

How the largest producer of US uranium is on its way to becoming a major rare earths player

There hasn't been much news from Energy Fuels Inc. (NYSE American: UUUU | TSX: EFR) since their announcement on December 14, 2020, for a new three-year supply agreement for monazite with The Chemours Company (NYSE: CC). However, the company has presented at two investment conferences so far in 2021 – one in January (NobleCon 17 Virtual Conference) and one in February (MI3/InvestorIntel Rare Earths Virtual Conference) as management updates the market on the company's progress. Recall that Energy Fuels is one of our Top 5 Rare Earths companies for 2021.

Firstly, note that Energy Fuels' core business is uranium and the company is the largest US producer of uranium. The company owns and operates the only fully licensed and operating conventional uranium mill in the US (the White Mesa Mill). They have a licensed capacity of 8 million pounds of U3O8 per year and this provides Energy Fuels with "significant production scalability as uranium prices recover in the years ahead."

Recall that the US has identified a number of critical materials that are part of the declaration of a National Emergency program to expand domestic mining and supply due to the near-complete reliance of Chinese suppliers for rare earths.

As part of the solution, the company declared the intention to enter the rare earths business in April 2020. The process systems in place at the White Mesa Mill provide Energy Fuels

with a significant competitive advantage with respect to entering the rare earths space. With less than about US\$2 million of capital investment, the company has created a rare earths business and is due to produce a rare earths concentrate this quarter.

The significance of this event should not be underestimated. Energy Fuels will be the first U.S. company in years to produce a marketable mixed rare earths concentrate ready for separation on a commercial scale. The company has a firm three-year supply contract with The Chemours Company. Energy Fuels has contracted for a minimum of 2,500 tons per year of natural monazite sands from Chemours' Offerman Mineral Sand Plant in Georgia.

The company estimates that the amount of rare earths contained in the monazite sands supplied by Chemours will equal close to 10% of total current U.S. rare earths demand, as contained in end-use products. While the minimum 2,500 tons per year is contracted for a 3-year period, there is an opportunity to increase this tonnage from Chemours over time, perhaps by as much as 2 or 2.5 times.

The rare earths business is complementary to the company's core uranium business, as some of the highest-value rare earths-bearing minerals also contain uranium. With current licensing at the White Mesa Mill, Energy Fuels is well ahead of the non-Chinese competition, domestically and internationally, looking to build new processing facilities.

Significant growth is projected in the coming years due to exploding demand for rare earths permanent magnets with up to a 5-fold increase in demand for magnet rare earths oxides through 2030. Energy Fuels' White Mesa Mill is an existing U.S. facility that can help bring rare earth production back to the U.S.

The company's goal is to continue to build up a fully

integrated US supply chain. While the company will not become a mining company, it intends to be a part of the domestic solution, including concentrate and separation of rare earths, to the manufacture of metals, alloys and powders and possibly rare earths permanent magnets.

Management has stated that they will seek to further source rare earths monazite ore from domestic suppliers and international allies and interested parties have already contacted the company. There is currently no domestic separation facility, but the company is conducting scoping studies for separation costs plus metals and alloys (depends on scale) plants. It plans to have these completed in 2021.

These are very ambitious plans, but Energy Fuels is uniquely positioned to be successful. They have already proven their capabilities by producing concentrate in pilot runs last year. We are looking for the announcement for the commercial production of rare earths concentrate, targeting Q1-2021 – that is imminent. The company should be low on the cost curve for rare earths concentrate, owing to the White Mesa Mill infrastructure and future valued-added products including separation and potential metals or magnets are also likely to benefit from the infrastructure at White Mesa Mill.

This is a great pivot by the company in less than one year. From a pure uranium/vanadium producer, the company is on its way to becoming a major domestic rare earths player. As the US strives to achieve a domestic rare earths industry, Energy Fuels can potentially become the low-cost domestic rare earths producer and a key player in full integration of the domestic rare earths supply chain with the White Mesa Mill.

Watch this space!