

ENERGY FUELS INC.

Rare Earth Business Continues to Advance

EVENT

Energy Fuels signed a Memorandum of Understanding (MOU) with private company Nanoscale Powders (NSP) for the development of a new technology to potentially produce rare earth element (REE) metals on a commercial scale.

BOTTOM LINE

Modest Positive – This is an important milestone for Energy Fuels’ REE business unit. Producing REE metals is the intermediate step that comes after the production of separated REE oxides and before the manufacturing of neodymium iron boron (NdFeB) magnets used in electric vehicles (EVs) and wind turbines.

FOCUS POINTS

- **MOU Details** – Under the MOU, Energy Fuels will provide funding of up to \$10 MM over the next three years, after which point it will control the exclusive rights to Nanoscale’s tech as it relates to REE metal manufacturing. Should the project/technology prove unsuccessful at the commercial scale, UUUU has the right to cease funding at various decision points over the next three years prior to spending the full \$10 MM and completing its 100% earn-in.
- **Nanoscale Powders Tech** – NSP holds several patents on a process it has developed that produces REE metals from REE oxides via molten sodium reduction of anhydrous REE chloride materials. This technology has zero carbon emissions and is expected to be less expensive than conventional REE metal producing methods.
- **Maintaining Buy Rating and Target** – We continue to value Energy Fuels’ REE business unit at \$270 MM. We maintain our Buy rating and \$8.75/C\$11.00/share price target.

Recommendation:

BUY

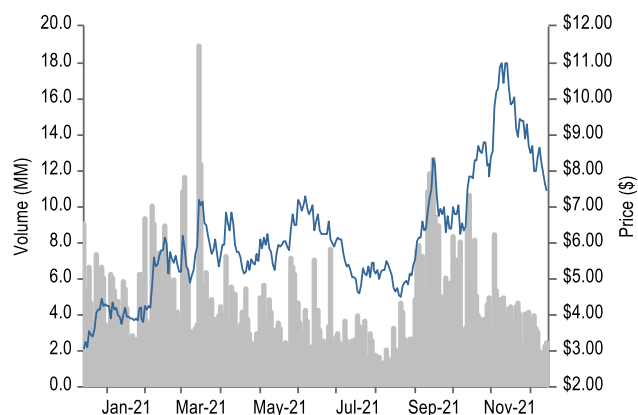
Symbol/Exchange: UUUU-NYSE/EFR-TSX
Sector: Metals & Mining
All dollar values in US\$ unless otherwise noted.
Current price: \$7.43/C\$9.56
One-year target: \$8.75/C\$11.00
Return to Target: 17.8%
Cash and Equivalents: \$100.2 MM

Financial Summary:

Shares O/S (MM)	155.6	52-week range	\$3.07-\$11.39	
Market cap (MM\$)	\$1,156.3	30D avg. vol. (000)	4,827	
Market float (MM\$)	\$1,137.4	Fiscal year-end	31-Dec	
Calendar Year	2018A	2019A	2020A	2021E
Uranium Production* (K lb)	493	130	197	35
Uranium Sales (K lb)	650	N/A	N/A	N/A
Realized U ₃ O ₈ Price (\$/lb)	\$32.20	N/A	N/A	N/A
Cash Operating Costs (\$/lb)	\$22.69	N/A	N/A	N/A
Basic EPS, dil., adj.	(\$0.30)	(\$0.40)	(\$0.23)	(\$0.23)
Dividends per share	-	-	-	-
CFPS (before W/C)	(\$0.05)	(\$0.21)	(\$0.21)	(\$0.17)
Free CFPS	(\$0.35)	(\$0.21)	(\$0.22)	(\$0.43)

*includes U₃O_{8e} from Alternate Feed circuit

Source: Company Reports and Cantor Fitzgerald Estimates



Company profile: Energy Fuels is an integrated uranium, vanadium, and REE mining company focusing on production and development exclusively in the U.S.

Mike Kozak

mike.kozak@cantor.com
(416) 350-8152

Sales/Trading — Toronto: (416) 363-5757, (866) 442-4485

See disclosure and a description of our recommendation structure at the end of this report.

SIGNS MOU WITH NANOSCALE POWDERS

This morning, Energy Fuels announced the execution of a Memorandum of Understanding with private Boston-based Nanoscale Powders for the development of a new technology to potentially produce rare earth element metals, specifically neodymium-praseodymium (NdPr), on a commercial scale. This is an important milestone for Energy Fuels' REE business unit. Producing REE metals is the intermediate step that comes after the production of separated REE oxides and before the manufacturing of NdFeB magnets used in EVs and wind turbines. As a reminder, the Company is currently producing a high-purity mixed rare earth carbonate, which is sold to Neo Performance Materials (NEO-TSX, Not Covered) and processed at its Silmet separation facility in Estonia. Energy Fuels is advancing a plan to add a solvent extraction (SX) circuit at its 100%-owned White Mesa mill facility in Utah, that would potentially produce separated REE oxides at a commercial scale on-site in the next several years.

MOU DETAILS

Under the MOU with Nanoscale, Energy Fuels will provide funding of up to \$10 MM over the next three years, after which point it will control the exclusive rights to NSP's tech as it relates to REE metal manufacturing. Should the project/technology prove unsuccessful at the commercial scale, UUUU has the right to cease funding at various decision points over the next three years prior to spending the full \$10 MM and completing its 100% earn-in. Under that scenario, Energy Fuels would hold a percentage of the technology proportional to its amount contributed, subject to a buy-back at the option of NSP. The MOU outlines a phased development plan to ultimately scale up the technology and REE metal production to the rate of 1,000 tonnes of one or more REE metals per year. The capital outlays to be provided by Energy Fuels under the MOU are outlined in Exhibit 1 below.

Exhibit 1. MOU Payment Details

1. US\$250,000 within five (5) business days after execution of the MOU;
2. US\$250,000 within five (5) business days after execution and delivery of the Definitive Agreements;
3. US\$1 million within five (5) business days after execution and delivery of the Definitive Agreements to be applied to the Project's 2022 budget and work plan; and
4. Energy Fuels will fund all future approved annual budgets as may be required for commercialization of the Project, up to a maximum additional expenditure of US\$8.5 million over three (3) years, totaling US\$10 million for the Project.

Source: Energy Fuels

NANOSCALE POWDERS TECH

NSP holds two patents and one pending patent application on a process it has developed that produces REE metals from REE oxides via molten sodium reduction of anhydrous REE chloride materials. This technology has zero carbon emissions and is expected to be less expensive than conventional REE metal producing methods. NSP's patented technology has been proven to produce REE metals on a kilogram batch scale basis. UUUU's investment is intended to advance NSP's technology toward 1) the continuous, pilot-scale production of 10 kg/h of NdPr metal that meets specifications for NdFeB magnets, 2) the construction of a batch reactor capable of producing key minor magnet metals (specifically dysprosium and terbium), 3) the demonstration of samarium-cobalt alloy production. The strategic, up to \$10 MM project venture, will be directed by Energy Fuels with technical support from other firms as required.

Exhibit 2. Updated Energy Fuels NAVPS

Asset (\$)		Value (\$MM)	\$ Per Share	% of NAV
Nichols Ranch	7.5%	\$99.1	\$0.64	11%
Alta Mesa	7.5%	\$140.0	\$0.90	15%
La Sal Complex	\$2/lb V2O5	\$46.9	\$0.30	5%
REE Business	7.5%	\$269.6	\$1.73	29%
White Mesa Mill	rep. value	\$175.0	\$1.12	19%
Total Mining Assets		\$730.5	\$4.69	79%
Cash, U3O8, V2O5 inventory		\$170.3	\$1.09	19%
CUR-TSXv Shares		\$19.5	\$0.13	2%
Current Debt		\$0.0	\$0.00	0%
Long Term Debt		\$0.0	\$0.00	0%
Future Debt Financing		\$0.0	\$0.00	0%
Net Asset Value		\$920.3	\$5.91	100%
P/NAV			1.26x	

Source: Cantor Fitzgerald

MAINTAINING BUY RATING AND TARGET

The MOU with NSP is an important and cost-effective “next step” in the development and de-risking of Energy Fuels’ REE business unit. That said, UUUU must still demonstrate its ability to economically produce separated REE oxides on-site at White Mesa, and NSP’s REE metal production technology is unproven at the commercial scale. We are therefore maintaining our \$270 MM valuation on Energy Fuels’ REE business at present. Based on an unchanged target multiple of 1.5x NAVPS, we maintain our Buy rating and \$8.75/C\$11.00/share price target on the Company.

Disclaimers

The opinions, estimates and projections contained in this report are those of Cantor Fitzgerald Canada Corporation. ("CFCC") as of the date hereof and are subject to change without notice. Cantor makes every effort to ensure that the contents have been compiled or derived from sources believed to be reliable and that contain information and opinions that are accurate and complete; however, Cantor makes no representation or warranty, express or implied, in respect thereof, takes no responsibility for any errors and omissions which may be contained herein and accepts no liability whatsoever for any loss arising from any use of or reliance on this report or its contents. Information may be available to Cantor that is not herein.

This report is provided, for informational purposes only, to institutional investor clients of Cantor Fitzgerald Canada Corporation, and does not constitute an offer or solicitation to buy or sell any securities discussed herein in any jurisdiction where such offer or solicitation would be prohibited. This report is issued and approved for distribution in Canada, CFCC., a member of the Investment Industry Regulatory Organization of Canada ("IIROC"), the Toronto Stock Exchange, the TSX Venture Exchange and the CIPF. This report is has not been reviewed or approved by Cantor Fitzgerald & Co., a member of FINRA. This report is intended for distribution in the United States only to Major Institutional Investors (as such term is defined in SEC 15a-6 and Section 15 of the Securities Exchange Act of 1934, as amended) and is not intended for the use of any person or entity that is not a major institutional investor. Major Institutional Investors receiving this report should effect transactions in securities discussed in the report through Cantor Fitzgerald & Co.

Non US Broker Dealer 15a-6 disclosure: This report is being distributed by (CF Canada/CF Europe/CF Hong Kong) in the United States and is intended for distribution in the United States solely to "major U.S. institutional investors" (as such term is defined in Rule 15a-6 of the U.S. Securities Exchange Act of 1934 and applicable interpretations relating thereto) and is not intended for the use of any person or entity that is not a major institutional investor. This material is intended solely for institutional investors and investors who Cantor reasonably believes are institutional investors. It is prohibited for distribution to non-institutional clients including retail clients, private clients and individual investors. Major Institutional Investors receiving this report should effect transactions in securities discussed in this report through Cantor Fitzgerald & Co. This report has been prepared in whole or in part by research analysts employed by non-US affiliates of Cantor Fitzgerald & Co that are not registered as broker-dealers in the United States. These non-US research analysts are not registered as associated persons of Cantor Fitzgerald & Co. and are not licensed or qualified as research analysts with FINRA or any other US regulatory authority and, accordingly, may not be subject (among other things) to FINRA's restrictions regarding communications by a research analyst with a subject company, public appearances by research analysts, and trading securities held by a research analyst account.

Potential conflicts of interest

The author of this report is compensated based in part on the overall revenues of Cantor, a portion of which are generated by investment banking activities. Cantor may have had, or seek to have, an investment banking relationship with companies mentioned in this report. Cantor and/or its officers, directors and employees may from time to time acquire, hold or sell securities mentioned herein as principal or agent. Although Cantor makes every effort possible to avoid conflicts of interest, readers should assume that a conflict might exist, and therefore not rely solely on this report when evaluating whether or not to buy or sell the securities of subject companies.

Disclosures as of December 15, 2021

Cantor *has* provided investment banking services or received investment banking related compensation from Energy Fuels Inc. within the past 12 months.

The analysts responsible for this research report *do not have*, either directly or indirectly, a long or short position in the shares or options of Energy Fuels Inc.

The analyst responsible for this report *has not* visited the material operations of Energy Fuels Inc. No payment or reimbursement was received for the related travel costs.

Analyst certification

The research analyst whose name appears on this report hereby certifies that the opinions and recommendations expressed herein accurately reflect his personal views about the securities, issuers or industries discussed herein.

Definitions of recommendations

BUY: The stock is attractively priced relative to the company's fundamentals and we expect it to appreciate significantly from the current price over the next 6 to 12 months.

BUY (Speculative): The stock is attractively priced relative to the company's fundamentals, however investment in the security carries a higher degree of risk.

HOLD: The stock is fairly valued, lacks a near term catalyst, or its execution risk is such that we expect it to trade within a narrow range of the current price in the next 6 to 12 months. The longer term fundamental value of the company may be materially higher, but certain milestones/catalysts have yet to be fully realized.

SELL: The stock is overpriced relative to the company's fundamentals, and we expect it to decline from the current price over the next 6 to 12 months.

TENDER: We believe the offer price by the acquirer is fair and thus recommend investors tender their shares to the offer.

UNDER REVIEW: We are temporarily placing our recommendation under review until further information is disclosed.

Member-Canadian Investor Protection Fund.

Customers' accounts are protected by the Canadian Investor Protection Fund within specified limits. A brochure describing the nature and limits of coverage is available upon request.