

Energy Fuels announces an MOU for a \$122M investment in Astron that will supply a “new U.S.-based supply chain for decades”

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For those following the critical metals space, there was some key U.S. news on December 1, 2023. The U.S. government announced their [proposed policy](#) for Foreign Entities of Concern (“FEOC”). The key part of the proposal effectively [stated](#) that starting from 2025 an eligible clean vehicle may not contain any critical minerals that were extracted, processed, or recycled by an FEOC. FEOCs were [named to be](#) China, Russia, North Korea, and Iran.

This means OEMs selling in the U.S. auto market are now in a mad scramble to source processed critical minerals from non-FEOC sources before 2025, otherwise, their customers can miss out on the US\$7,500 clean vehicle subsidy (half of which is impacted by material sourcing). One of the hardest to source will be the magnet rare earths used in the permanent magnet motor of most electric vehicles and many wind turbines. This is because China dominates the rare earths industry.

Energy Fuels is making major moves to build a new rare earths supply chain in the USA

[Energy Fuels Inc.](#) (NYSE American: UUUU | TSX: EFR) is a leading

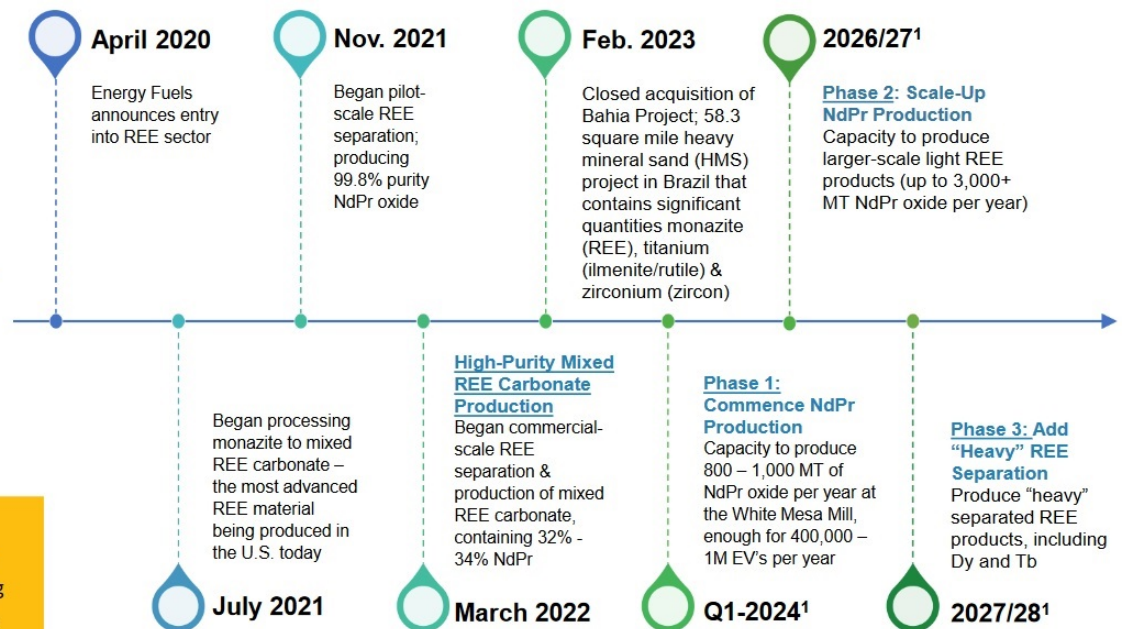
U.S.-based critical minerals producer. In fact, they are the 'leading' U.S. producer of uranium, vanadium, and rare earth elements. Energy Fuels White Mesa Mill is “the only existing facility in North America with the licenses and capabilities to process monazite and produce advanced rare earth element products.”

2023 has been a very prosperous year for Energy Fuels with rare earth concentrate production and a booming uranium price helping their large uranium business.

Energy Fuels plan is to grow their rare earths concentrate business to also include rare earths separation to produce rare earth oxides. Phase 1 plans to have a capacity of 800 – 1,000 MT of neodymium-praseodymium (NdPr) oxide per year by Q1 2024 and Phase 2 a capacity of 1,500 – 3,000+ MT NdPr oxide per year by 2026/27. The Phase 3 plan is to produce heavy separated rare earths including dysprosium (Dy) and terbium (Tb) by 2027/28.

Energy Fuels is one of the leaders in the race to build up a U.S. rare earths supply chain independent of FEOC such as China

Race to A New Age of Clean Energy



Current REE Prices²:

NdPr oxide = \$69.79/kg
 Dy oxide = \$367.50/kg
 Tb oxide = \$1,127.00/kg

¹ Expected production, subject to successful construction, commissioning, and receipt of sufficient monazite and REE feed
² Asian Metal, October 31, 2023; 1 RMB = US\$0.1367

Source: [Energy Fuels company presentation](#)

To achieve their plan, Energy Fuels needs sufficient monazite ore as feed, hence their recent acquisitions. In February 2023, Energy Fuels [acquired](#) the Bahia heavy mineral sand (“HMS”) Project in Brazil that contains significant quantities of monazite (rare earths containing ore). But wait there’s more!

Energy Fuels announces a new rare earths sourcing MOU with Australian company Astron

As [announced](#) on December 27 Energy Fuels entered into an MOU to secure a near-term, large-scale Australian source of rare earth minerals. The announcement says this will supply a “new U.S.-based supply chain for decades” and that “most licenses and permits are in place (or at an advanced stage of completion)”. Energy Fuels proposed investment is ~A\$180 million (~US\$122 million) for a 49% interest in the new Joint Venture.

The MOU is with Astron Corporation Limited (ASX: ATR) (“Astron”) to jointly develop the Donald Rare Earth and Mineral Sands Project in Victoria, Australia. The announcement [states](#):

“The Donald Project is a world-class, world scale, ‘shovel-ready’ critical mineral deposit that Energy Fuels believes would provide it with another near-term, low-cost, and large-scale source of monazite sand in an REE concentrate (“REEC”) that would be transported to the Company’s White Mesa Mill in Utah, USA (the “Mill”) for processing into REE oxides and other advanced REE materials and recovery of the contained uranium...The Donald Project is expected to provide Energy Fuels with 7,000 to 14,000 metric tons (“tonnes”) of REEC per year, containing 4,000 to 8,200 tonnes of total REE oxides (“TREO”), with commissioning

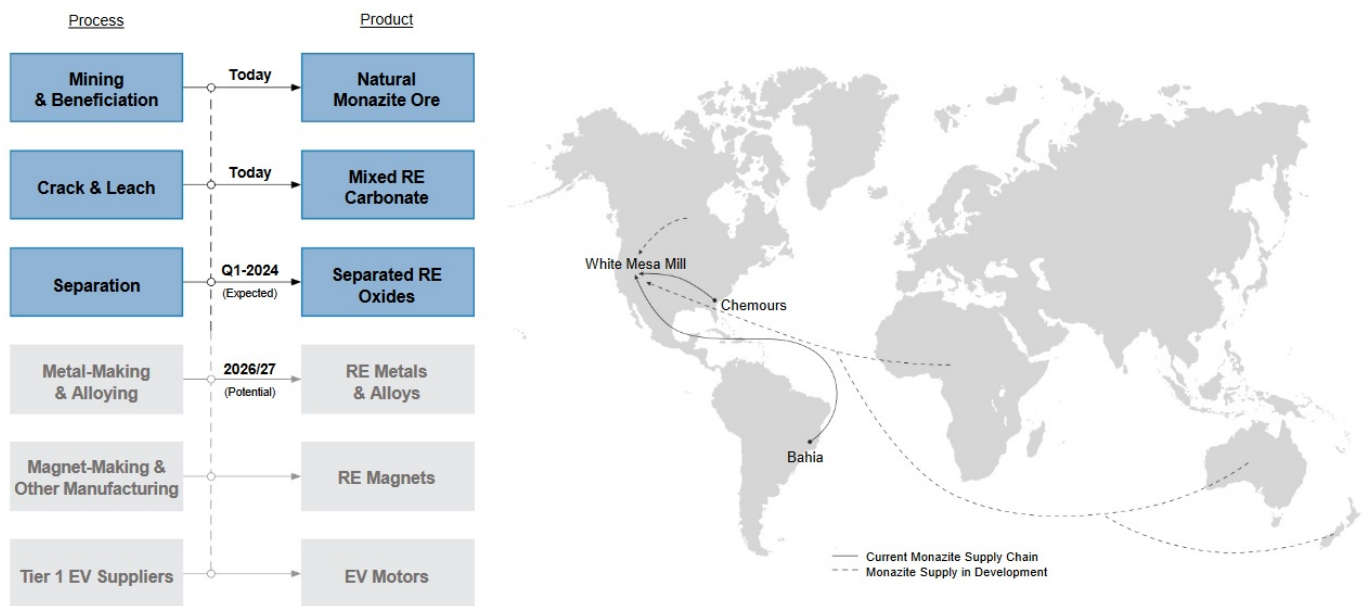
and ramp-up expected to begin in 2026. Most of Energy Fuels' proposed investment is expected to be disbursed in 2025."

Note: REEC is rare earth elements concentrate.

Energy Fuel's masterplan for rare earths products and supply sources

A New Capital Efficient Rare Earth Supply Chain

Created by Energy Fuels – Centered in the U.S.



Source: [Energy Fuels company presentation](#)

Closing remarks

Energy Fuels is steadily putting together all the pieces of a jigsaw puzzle in order to create a new western supply chain of rare earths products, that will be needed to support the U.S. demand for their own electric vehicle and clean energy industry, independent of China.

The Bahia Project announced in early 2023 will provide near-term rare earth concentrate supply from Brazil, and all going to plan, the Donald Project will also provide a supply from 2026.

Meanwhile, Energy Fuels is currently doing very well from their U.S.-based uranium production business, boosted by surging uranium prices in 2023 (now at [US\\$91/lb](#) at the time of writing).

Energy Fuels trades on a market cap of [US\\$1.16 billion](#) with the stock price up [~25%](#) in the past year.