.com

SOURCE Energy Fuels Inc.

Investor and Media Contact: Energy Fuels Inc., Kim Ronkin Casey, Investor Relations Manager, 303-389-4165, KCasey@energyfuels.com