



Clean Energy Starts With Us

August 2024

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 include but are not limited 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 support of U.S. uranium miners; global uranium supply risks; expected worldwide uranium supply and demand fundamentals; any expectation that the proposed Uranium Reserve will continue to be implemented and if implemented, the manner in which it 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 developing U.S. separation, or other value-added U.S. REE production capabilities at the White Mesa Mill, or otherwise; any expectation that the Company, Chemours and Neo will be successful in jointly developing a fully integrated U.S.-European REE supply chain; any expectation that the Company will be successful in fully integrating the U.S REE supply chain in the future; any expectation with respect to the future demand for REEs; any expectation with respect to the quantities of monazite ore to be acquired by Energy Fuels, the quantities of REE Carbonate or separated REE oxides to be produced by the White Mesa Mill or the quantities of contained TREO in the Mill’s REE carbonate; any expectation as to future exploration results for the Bahia Project; Any expectation that the Base Resources transaction ' will close; any expectation that the Donald Joint Venture will be formed; any expectation that fiscal terms and a stability agreement will be successfully negotiated with the government of Madagascar; any expectation that all government approvals will be obtained, including lifting of the current suspension imposed on the Toliara project, by the Madagascar government, such that development may proceed at the Toliara Project; any expectation that the recovery of monazite will be added to the permits for the Toliara Project; any expectation that all permits will be obtained for the Donald Project; any expectation that the Company will be successful in commissioning its Phase 1 REE Separation Facility at the White Mesa Mill; any expectation that the Company will be successful in permitting and developing the planned Phase 2 and Phase 3 REE Separation Facility at the White Mesa Mill;; and any expectation that the Company will be successful in recovering radioisotopes for use in emerging TAT cancer therapeutics or that the program will be economically viable.

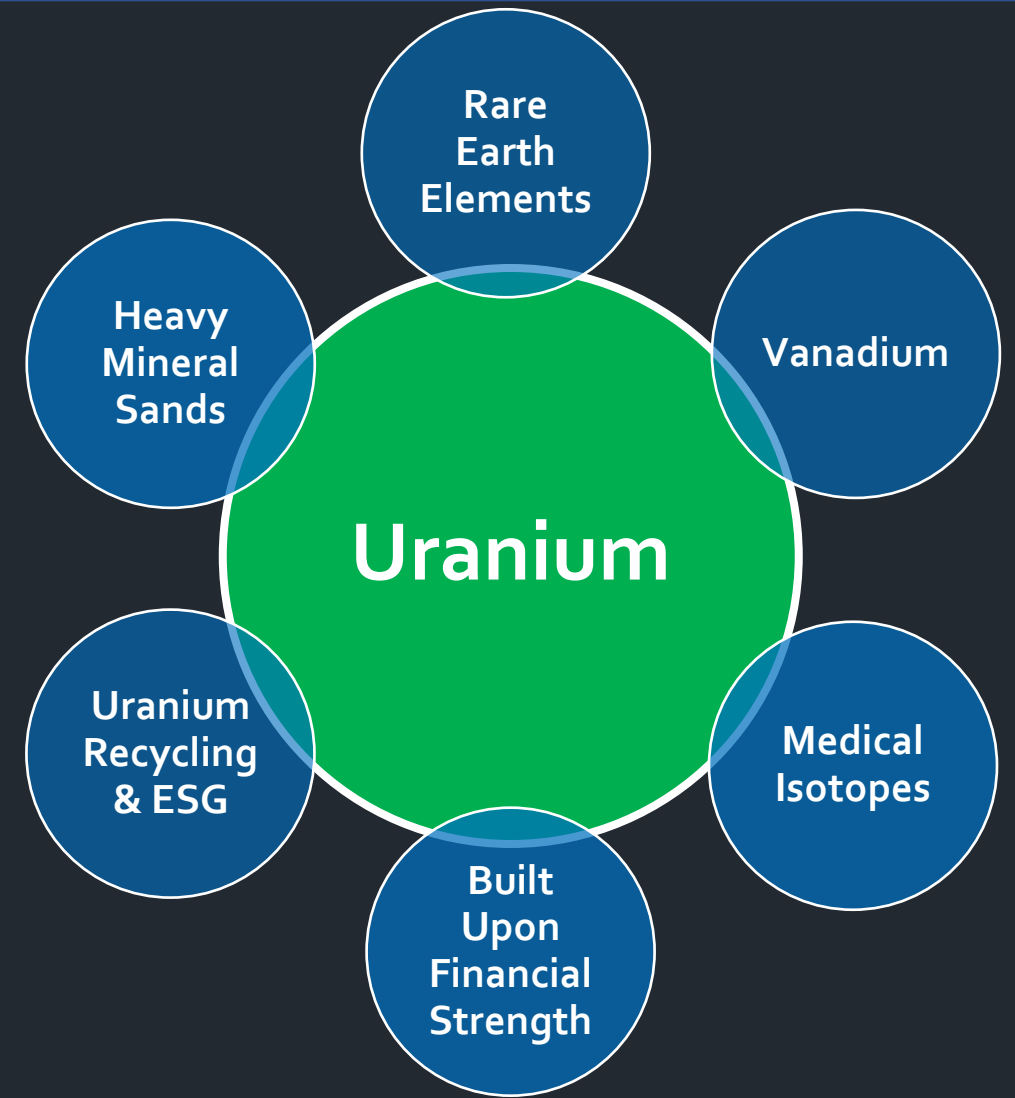
All statements contained herein which are not historical facts are forward-looking statements that involve risks, uncertainties and other factors that could cause actual results to differ materially from those expressed or implied by such forward-looking information and forward-looking statements. Factors 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 potential 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 successful in selling any uranium into the proposed Uranium Reserve at acceptable quantities or prices, or at all in the future; available supplies of monazite sands; the ability of the White Mesa Mill to produce REE Carbonate or separated REE oxides to meet commercial specifications on a commercial scale at acceptable costs; market factors, including future demand for REEs; Actions or inactions by foreign governments, such as the government of Madagascar; instability of foreign governments; the inability to receive or delays in the receipt of all required permits for the Toliara project and the Donald Project, including lifting of the current suspension relating to development at the Toliara Project; 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 prove incorrect, actual results may vary materially from those anticipated, believed, estimated or expected. Although Energy Fuels believes that the assumptions inherent in the forward-looking statements are reasonable, undue reliance should not be placed on these statements, which only apply as of the date of this presentation. Energy Fuels does not undertake any obligation to publicly update or revise any forward-looking information or forward-looking statements after the date of this presentation to conform such information to actual results or to changes in Energy Fuels’ expectations except as otherwise required by applicable legislation.

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 for the year ended December 31, 2023. The annual report on Form 10-K is available on SEDAR at www.sedar.com and on EDGAR at www.sec.gov.

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 Reserve; (ii) “Indicated 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 Reserve.” Investors are cautioned not to assume that all or any part of Measured or Indicated Mineral Resources will ever be converted into Mineral Reserves as defined by S-K 1300 or NI 43-101. Investors are cautioned not to assume that all or any part of an Inferred Mineral Resource exists or is economically or legally mineable, or that an Inferred Mineral Resource will ever be upgraded to a higher category.

Our Business Objective

Creating a long-term, profitable U.S. critical mineral company – centered on uranium – that produces several advanced materials needed for the clean energy transition



"Our Why"

We are America's leading experts in recovering critical elements from naturally-radioactive ores

High Value Product Line



In-demand materials central to the clean energy transition

URANIUM – UUUU is a leading U.S. producer of U_3O_8 , having produced 2/3 of all U.S. uranium since 2017
Starting production at 3 uranium mines, planning to achieve an expected run-rate of 1.1 – 1.4 million lbs. of U_3O_8 per year by end of 2024

RARE EARTHS – Critical elements used in powerful magnets needed for EVs, wind & other technologies
Installed new circuit with the capacity to produce up to 1,000 tpa of separated NdPr; ability to power up to 1 million EVs annually

HEAVY MINERAL SANDS – Rare earth, titanium & zirconium minerals
Low-cost monazite (rare earths + uranium) sources, as a byproduct of ilmenite, rutile & leucosene (titanium) & zircon (zirconium)

VANADIUM – Critical element used in high-strength steel, aerospace and grid-scale batteries
The largest primary producer of V_2O_5 in US; significant inventory & ability to quickly ramp up production in strong markets

RECYCLING – Uranium & vanadium bearing materials
Promoting sustainable sourcing; reducing carbon emissions & saving the world's scarce resources

BUILT UPON FINANCIAL STRENGTH

No debt, significant cash & inventory & ongoing uranium sales

\$200.94M in working capital as of 6/30/2024, including \$171.25M of cash + marketable securities, and large U_3O_8 & V_2O_5 inventories

Our Products Power Many Clean Energy Technologies



Nuclear Fuel Assembly



Electric Vehicle Drivetrain



Wind Turbine



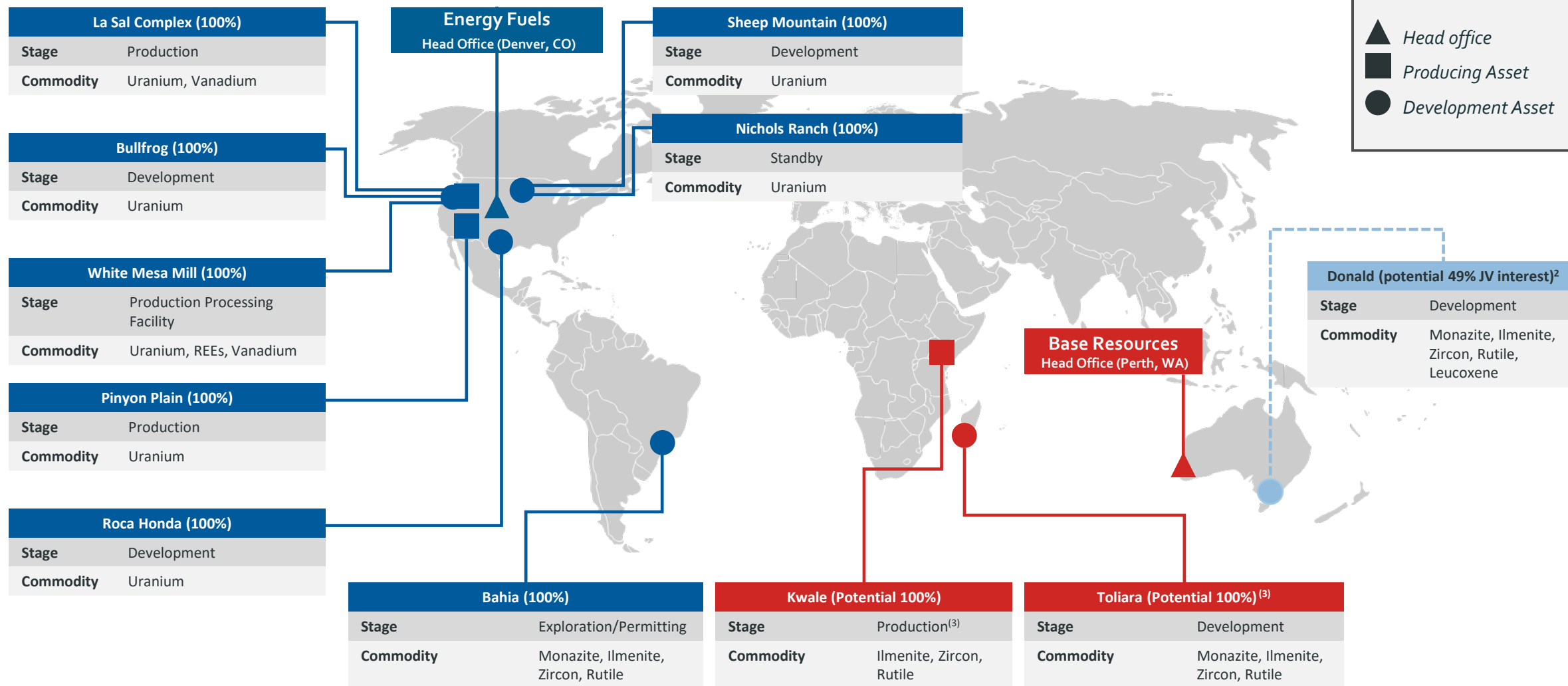
Vanadium Flow Batteries



F-35A Jet

Diversified Asset Portfolio for Long-Term Value

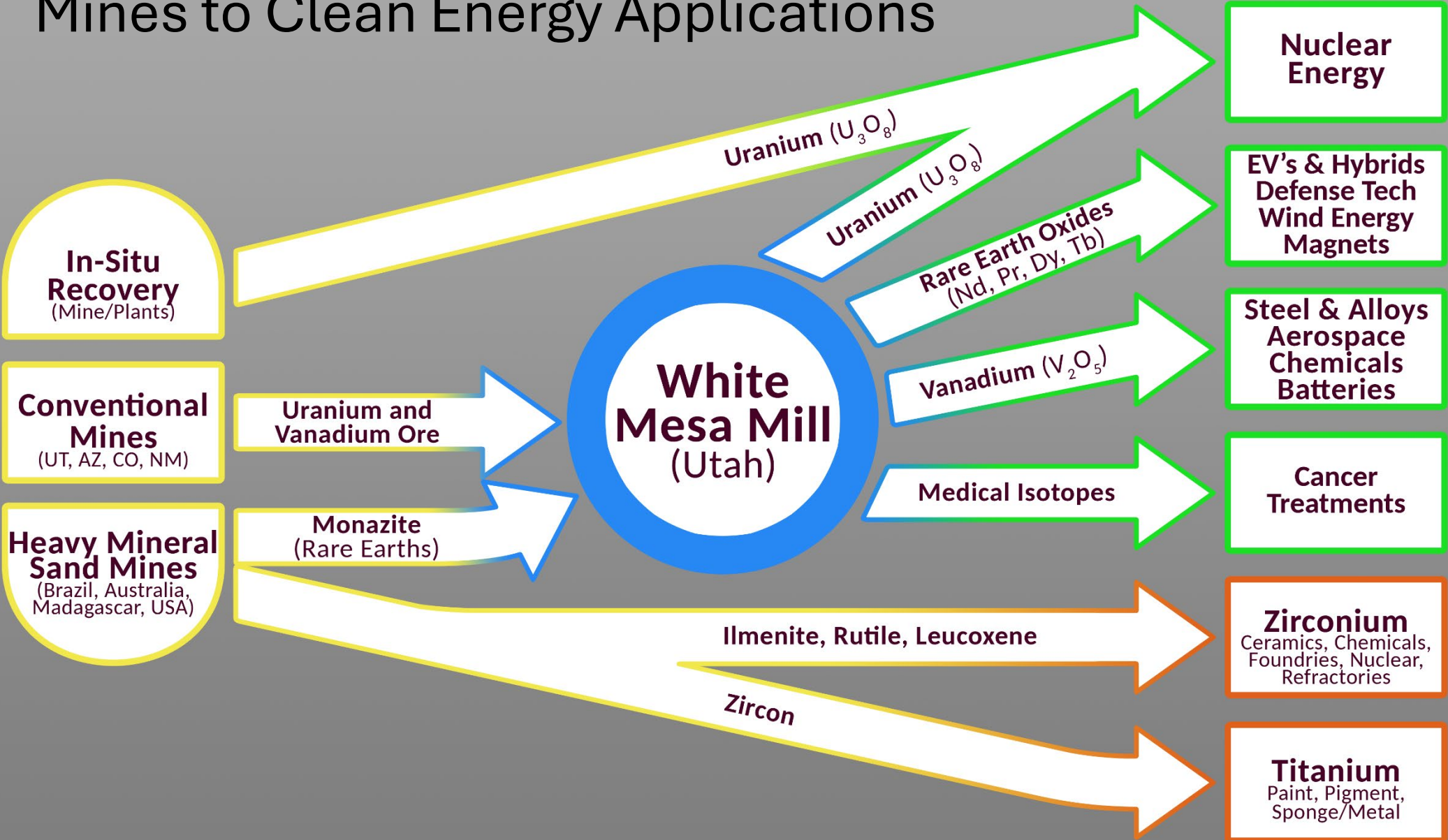
Across geography, commodity and stage of development



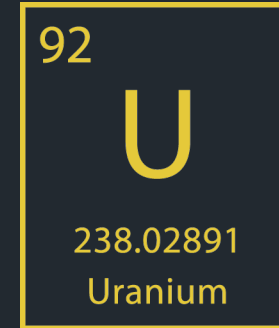
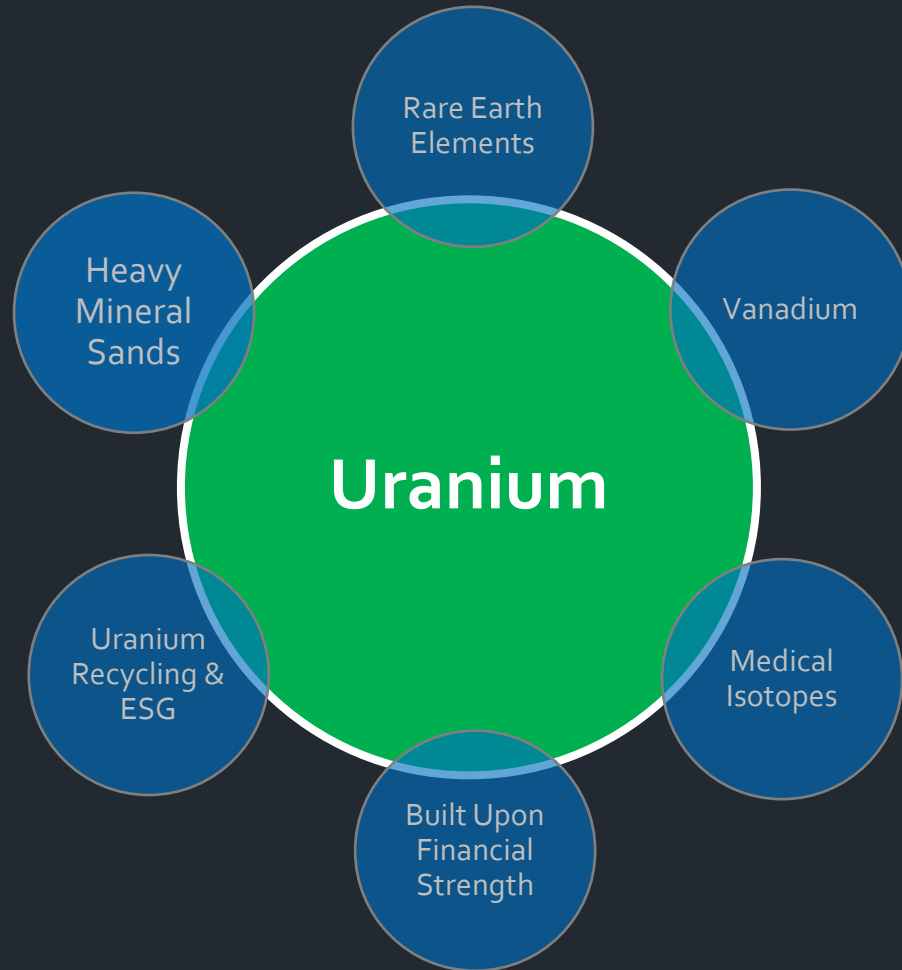
Notes: (1) Only projects with current NI 43-101 Resources / Reserves shown (2) Energy Fuels entered a Joint Venture Agreement on June 4, 2024 with Astron Corporation Limited (ASX:ATR) to potentially earn up to a 49% joint venture interest in the Donald Project. There is no certainty that any binding agreement will be reached or that such interest will ultimately be obtained. (3) Announced agreement to acquire of Base Resources on April 22, 2024. Kwale mining operations expected to end in December 2024.

Source: Company announcements & website

Mines to Clean Energy Applications



Core Business:



U.S. Uranium Production



Combine for up to 2 million lbs. of short-term, low-cost production

White Mesa Mill (Utah)



Production

Nichols Ranch ISR (Wyoming)



Pre-Production

Pinyon Plain Mine (Arizona)



Production

La Sal Complex (Utah)



Production

Development Pipeline

Large-scale future uranium production



Sheep Mountain (Wyoming)



Development

Roca Honda (New Mexico)



Development

Henry Mountains – Bullfrog (Utah)



Development¹

Large-Scale In-Ground Uranium Resources

- Nearly 70 million pounds of combined uranium resources¹
- Combined potential to produce roughly 6 million pounds of uranium per year
- Sheep Mountain is fully permitted for mining; requires processing facility
- Roca Honda & Bullfrog are in permitting

¹ See Resource Table at end of this presentation

Uranium Sales

Revenues & Cashflows Through 2030

Multiple market tailwinds enabling new spot & 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, and new Russian uranium ban, sharpening utility focus on security of supply
- Intermediaries buying physical uranium
- Transportation issues from Russia & Kazakhstan
- **Spot price at \$86.50 per pound on July 31, 2024¹**

Energy Fuels offers buyers a reliable, low-cost source of U.S. uranium production

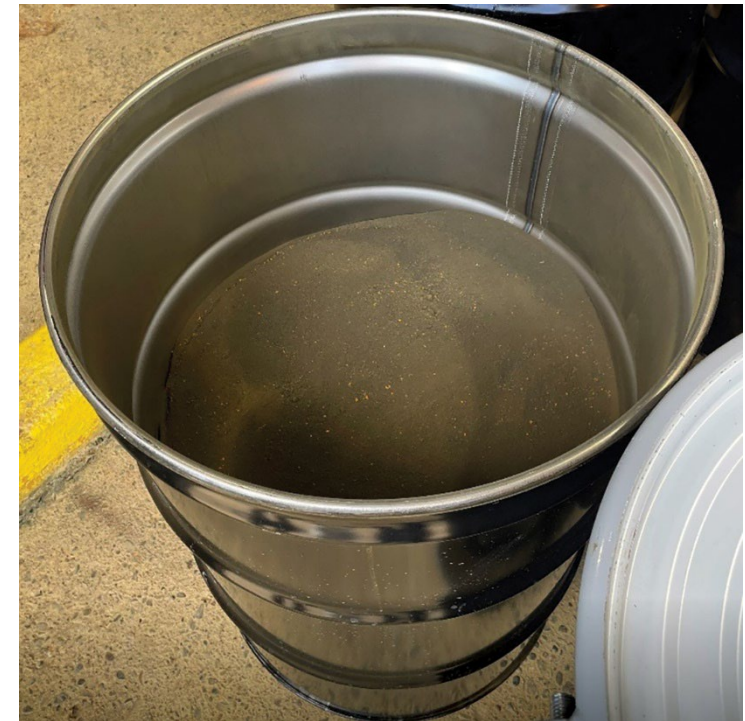
Four (4) long-term contracts with U.S. utilities (to date):

- Base quantity of 2.8 million pounds of remaining U_3O_8 deliveries through 2030
- Price formula maintains exposure to market upside, while limiting downside & adjusting for inflation
- Seeking additional contracts

Securing spot sales in periods of market strength

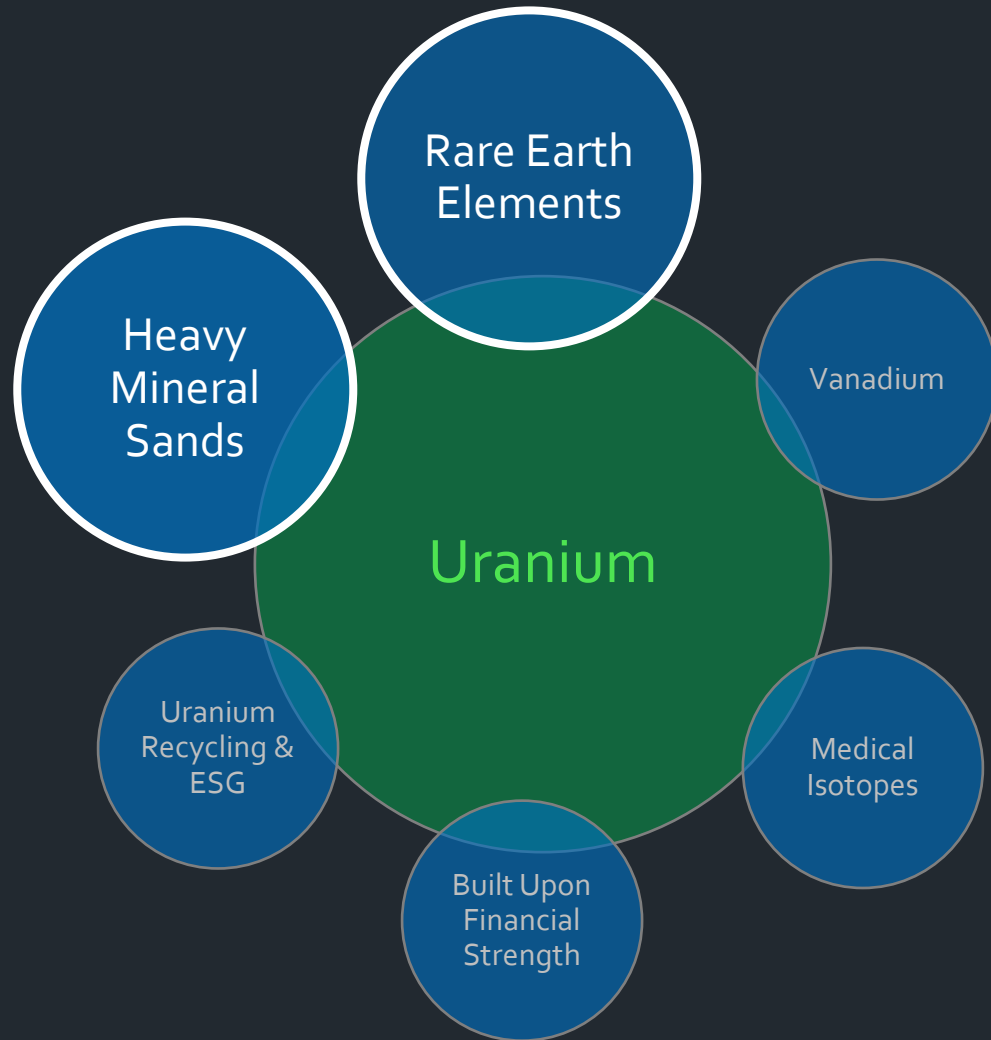
- Sold 100,000 pounds of uranium in Q2-2024 for **\$85.90** per pound

U_3O_8 Produced at the
White Mesa Mill



¹ TradeTech

Growth Drivers:



57 La 138.90547 Lanthanum	58 Ce 140.116 Cerium	59 Pr 140.90766 Praseodymium	60 Nd 144.242 Neodymium	61 Pm 145 Promethium	62 Sm 150.36 Samarium	63 Eu 151.964 Europium	64 Gd 157.25 Gadolinium
65 Tb 158.92535 Terbium	66 Dy 162.500 Dysprosium	67 Ho 164.93033 Holmium	68 Er 167.259 Erbium	69 Tm 168.93422 Thulium	70 Yb 173.054 Ytterbium	71 Lu 174.9668 Lutetium	



Rare Earth Production in the U.S.



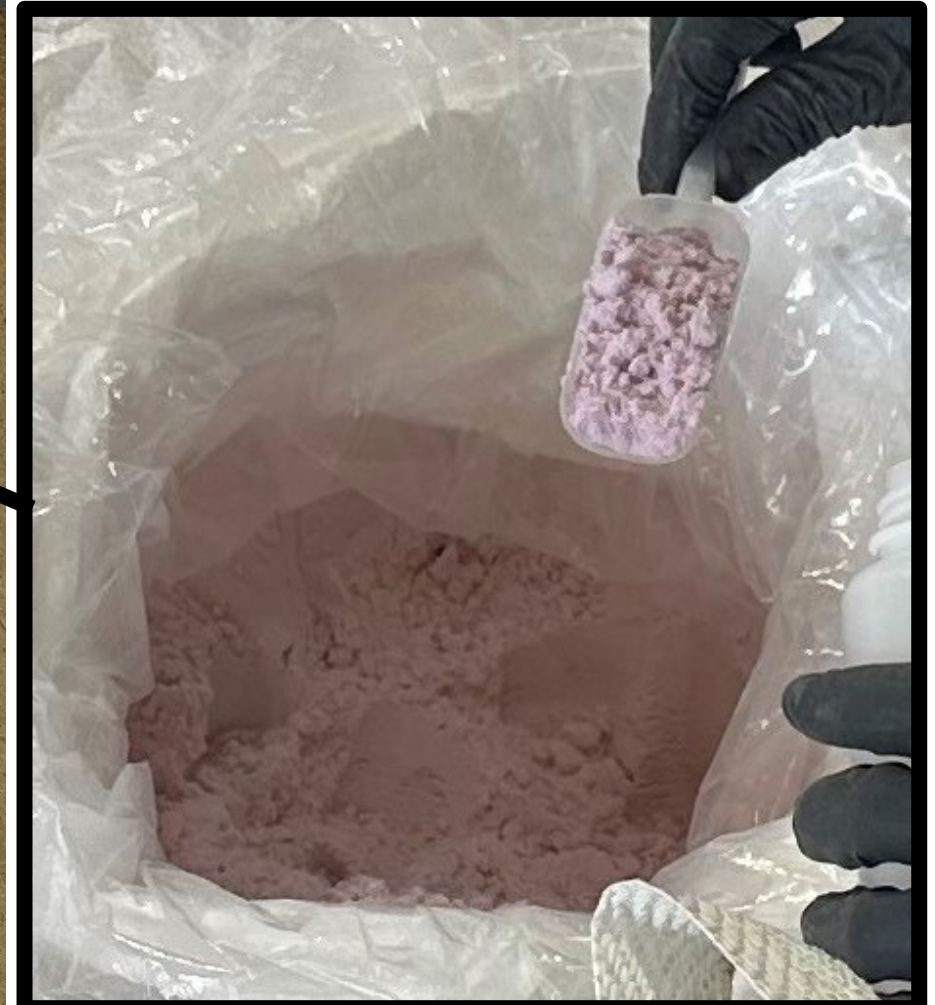
Processing a mineral called “Monazite” recovered as a byproduct of HMS mining

- Monazite has superior distributions & grades of the “magnet” REEs (NdPr, Dy, Tb) compared to other minerals
- Monazite contains higher concentrations of uranium & thorium (though, roughly similar to uranium ores)
- Energy Fuels’ White Mesa Mill in Utah is the **only facility in the USA** able to process Monazite & produce advanced REE materials, with 40 years of relevant experience and expertise unparalleled in the industry
 - We recently completed “Phase 1” REE facility with capacity to produce up to 1,000 tpa of separated NdPr
 - Expect to produce 25 – 35 tonnes of ‘on-spec’ separated NdPr in 2024
 - Designing capacity to produce 4,000 – 6,000 tpa NdPr + 200 – 300 tpa of Dy and Tb (enough for up to 6 million EVs per year)
- Monazite is recovered as a low-cost byproduct of HMS mining
 - We are securing HMS mines around the World to supply Monazite to the White Mesa Mill for REE separation in the USA

Diversifying into REE’s without diminishing industry-leading uranium production capabilities

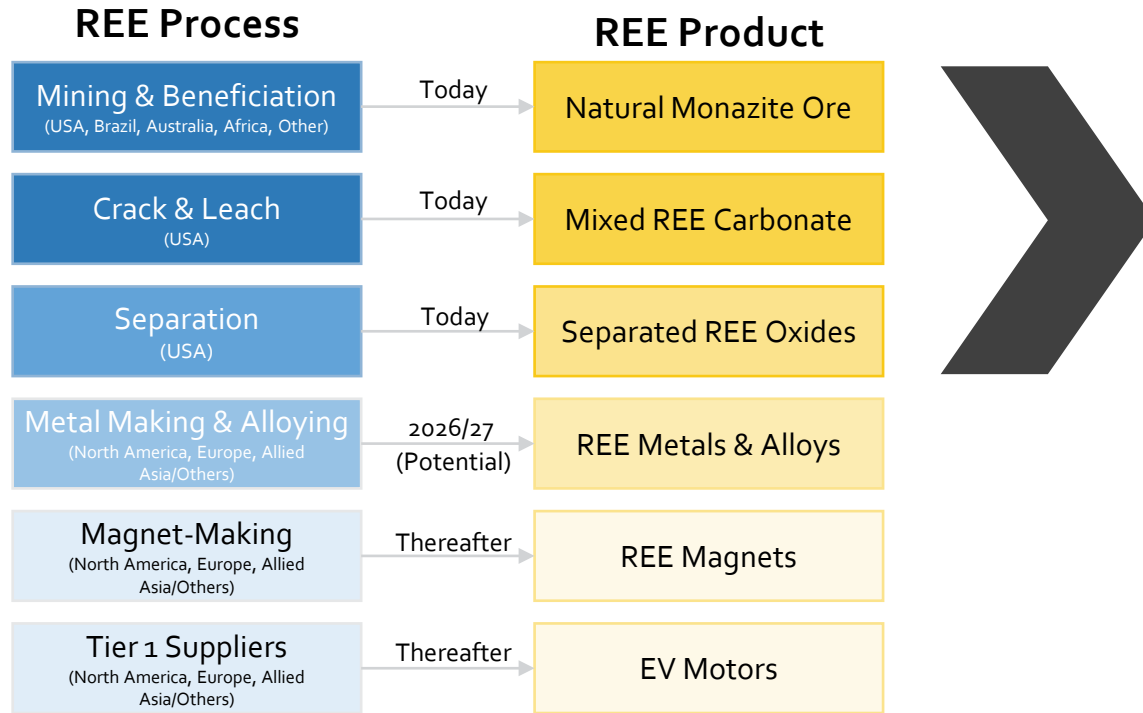


1st batch of "on-spec" separated NdPr produced at the White Mesa Mill in Utah (June 2024)

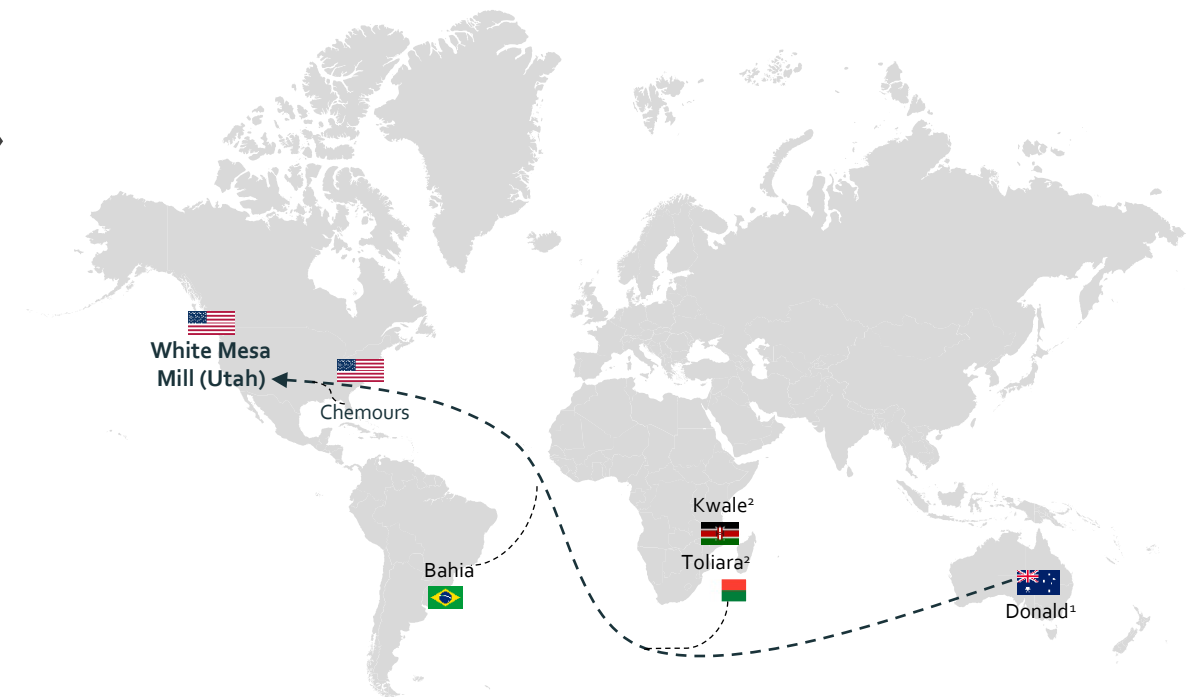


Innovative U.S.-Centered REE Supply Chain

We will process low-cost, byproduct Monazite from HMS Mines & produce separated REE in Utah, USA



Capital Efficient Rare Earth Supply Chain

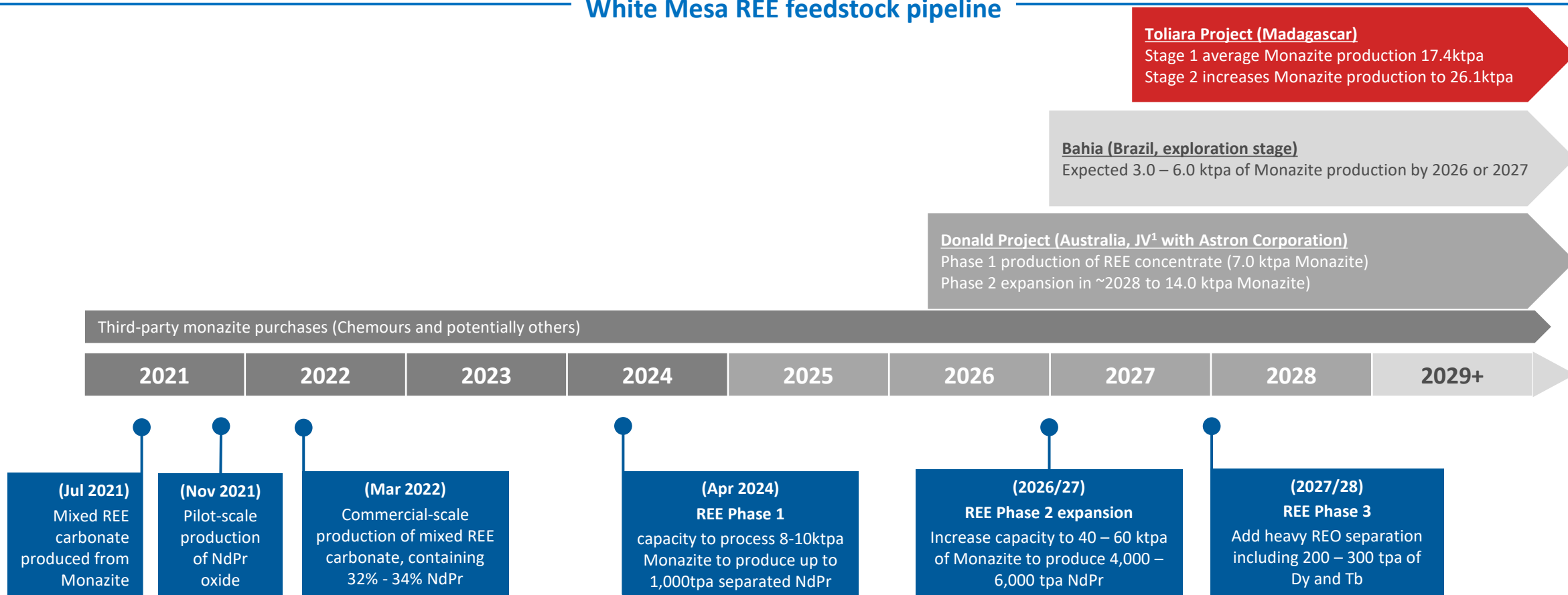


(1) Entered into a binding joint venture agreement with Astron Corporation Limited on June 4, 2024
 (2) Assumes closing of combination with Base Resources

Indicative REE Development Timeline

Strong near- and medium-term Monazite pipeline

White Mesa REE feedstock pipeline



White Mesa REE production timeline

Notes: Energy Fuels entered into a Joint Venture Agreement with Astron Corporation Limited (ASX:ATR) on June 4, 2024 to potentially earn up to a 49% joint venture interest in the Donald Project, but does not currently hold any legal rights or ownership interest in the project. There is no certainty that any binding agreement will be reached or that such interest will ultimately be obtained.

Source: Company announcements, estimates & website

Preliminary REE Economics

Expected to be Globally Competitive

REO Production at the White Mesa Mill (Utah):

- **Phase 1 NdPr Separation (COMPLETED)**
 - Capacity to produce 800 – 1,000 tonnes of separated NdPr per year (enough for 1 million EVs per year)
 - Commissioning today; expect to produce 25 – 35 tonnes of separated NdPr in 2024
 - \$16 - \$18 million investment
- **Increase NdPr Production – AACE International Class 4 Pre-Feasibility Study (“PFS”)¹**
 - We evaluated capacity to process 30,000 tonnes Monazite per year at the White Mesa Mill
 - Produce ~3,000 tonnes of separated NdPr per year (no Dy or Tb)
 - \$348 million investment, including dedicated “crack-and-leach” circuit to enable simultaneous production of REE’s and uranium
 - **\$29.88/kg NdPr oxide processing cost (no Dy or Tb)**
- **Currently Updating PFS to include:**
 - Increasing capacity to process ~40,000 – 60,000 tonnes of Monazite per year
 - Increase production to ~4,000 – 6,000 tonnes of separated NdPr per year
 - Add up to ~150 – 225 tonnes separated Dy & ~50 – 75 tonnes separated Tb capacity per year
 - Currently performing pilot-scale Dy & Tb separation to determine costs/economics

(1) Report prepared by WSP USA Environmental & Infrastructure Inc., filed on SEDAR, not intended to be compliant with NI 43-101 (Canada) or S-K 1300 (U.S.) Increased separation capacity subject to final design and permitting

Energy Fuels Has Many Structural Advantages

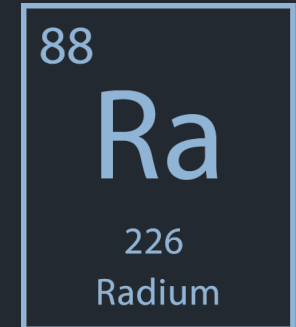
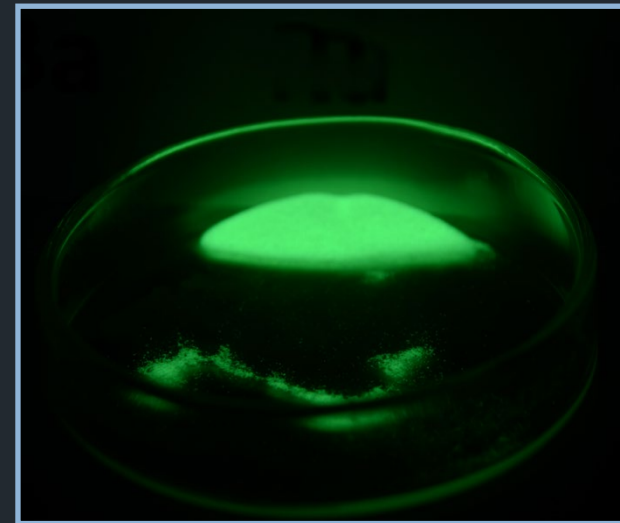
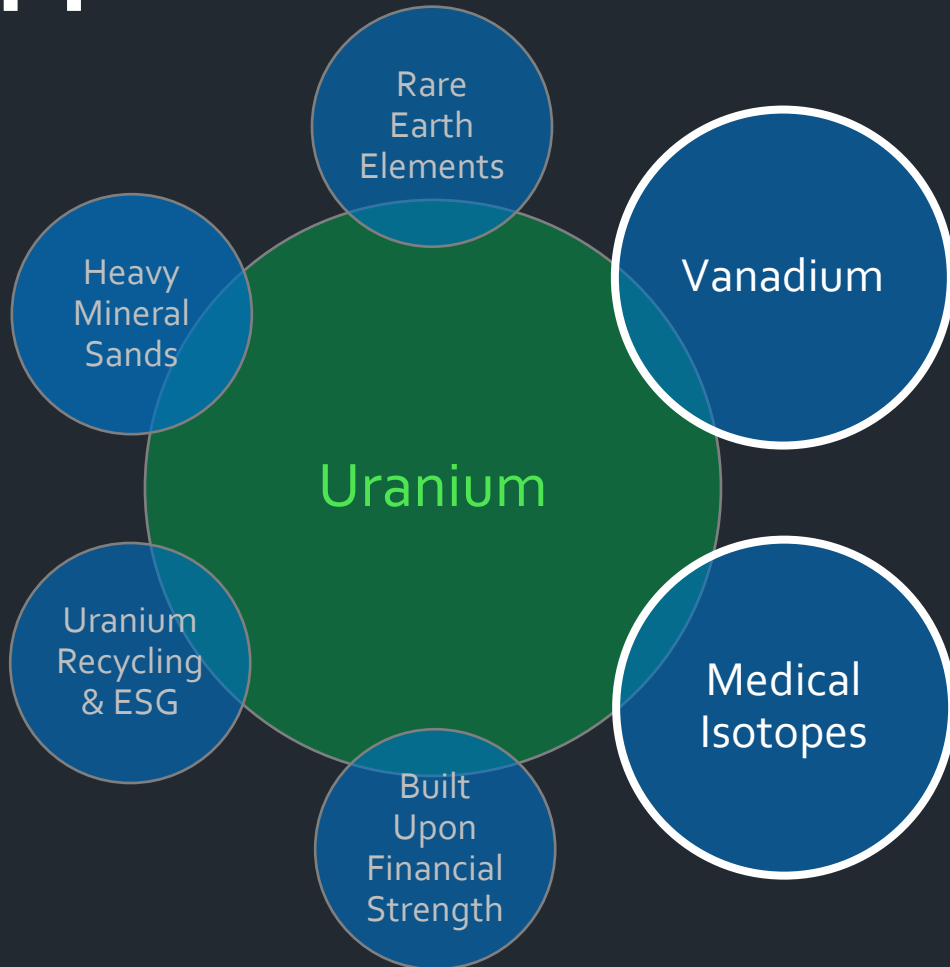
Expected to be Competitive in the Global REE Market

1. We currently have the licenses & infrastructure to handle the radionuclides in Monazite
2. Monazite has more value & higher grades relative to other REE feeds
3. Monazite is mined around the world as a low-cost HMS byproduct
4. Monazite is relatively straightforward to process compared to other REE minerals
5. Low cost & capital efficient, by utilizing byproduct Monazite & an existing U.S. facility
6. Energy Fuels has 40+ years of experience using solvent extraction (SX)
7. Utah is a relatively low-cost jurisdiction
8. Mining & processing techniques expected to meet, or exceed, applicable ESG standards

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

**Energy Fuels
has solved
this challenge.**

Longer Term Growth Opportunities:



Strong Position in Vanadium & Medical Isotopes

Optionality in Additional High-Growth Markets

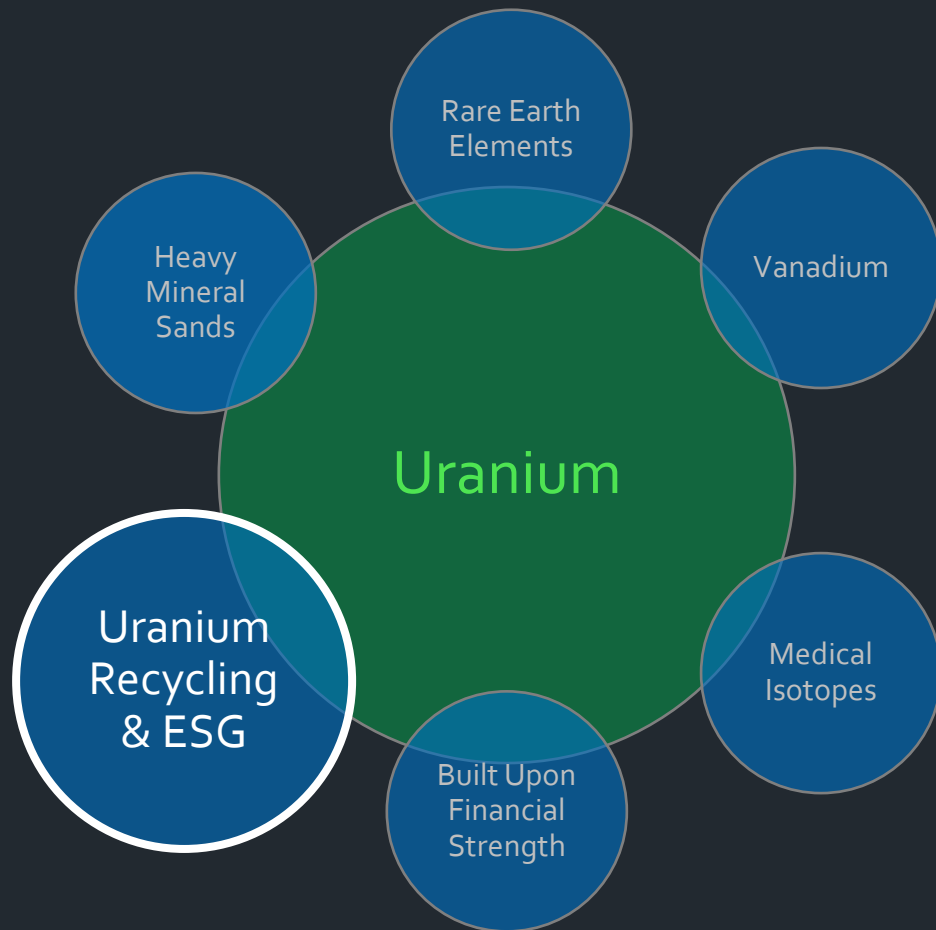
Vanadium

- Energy Fuels produces vanadium as a “co-product” of uranium production
- Used in steel, aerospace alloys, chemicals & “grid-scale” flow batteries used with renewable energy
- Energy Fuels’ White Mesa Mill is the largest conventional producer of vanadium (V_2O_5)
- 1.9 million lbs. produced in 2019; ~0.9 million lbs. of V_2O_5 currently in inventory
- Selectively producing & selling into market strength (sold 79,000 lbs. for ~\$11/lb. in 2023)
- Ability to quickly recover an additional 1.0M to 3.0M+ lbs. of V_2O_5 from mill tailings solutions

Medical Isotopes

- Several isotopes are required for emerging cancer therapies (“targeted alpha therapy”)
- Some of these isotopes naturally occur in the White Mesa Mill’s existing uranium process streams
- We are evaluating the potential to recover radium to help establish this U.S. medical supply chain

Uranium Recycling & Commitment to Community



Local & Regional Benefits

We are one of the largest private employers & taxpayers in San Juan County, Utah

- One of the most economically challenged counties in the U.S.

Currently, about 70 employees at the White Mesa Mill (UT) & 35 at the Pinyon Plain Mine (AZ)

- Roughly one-half of our employees at the Mill (35) are Navajo and Native American

Phase 2/3 REE Expansions at the Mill could result in hundreds of millions of dollars of investment

- Likely the largest private investment in San Juan County, Utah history, plus an additional 50 to 100 employees

Seeking to assist in the cleanup of Cold War era uranium mines on Navajo Nation

- A disturbing legacy which continues to have impacts even today
- The White Mesa Mill could begin to receive clean-up material – today

The Mill's recycling programs recover uranium & vanadium that would otherwise be lost to disposal

- Saves valuable resources and avoids carbon emissions



Community Outreach

San Juan County Clean Energy Foundation

- Long-term commitment to improving the quality of life for people in San Juan County
- Established Foundation with an initial \$1 million contribution by Energy Fuels
- Committed ongoing funding equal to 1% of annual revenues from the White Mesa Mill
- Supporting education, environment, health/wellness, economic advancement & Native American priorities
- www.sanjuancountycleanenergy.com

\$420,000 of
Grants to Date

Selected Grant Examples

American Indian Services – STEM
Programs (\$160,000)

Canyonlands Field Institute Native Guide
Program (\$25,000)

Dinosaur Museum Solar Energy Project
(\$50,000)

Navajo Nation Chapters (\$15,000)

Fine Arts in San Juan County (\$5,500)

Community Eehaniih Celebration (\$5,000)

San Juan High School Football (\$5,000)

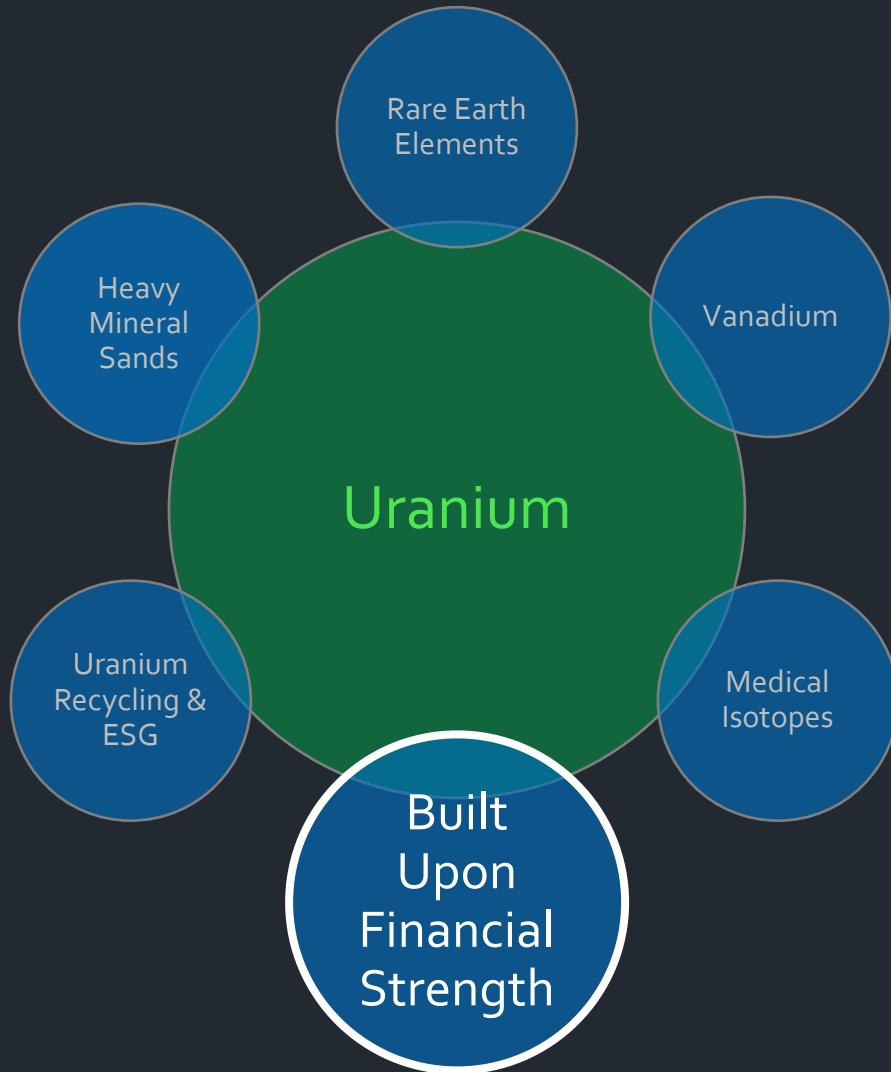
Red Mesa Chapter (\$4,600)

Farm Days 2023 (\$1,000)



Solar panels for the non-profit Dinosaur Museum in Blanding, Utah, funded in part by Energy Fuels' San Juan County Clean Energy Foundation, to lower energy costs and enable extended hours during the winter months

Financials



Q2 2024 Financial Highlights

Net loss in Q2 2024 Driven by Transaction Costs Offset by Uranium Sales

- \$6.42 million net loss (\$0.04 per share)
 - Sold 100,000 pounds of uranium for gross profit of \$4.91 million
 - Incurred costs in Q2-2024 related to our potential acquisition of Base Resources and negotiations over the Donald Project Joint Venture with Astron.
 - Recurring operational costs
- Potential additional uranium sales in 2024
 - Evaluating additional spot sales and long-term contract opportunities

Over \$0.21 Billion of Liquidity at Current Commodity Prices

- \$200.94 million of working capital as of June 30, 2024
 - \$24.59 million of cash & cash equivalents; \$146.66 million of marketable securities (uranium stocks + interest-bearing securities); \$23.52 million of inventory, including \$15.95M of product inventory
 - **Product inventory worth \$30.08 million at current commodity prices; \$14.13 million of additional liquidity¹**
 - 285,000 pounds of finished U₃O₈, 905,000 pounds of finished V₂O₅, 9 tonnes of finished high-purity, partially separated mixed REE carbonate and 12 tonnes of finished separated NdPr in inventory
- No Debt

¹ Per TradeTech (uranium) and Fastmarkets (vanadium) as of July 31, 2024

2024 Guidance + Focus

150,000 – 500,000 pounds of finished uranium production

100,000 lbs. uranium sale in Q2-2024 at \$85.90 per pound

No further contract sales currently scheduled

Evaluating potential to sell additional uranium on spot market

Ramp-up ore production at three (3) uranium mines to run-rate of 1.1 – 1.4 million lbs. per year by year end

Increasing Near-Term Uranium Production Profile to 2 Million Pounds Per year

Commissioning Phase 1 NdPr Circuit in Q2-2024 (25 – 35 tonnes NdPr production), Then Shift to Uranium Production

Engineering Phase 2 and Phase 3 REE Expansion Projects

Drilling at Bahia Project in Brazil; Resource estimate in late-2024 or 2025

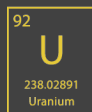
Advancing Combination with Base Resources + Astron/Donald JV



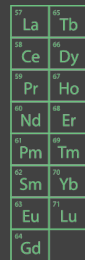
America's Leading Producer of Uranium + Critical Materials for the Clean Energy Transition



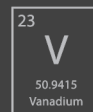
Uranium



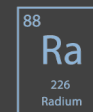
Rare Earths



Vanadium



Medical Isotopes



Recycling



Contact IR: investorinfo@energyfuels.com

Uranium Reserves & Resources

S-K 1300 (U.S.) and NI 43-101 (Canada)

Uranium Reserves ¹	Proven			Probable		
	Tons (000s)	Grade (%U ₃ O ₈)	Lbs. U ₃ O ₈ (000s)	Tons (000s)	Grade (%U ₃ O ₈)	Lbs. U ₃ O ₈ (000s)
Pinyon Plain (Arizona)	8	0.33%	51	127	0.60%	1,517
Sheep Mountain – Open Pit (Wyoming)	-	-	-	3,498	0.13%	9,248
Sheep Mountain – Underground (Wyoming)	-	-	-	3,955	0.12%	9,117
Total Current Mineral Reserves	8	0.33%	51	7,588	0.13%	19,933

Historical Uranium Resources ²	Unclassified		
	Tons (000s)	Grade (%U ₃ O ₈)	Lbs. U ₃ O ₈ (000s)
Whirlwind (Colorado/Utah)	625	0.25%	3,095
Arkose – ISR ³ (Wyoming)	1,667	0.10%	3,293
Wate (Arizona)	71	0.79%	1,118
EZ Complex (Arizona)	224	0.47%	2,105
Total Historical Mineral Resources	2,587	0.19%	9,611

Uranium Resources ¹	Measured			Indicated			Inferred		
	Tons (000s)	Grade (%U ₃ O ₈)	Lbs. U ₃ O ₈ (000s)	Tons (000s)	Grade (%U ₃ O ₈)	Lbs. U ₃ O ₈ (000s)	Tons (000s)	Grade (%U ₃ O ₈)	Lbs. U ₃ O ₈ (000s)
Pinyon Plain (Arizona)	-	-	-	37	0.95%	703	5	0.50%	48
La Sal Complex (Utah)	-	-	-	-	-	-	823	0.26%	4,281
Nichols Ranch – ISR (Wyoming)	11	0.19%	41	2,924	0.11%	6,142	614	0.10%	1,176
Sheep Mountain (Wyoming)	-	-	-	4,210	0.11%	9,570	-	-	-
Henry Mountains/Bullfrog (Utah)	-	-	-	1,560	0.29%	9,100	410	0.25%	2,010
Roca Honda (New Mexico)	208	0.48%	1,984	1,639	0.48%	15,638	1,513	0.46%	13,842
Total Current Mineral Resources	219	0.46%	2,025	10,370	0.20%	41,153	3,365	0.32%	21,357

¹ The Current Uranium Reserve & Resource estimates above comply with the requirements of both S-K 1300 (United States) and NI 43-101 (Canada).

² The Historical Uranium Resource estimates above are historical in nature, as the Company has not conducted the work to classify these resources as current. These are presented here for informational purposes only and should not be relied upon.

³ The Arkose project is a part of the Arkose Mining Venture, in which the Company holds an 81% interest. Only pounds attributable to the Company are reported in the table above.



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