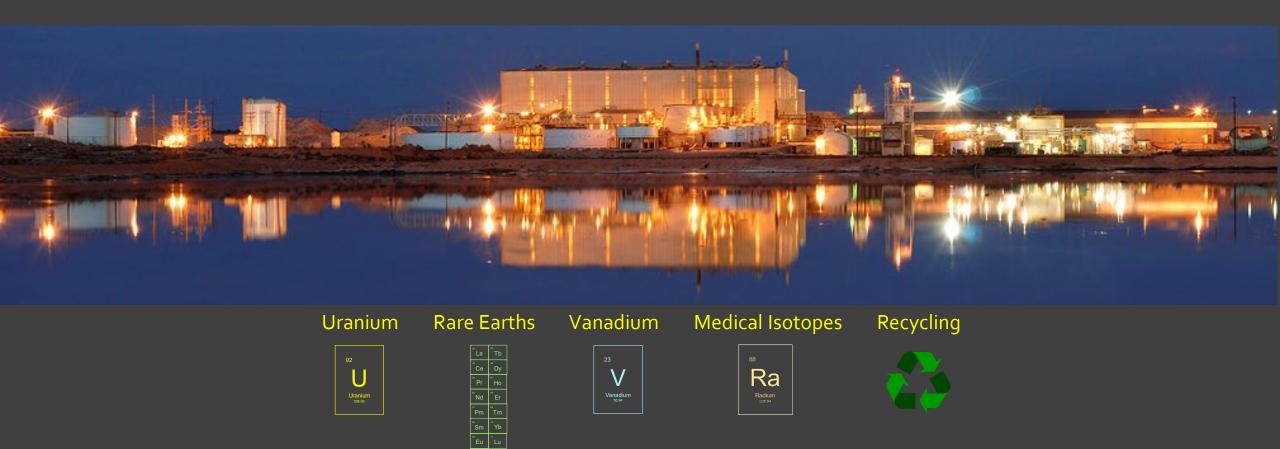


America's Leading Producer of Critical Materials for the Energy Transition



### Forward Looking Statements & Notice Regarding Technical Disclosure

Certain of the information contained in this presentation constitutes "forward-looking information" (as defined in the Securities Act (Ontario)) and "forward-looking statements" (as defined in the U.S. Private Securities Litigation Reform Act of 1995) that are based on expectations, estimates and projections of management of Energy Fuels Inc. ("Energy Fuels") as of today's date. Such forward-looking information and forward-looking statements included to the business strategy for Energy Fuels, Energy Fuels expectations with regard to current and future uranium, vanadium and rare earth element ("REE") market conditions; the uranium industry's ability to respond to higher demand; the impacts of recent market developments; business plans; outlook; objectives; expectations as to the prices of U3O8, V2O5, and REE's; expectations as to reserves, resources, results of exploration and related expenses; estimated future production and costs; changes in project parameters; the expected permitting and production time lines; the Company's belief that it has significant production growth potential and unmatched flexibility to scale-up production; the potential for additional business opportunities including vanadium, REE, alternate feed materials, and the cleanup of historic mines on the Navajo Nation and in the Four Corners Region of the U.S.; the potential for optimizing mining and processing; the Company's belief in its readiness to capitalize on improving markets; expectations with regard to the potential for U.S. government for U.S. apportment of the potential for optimizing mining and processing; the Company's belief in its readiness to capitalize on improving markets; expectations with regard to the potential for U.S. government for U.S. apportment of U.S. expectations with respect will be implemented and the timing of implementation; any expectation that the White Mesa Mill will be successful in producing REE Carbonate on a commercial basis; any expectation that Energy Fuels will be successful in fully integrating th

All statements contained herein which are not historical facts are forward-looking statements that involve risks, uncertainties and other factors that could cause actual results to differ materially from those expressed or implied by such forward-looking information and forward-looking statements. Factors that could cause such differences, without limiting the generality of the foregoing include: risks that the synergies and effects on value described herein may not be achieved; risks inherent in exploration, development and production activities; volatility in market prices for uranium, vanadium and REEs; the impact of the sales volume of uranium, vanadium and REEs; the ability to sustain production from mines and the mill; competition; the impact of change in foreign currency exchange; imprecision in mineral resource and reserve estimates; environmental and safety risks including increased regulatory burdens; changes to reclamation requirements; unexpected geological or hydrological conditions, a possible deterioration in political support for nuclear energy; changes in government regulations and policies, including trade laws and policies; demand for nuclear power, vanadium and REEs; replacement of production and failure to obtain necessary permits and approvals from government authorities; weather and other natural phenomena; ability to maintain and further improve positive labor relations, operating performance of the facilities, success of planned development projects; other development and operating risks, the Company not being suprensment projects of monazite sands; the ability of the White Mesa Mill to produce REE Carbonate to meet company to being suprensment or projects, of Nanoscale and Energy Fuels to finalize definitive agreements; the ability of Energy Fuels to potentially recover radioisotopes from its existing process streams for use in TAT therapeutics; and the future development of the TAT market. Should one or more of these risks or uncertainties materialize, or should underlying assumptions

Additional information about the material factors or assumptions on which forward looking information is based or the material risk factors that may affect results is contained under "Risk Factors" in Energy Fuels' annual report on Form 10-K, as amended, for the year ended December 31, 2021. The annual report on Form 10-K, as amended, is available on SEDAR at <a href="www.sedar.com">www.sedar.com</a> and on EDGAR at <a href="www.sec.gov">www.sec.gov</a>.

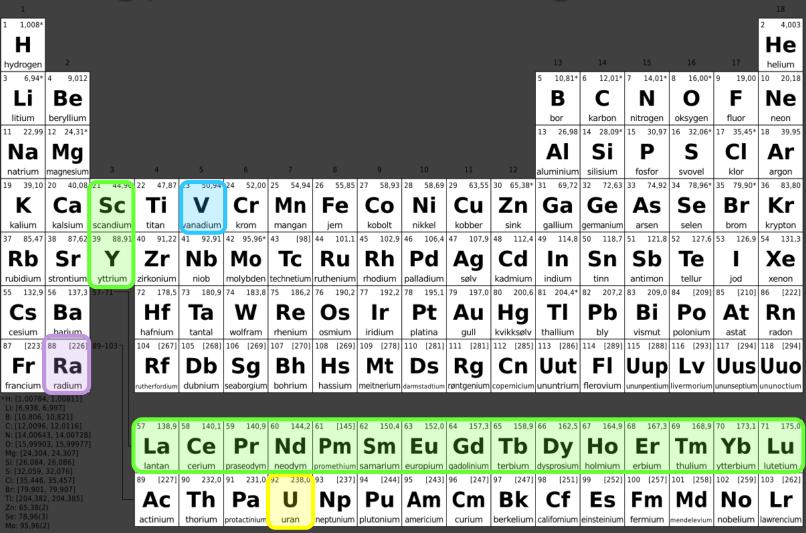
All technical information including mineral estimates constituting mining operations that are material to our business or financial condition included in this presentation, have been prepared in accordance with both 17 CFR Subpart 220.1300 and 229.601(b)(96) (collectively, "S-K 1300") and Canadian National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101") and are supported by pre-feasibility studies and/or initial assessments prepared in accordance with both the requirements of S-K 1300 and NI 43-101. S-K 1300 and NI 43-101 both provide for the disclosure of: (i) "Inferred Mineral Resources," which investors should understand have the lowest level of geological confidence of all mineral resources and thus may not be considered when assessing the economic viability of a mining project and may not be converted to a Mineral Resources," which investors should understand have a lower level of confidence than that of a "Measured Mineral Resource" and thus may be converted only to a "Probable Mineral Reserve"; and (iii) "Measured Mineral Resources," which investors should understand have sufficient geological certainty to be converted to a "Proven Mineral Reserve" or to a "Probable Mineral Resource are cautioned not to assume that all or any part of Measured or Indicated Mineral Resources will ever be converted into Mineral Resource exists or is economically or legally mineable, or that an Inferred Mineral Resource will ever be upgraded to a higher category.

## Our Mission

To responsibly produce the critical materials needed for the Energy Transition

## Several elements are used in advanced materials needed for clean energy & other technologies

Today, Energy
Fuels produces —
or has the ability
to produce —
many of these
materials



## Our products power tomorrow's energy technologies











## High Value Product Line

URANIUM – Fuel for nuclear energy; provides U.S. with 50% of zero carbon power

UUUU is the largest U.S. uranium producer, with more production facilities, capacity & experience than other US companies

RARE EARTHS – Critical elements used in powerful magnets needed for wind, EVs & other tech

UUUU today produces America's most advanced rare earth product, while developing fully integrated U.S.-centric supply chain

VANADIUM – Critical element used in high-strength steel & electrolyte in grid-scale batteries

UUUU was largest V producer in 2019; significant inventory & ability to quickly turn on production with improving markets

#### MEDICAL ISOTOPES – Critical for emerging cancer therapies

Developing ability to potentially recover radium from existing U and REE production, needed for emerging treatments & cures

#### RECYCLING – Uranium & vanadium bearing materials

Promoting sustainable sourcing; reducing carbon emissions & saving the world's scarce resources

#### FINANCIAL STRENGTH – Significant Cash + Inventory

\$122.3M working capital at 9/30/2022; industry-leading  $U_3O_8 \& V_2O_5$  inventory; selling Alta Mesa for \$120M (close by 2/15/2023)

## Our Products & Practices Address Key ESG Issues

<u>Uranium</u> Fuel for zero-carbon baseload nuclear energy

Rare Earths Critical for many clean energy technologies such as EVs, renewable energy, batteries & national defense

<u>Vanadium</u> High strength steel & other alloys; key for baseload renewable power via "grid-scale" batteries

<u>Medical Isotopes</u> Developing domestic supply chain for emerging cancer treatments now in human trials

**Recycling** Promote sustainable supply by recycling materials that contain natural uranium & vanadium

#### Support for Neighboring Communities:

- Committed local communities & environmental justice via support of the "San Juan County Clean Energy Foundation"
- Significant financial support for Native American STEM education & other initiatives

Sustainability Report describes our unwavering commitment to safety, sustainability & environmental protection

## 92 Uranium 238.03

## Core Business: Uranium



## Proven Uranium Production

LEADING U.S. PORTFOLIO – UP TO 2 MILLION LBS. OF SHORT-TERM, LOW-COST PRODUCTION

**Licensed & Developed Conventional** 



#### WHITE MESA MILL (UTAH) - PRODUCING

- Only uranium & vanadium mill in US plus REE's & recycling
- 39M lbs. of  $U_3O_8$  + 54M lbs. of  $V_2O_5$  produced since 1980



#### PINYON PLAIN MINE (ARIZONA) – STANDBY

- Licensed & substantially developed high-grade uranium mine
- Ore to be processed at the White Mesa Mill
- Likely the lowest-cost uranium mine in the U.S. today



#### NICHOLS RANCH ISR (WYOMING) – STANDBY

- 1.2 million lbs. of U<sub>3</sub>O<sub>8</sub> produced (2014 2019)
- 34 licensed wellfields provide long-term production profile



#### SHEEP MOUNTAIN (WYOMING) – LICENSED

- Probable Mineral Reserves of 18.3M lbs. of uranium (0.11% U<sub>3</sub>O<sub>8</sub>, 7.45M tons)
- Longer-term source of large-scale production (1.5 million lbs./year)

### BOOKING NEW URANIUM SALES CONTRACTS

#### PROVIDING NEW REVENUES & CASHFLOWS FOR 2023 - 2030

- Multiple market tailwinds enabling us to book long-term sales contracts with U.S. utilities at sustainable pricing
  - U.S. government providing support for nuclear energy (bipartisan)
  - Russia's invasion of Ukraine sharpening utility focus on security of supply
  - Intermediaries buying physical uranium
  - Transportation issues from Russia & Kazakhstan
- Energy Fuels offers buyers a reliable, low-cost source of U.S. uranium production
- Contracts entered to date:
  - Base quantity of 3.0 million pounds of total U<sub>3</sub>O<sub>8</sub> deliveries over next 8 years (starting in 2023)<sup>1</sup>
  - Up to a total of 4.1 million pounds of deliveries, if all options are exercised
  - Pricing formula maintains exposure to market upside, while limiting downside & adjusting for inflation



Jan. 2023: Energy Fuels sold 300,000 lbs. of U.S.-origin uranium to the U.S. government for establishment of strategic Uranium Reserve for \$18.5 million of total proceeds (\$61.57/lb)

## Market Position – Uranium

#### NORTH AMERICAN SPACE AS OF FEBRUARY 13, 20231

COMPANY	MARKET CAP (US\$M)	WORKING CAPITAL (US\$M)	TOTAL DEBT (US\$M)	URANIUM INVENTORY (M LBS.)	URANIUM	RARE EARTHS	VANADIUM	MEDICAL ISOTOPES	RECYCLING
Cameco	\$12,490	\$1,345	(\$747)	8.2	$\checkmark$	×	×	×	×
NexGen Energy	\$2,212	\$99²	(\$56) <sup>2</sup>	×	$\checkmark$	×	×	×	×
Uranium Energy Corp	\$1,442	\$37 <sup>4</sup>	\$0	o.8 <sup>4</sup>	$\checkmark$	×	×	×	×
<b>CF</b> ENERGY FUELS	\$1,120	\$122 (+ \$120 <sup>5</sup> )	<b>\$</b> 0	0.8	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	✓
Denison Mines	\$1,098	\$38²	\$0	2.5	$\checkmark$	×	×	×	×
Fission Uranium	\$437	\$40 <sup>2</sup>	(\$6)	×	$\checkmark$	×	×	×	×
Ur-Energy	\$278	\$43	(\$12)	0.3	$\checkmark$	×	×	×	×
Peninsula Energy	\$127 <sup>3</sup>	\$28	\$0	0.3	$\checkmark$	×	×	×	×

<sup>&</sup>lt;sup>1</sup> This chart reflects the most recent publicly available information; Energy Fuels' information is disclosed in its Form 10-Q for the quarter ended September 30, 2022

<sup>&</sup>lt;sup>5</sup> Energy Fuels is selling its Alta Mesa Project for \$120 million to enCore Energy, with closing expected on Feb. 14, 2023. Purchase price to include \$60M cash + \$60M convertible note.



<sup>&</sup>lt;sup>2</sup> Cdn\$ = US\$0.749

<sup>&</sup>lt;sup>3</sup> Au\$ = US\$0.697

<sup>4</sup> Announced additional purchases of 3.1 million lbs. uranium on the open market with deliveries to occur during 2023 - 2026.

La	<sup>65</sup> Tb
<sup>58</sup> Ce	Dy
Pr	<sup>67</sup> Но
Nd	Er
Pm	Tm
Sm	Yb
Eu	Lu
Gd	

# Growth Driver: Rare Earths

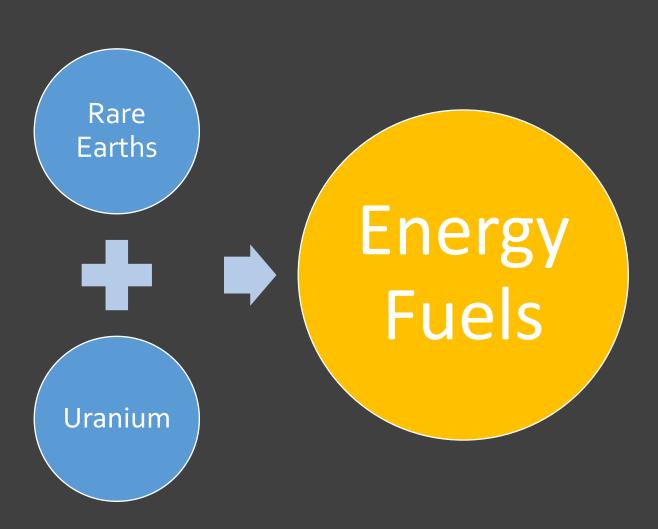




## Complimentary Business Opportunities

## Energy Fuels is "filling the gap" in U.S. rare earth element (REE) production

- The highest-value REE-bearing minerals, including monazite, are naturally radioactive when they are mined (due to presence of naturally-occurring uranium & other radionuclides)
- Energy Fuels' White Mesa Mill is the only existing facility in North America currently processing monazite, recovering uranium, removing other impurities & producing advanced REE products

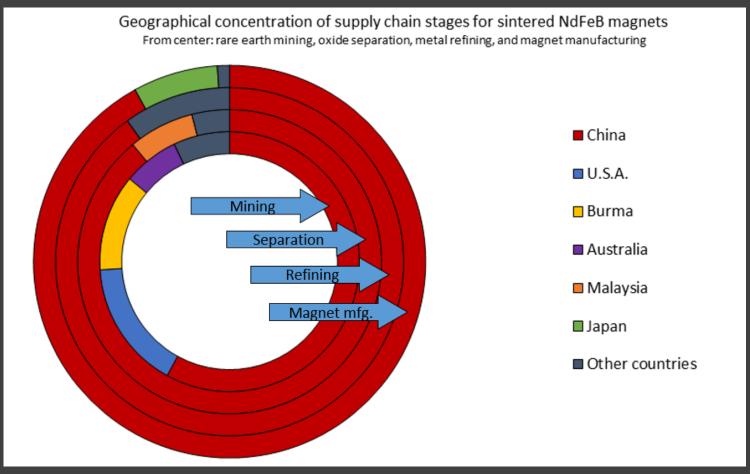


#### Global REE Market

#### **DOMINATED BY CHINA**

The value of the REE materials produced increases as you move from the inner to outer circles

 Energy Fuels can restore the mining, separation & possibly the refining steps



From U.S. Department of Energy report, "Rare Earth Permanent Magnets: Supply Chain Deep Dive Assessment", dated February 24, 2022



April 2020

Nov. 2021



Feb. 2023



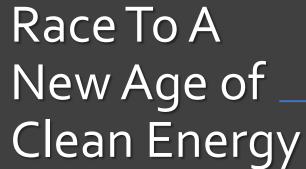
2026<sup>1</sup>

Announced entry into REE sector

Began pilot-scale REE separation; producing 99.8% purity NdPr oxide Closed acquisition of "Bahia Project"; 58.3 square mile heavy mineral sand (HMS) project in Brazil that contains significant quantities monazite (REE), titanium (ilmenite/rutile) & zirconium (zircon)

#### "Phase 2" Separation

Produce larger-scale "light" REE products (1,500 – 3,000+ MT NdPr oxide per year)



Began processing monazite to "mixed REE carbonate" – the most advanced REE material being produced in the U.S. today

July 2021

#### High-Purity Mixed REE Carbonate

Began commercialscale REE separation & production of mixed REE carbonate, containing 32% - 34% NdPr

Mar. 2022

#### "Phase 1" Separation

Produce "light" REE products at White Mesa Mill (500 – 1,000 MT of NdPr oxide per year, 250,000 – 1M EV's per year)

2023/24<sup>1</sup>

#### "Phase 3" Separation

Produce "heavy" separated REE products, including Dy and Tb.

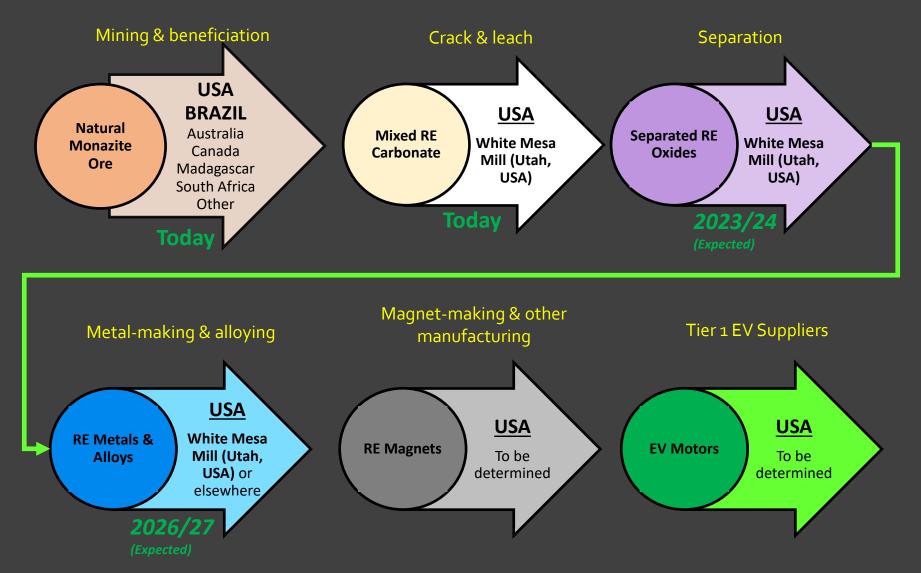


2027<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Expected production, subject to successful construction, commissioning, and receipt of sufficient monazite and REE feed

## Capital Efficient Rare Earth Supply Chain

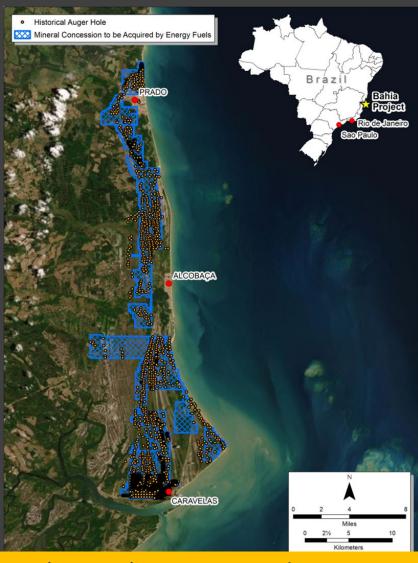
CENTERED IN THE U.S.



## THE "BAHIA PROJECT" (BRAZIL)

#### POTENTIAL TO PROVIDE MONAZITE FEED TO MILL FOR DECADES

- Completed acquisition in February 2023
- A low-cost, long-term source of REE
  - Potential to produce 3,000 10,000 MT monazite sand per year (1,500 5,000 MT TREO)1
- 58.3 square mile land position (~37,300 acres) on 17 mineral concessions
- Well-defined HMS mineralization for titanium (ilmenite & rutile), zirconium (zircon)
   & monazite (rare earths)
  - Mineralization at and near surface
  - ~3,300 historic augur holes drilled to water table (~5.86 meters depth)
- Several concessions have valid exploration & mining permits in place
- Sonic drilling program underway to further define the HMS & REE resources
  - Confirming mineralization continues below water table
  - Phase 1 drilling to total 2,250 meters; Phase 2 drilling to commence in Q3-2023
  - Plan to release S-K 1300 (US) and NI 43-101 (Canada) reports in 2024



Energy Fuels has proven our ability to process monazite sand into advanced REE materials

Now, we control a potentially low-cost, long-term source of "elements"

1

## Energy Fuels' Rare Earth Production WHITE MESA MILL (UTAH)



Energy Fuels' personnel at the White Mesa Mill

1 tonne "supersacks" of highpurity mixed RE carbonate





72-stage pilot-scale solvent extraction (SX) REE separation capable of producing 1-2 kg of NdPr oxide per day

Monazite "crack-and-leach" ongoing at Energy Fuels' White Mesa Mill

## Energy Fuels Has Many Unique Advantages

#### OFFERING REAL POTENTIAL FOR SHORT-TERM, LOW-COST REE PRODUCTION

- 1. We currently have the licenses & infrastructure to handle the radionuclides in monazite
  - We can recover the uranium (and possibly the thorium & radium) as significant value-adds these are a problem for others
- 2. Monazite has much more value relative to other REE feeds
  - ~30% higher in NdPr + ~95% higher in "heavy" REEs with higher recoveries of magnetic REEs versus bastnaesite
- 3. Monazite is already mined in the U.S. & around the world as a low-cost HMS byproduct
  - Most mining costs carried by primary zircon & titanium production
- 4. Monazite is more straightforward to process than other REE minerals
  - Chemically easier to recover the REEs from the phosphates in monazite vs the fluoro-carbonates in bastnaesite
- 5. Low cost & capital efficient
  - Using existing licenses, personnel & facilities saves considerable time & money
- 6. Energy Fuels has used solvent extraction (SX) processing technology for uranium & vanadium recovery for 40+ years
  - Relatively easy for us to pivot & apply existing SX know-how to REE recovery & separation
- 7. Focusing on proven REE separation technologies using SX
  - We are not attempting to license & deploy new separation technologies
- 8. Utah is a relatively low-cost & supportive jurisdiction in which to operate
  - Compared to other locations where REEs are produced (California, Australia, etc.)

The #1 challenge to "unlocking" the value of monazite has been the radionuclides.

Energy Fuels has solved this challenge.



## Market Position – Rare Earths

#### GLOBAL SPACE AS OF FEBRUARY 13, 2023

COMPANY MARKET CA (US\$MM)		MARKET CAP (US\$MM)	P PRIMARY ORE CONCENTRATE MINERAL "BASKET VALUE" (US\$)3		ORE PRODUCTION		HIGH-PURITY MIXED REE CONCENTRATE PRODUCTION		REE SEPARATION	
9	MP Materials	\$5,694	Bastnaesite (US-California)	\$7,484	CURRENT	PLANNED	CURRENT	PLANNED	CURRENT	PLANNED
	Lynas	\$5,313	Monazite (Australia)	\$17,964	$\checkmark$		$\checkmark$		$\checkmark$	
Producers	Iluka Resources	\$3 <b>,</b> 294 <sup>5</sup>	Monazite (Australia)	\$18,519	$\checkmark$		×	<b>✓</b>	×	✓
I 4	<b>CF</b> ENERGY FUELS	\$1,120	Monazite (US–Georgia)	\$20,503	×	1	$\checkmark$		×	✓
	Neo Performance Materials <sup>2</sup>	\$392 <sup>5</sup>	n/a	n/a	×	2	×	2	$\checkmark$	
				IN SITU ORE VALUE PRE- BENEFICIATION (US\$) <sup>4</sup>						
U.S. Developers	Texas Mineral Resources	\$100	Bastnaesite (US-Texas)	\$34	×	<b>√</b>	×	<b>√</b>	*	✓
	Rare Element Resources	u ~/ \	Bastnaesite (US-Wyoming)	\$921	×	✓	×	✓	×	✓
	Ucore Rare Metals	\$46	Bastnaesite (US-Alaska)	\$333	×	<b>√</b>	×	✓	×	✓

¹ Is currently not a miner; purchasing monazite from HMS operators and processing in Utah; recently purchased REE project in Brazil



<sup>&</sup>lt;sup>2</sup> Neo purchases mixed REE concentrates (including from Energy Fuels); does not intend to be a miner or produce mixed REE concentrate

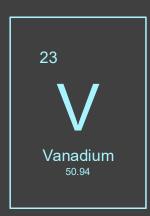
<sup>&</sup>lt;sup>3</sup> Ore concentrate value, <u>after beneficiation</u>

<sup>4</sup> In-situ ore values, before beneficiation

<sup>5</sup> Cdn\$ = US\$0.749

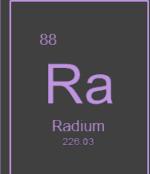
<sup>&</sup>lt;sup>6</sup> Au\$ = US\$0.697

## Longer Term Growth: Vanadium & Medical Isotopes









## Strong Position in Vanadium & Medical Isotopes

- Vanadium is used in steel, high-strength alloys, chemicals & grid-scale battery technologies
  - Energy Fuels' White Mesa Mill is a significant U.S. producer of vanadium (V<sub>2</sub>O<sub>5</sub>) when market conditions warrant
  - Produced 1.9 million pounds of high-purity (99.7%+) V<sub>2</sub>O<sub>5</sub> at the White Mesa Mill from tailings solutions
  - Sold about 575,000 lbs. at an average price of \$13.44/lb. during 2022
  - Currently hold ~1 million lbs. in inventory; selectively selling into market strength
  - We can quickly recover another 1.5M to 3.0M+ lbs. of  $V_2O_5$  from mill tailings solutions

#### Medical isotopes

- Several isotopes required for emerging cancer therapies ("targeted alpha therapy") naturally occur in the White Mesa Mill's existing uranium & REE process streams
- We are evaluating the potential to recover radium to create a U.S. supply chain for this critical element

## Financials



## Financial Performance

#### Strong Balance Sheet

- \$122 million of working capital at September 30, 2022
  - \$77.1 million of cash & cash equivalents
  - \$11.6 million of marketable securities
  - \$27.3 million of product inventory (worth \$44.1 million at today's commodity prices)
  - Sold \$18.5 million of inventory to U.S. uranium reserve during Q1-2023
  - Investments in Consolidated Uranium Inc. (CUR.V) & Virginia Energy Resources (VUI.V)
  - Zero debt
  - Additional \$120 million: We are selling Alta Mesa Project for \$120M (\$60M cash + \$60M 2-year convertible note); closing expected on 2/15/2023
- Preparing for Growth in Uranium & Rare Earth Businesses
  - Net loss of \$9.3 million during Q3-2022
    - Attributable to increases in development, permitting & land holding costs, along with costs associated with the Company's efforts to enhance business processes & operational readiness for growth in uranium & rare earth businesses

## Hidden Assets



Working Capital<sup>1</sup>

847,000 987,000

Lbs. uranium inventory<sup>1</sup>

Lbs. vanadium inventory<sup>1</sup>

Inventory worth significantly more than cost at current prices

	Value on Books (\$/Lb) <sup>1</sup>	Current Price (\$/Lb) <sup>2</sup>	% Up/ (Down)
U <sub>3</sub> O <sub>8</sub>	\$29.19	\$50.75	+74%
V <sub>2</sub> O <sub>5</sub>	\$6.09	\$10.80	+77%

<sup>1</sup> As of September 30, 2022, including purchase of 301,000 lbs. of US-origin U<sub>3</sub>O<sub>8</sub> in Q4-2022 and Q1-2023, sale of 300,000 lbs. of US-origin U<sub>3</sub>O<sub>8</sub> in Q1-2023, and production of 162,000 lbs. in Q4-2022; not including \$120M from Alta Mesa sale.
2 Per TradeTech (uranium) and Fastmarkets (vanadium)

## Outlook

#### 2022 Production, Sales & Inventory

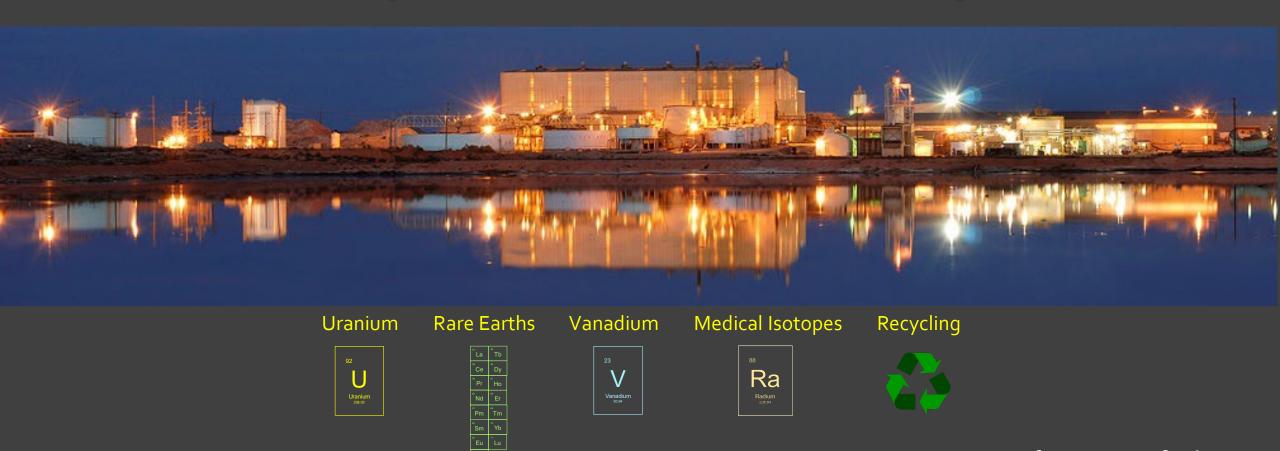
- 162,000 lbs. of actual uranium production (exceeded guidance of 130,000 140,000 lbs.)
- Current uranium inventory of 847,000 lbs. (upper end of guidance)
- Approx. 205 tonnes of mixed REE carbonate production containing approx. 95 tonnes of TREO
  - During Q4-2022, the Company expects to receive approx. 640 tonnes of monazite, which will be processed into mixed REE carbonate in Q4-2022 and Q1-2023
- Uranium sales revenues starting in 2023 from Uranium Reserve (\$18.5M), plus contract sales

#### Multi-year visibility:

- New uranium sales contracts with deliveries beginning in 2023
- Sale of separated NdPr oxide expected in 2024
- Securing monazite feed for REE production
- Continued selective sales of vanadium as market conditions warrant



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