Bear Lodge Critical Rare Earth Project

Developing a Secure, Domestic Supply of Critical Rare Earth Minerals for Defense and High-Tech Applications

Annual General Meeting
August 2023
This presentation contains forward-looking statements and forward-looking information (collectively, the “forward-looking statements”) within the meaning of securities legislation in the United States and Canada. Except for statements of historical fact, certain information contained herein constitutes forward-looking statements. Forward-looking statements are usually identified by our use of certain terminology, including "will", "believes", "may", "expects", "should", "seeks", "anticipates", "plans", "has potential to", or "intends" (including negative or grammatical variations thereof) or by discussions of strategy or intentions. Such forward-looking statements include statements regarding our vision and strategic near-term and longer term objectives, the likelihood of the continuation of the financial award from the U.S. Department of Energy or grant from the Wyoming Energy Authority/State of Wyoming and ability to progress through go/no-go decision points, the planned demonstration plant timing, cost and expected outcomes, plans to advance toward full-scale production, current and future demand and supply affecting the rare earth element markets, and other aspects of our business and our prospects as well as those of industry participants.

Our forward-looking statements are based on assumptions and analyses made by us in light of our experience and our perception of historical trends, current conditions, expected future developments, and other factors that we believe are appropriate under the circumstances. Such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause our actual results or achievements to be materially different from any future results or achievements expressed or implied by such forward-looking statements. These statements are subject to numerous known and unknown risks and uncertainties that may cause actual results to be materially different from any future results or performance expressed or implied by the forward-looking statements. These risks and uncertainties include those described in the “Risk Factors” section of our Annual Report on Form 10-K for the fiscal year ended December 31, 2021, and our quarterly and other filings with the Securities and Exchange Commission, which are incorporated by reference in this presentation. Many of the forward-looking statements in this presentation relate to events or developments anticipated to occur numerous years in the future, which increases the likelihood that actual results will differ materially from those indicated in such forward-looking statements. The forward-looking statements made in or in connection with this presentation speak only as of the date hereof. Except as required by law, we disclaim any obligation subsequently to revise any forward-looking statements to reflect events or circumstances after the date of such statement or to reflect the occurrence of anticipated or unanticipated events. Certain information contained in this presentation has been obtained by the Company from its own records and from other sources deemed reliable, however no representation or warranty is made as to its accuracy or completeness.
Company Value Drivers

Emerging REE Mineral Development Company with Proprietary Technology for Recovery & Separation

- A well-defined resource with excellent concentrations of rare earth elements (REEs) essential to magnet material technology

- World-class, technology-leading General Atomics (“GA”) collaborating on advancing proprietary REE recovery/separation process

- Strong Federal and State support, including over $26M in funding for demonstration plant

- Market fundamentals improving for producers as America and allied countries look for secure, domestic, responsibly sourced REE supply

- Experienced team continues de-risking project by scaling up technology
Strategic Direction and Value Creation

Developing the Cornerstone to a Secure, Domestic REE Supply Chain to Support Critical, High-Tech Applications

**Vision:**

To become a long-term, secure, reliable and sustainable domestic source of separated REE minerals

**Near-Term Objective:**

Develop REE processing and separation demonstration plant, utilizing proprietary technology, while advancing the Bear Lodge Project as a world-class, domestic source of strategic REE minerals
China Dominance – Risk to Supply

- No U.S. source for separated or refined REEs
- Ongoing geopolitical/trade issues
- Lower environmental standards than in the U.S.

* US DOE Report, “Rare Earth Permanent Magnets: Supply Chain Deep Dive Assessment” 2/24/22
Green Tech Driving Demand

Rare Earth Elements are Essential to Hybrid-Electric and Electric Vehicle Technology*

REEs
- Nd – Neodymium
- Eu – Europium
- Dy – Dysprosium
- Tb – Terbium
- Y – Yttrium
- Pr – Praseodymium
- Ce – Cerium
- La – Lanthanum

* S&P Global Mobility
** U.S. DOE, Critical Materials Assessment 2023, July 2023
Essential for Carbon Reduction Goals

DOE Criticality Matrix*

Report focused only on those materials critical to clean energy technologies

* U.S. DOE, Critical Materials Assessment 2023, July 2023
Decarbonization Goals to Drive Global Demand

Projected Global Demand Growth for Magnet Materials Under Aggressive Decarbonization Goals*

Green Technologies Dependent on REE Magnet Materials Expected to Drive Significant Demand Growth

* US DoE Report, “Rare Earth Permanent Magnets: Supply Chain Deep Dive Assessment,” 2/24/22. Based on NdFeB demand
Stock Price Performance

- REEMF experienced a significant uptick in stock price following recently announced Chinese export restrictions on critical minerals gallium and germanium.

As of 8/17/2023:
- Market Cap: $129.8M
- Average Volume: 187,632
- 52 Week High: $0.99 (7/11/2023)
- 52 Week Low: $0.24 (4/24/2023)
- Shares Outstanding: 212.7M
Premier Wyoming Location

Mining-friendly State / Good infrastructure
Low-cost power / Ready workforce

Support from State and Local Leaders
LeapFrog image showing the distribution of the +2.0% (orange) and +3.0% Total Rare Earth Oxides (TREO) (red) grade shells at the Bear Lodge Project. White circles indicate targets.

- Well-outlined resource
- One of the highest-grade Nd/Pr oxide deposits in the world
- Targets identified for potential expansion
- Bulk sample, with 10% REE oxide content, for demo plant
- High-grade zone to be mined in early years
Bear Lodge Distribution – Magnet Materials Drive Value

In 2023, the U.S. DOE, using a global perspective, identified magnet materials as critical to clean energy technologies*

The report assessed current sources, risks and anticipated demand growth*

### Bear Lodge Project Mineralized Material
Projected Distribution by Weight**

<table>
<thead>
<tr>
<th>Rare Earth Elements</th>
<th>Distribution by Wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neodymium (Nd)*</td>
<td>17.9%</td>
</tr>
<tr>
<td>Praseodymium (Pr)*</td>
<td>4.9%</td>
</tr>
<tr>
<td>Dysprosium (Dy)*</td>
<td>0.5%</td>
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<tr>
<td>Terbium (Tb)*</td>
<td>0.1%</td>
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<tr>
<td>Samarium (Sm)</td>
<td>3.0%</td>
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<tr>
<td>Magnet Materials</td>
<td>26.4%</td>
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<tr>
<td>Europium (Eu)</td>
<td>0.7%</td>
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<tr>
<td>Yttrium (Y)</td>
<td>1.3%</td>
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<tr>
<td>Cerium (Ce)</td>
<td>43.0%</td>
</tr>
<tr>
<td>Lanthanum (La)</td>
<td>26.8%</td>
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<tr>
<td>Gadolinium (Gd)</td>
<td>1.6%</td>
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<tr>
<td>Other REEs***</td>
<td>0.2%</td>
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<tr>
<td>Total Rare Earth Oxides</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

*U.S. DOE, Critical Materials Assessment 2023, July 2023. Sm included because of its use in samarium/cobalt magnets.


***Other REEs include Holmium, Erbium, Thulium, Lutetium, Scandium and Ytterbium.
Bear Lodge – Project History

2012 - 2016
• PFS Completed & Plan of Ops submitted to USFS
• Bench recovery test work successfully completed
• Drilling defines high-grade zone, mineralization revised
• Pilot plant testing of recovery technology completed
• Draft EIS received

2017
• Synchron, an affiliate of General Atomics, takes 34% interest in Company and ultimately increases their holdings to over 54%

2017 – Today
• German pilot plant testing validates technology
• Nd/Pr successfully produced
• Process optimization reduces step & improves economics
• Patents obtained
• GA-led team secures DOE grant of $21.9M
• RER secures WEA funding of $4.4M
• Engineering & design of demo plant completed
Bear Lodge Rare Earth Project

Cornerstone Project for Building U.S. Rare Earth Supply Chain

- World-class, long-life ore body fully outlined
- Ideal location in mining-friendly Wyoming with extensive infrastructure and skilled labor in close proximity
- Exploiting higher-grade material in early years expected to accelerate payback
- Rich in magnet materials
- Known targets represent opportunity for resource growth
- Site permitting efforts expected to resume in 2023/2024
- Resource reevaluation underway
Next Step - Demonstration Plant
Collaborative Effort

2023/2024 - Construct and Operate RE Demonstration Plant

Goal: Gather data and confirm process flow sheet for full-scale operations, including equipment sizing and reagent requirements

- Final Engineering and Design completed; DOE “go” decision received – 12/22
- NRC Material Source license received July 2023
  - DOE expected to complete NEPA review within one month
  - Remaining local permits being finalized
- Plant components arriving and being assembled on skids at offsite integrator
- Mineral sample to plant site late summer 2023
- Plant construction expected to take ~7 months
- Operations expected to run for 8 to 10 months
Demonstration Plant Location - Upton, Wyoming

- Upton Logistics Industrial Center - 8.2 Acre Brownfields Site
- ~15 demo plant employees expected to transition to commercial operations
- Commercial scale plant planned to be located on optioned land across the street
# Demo Plant Timeline

<table>
<thead>
<tr>
<th>Task</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
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<tbody>
<tr>
<td>REE Demonstration Plant</td>
<td>Q4</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
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<tr>
<td>Design &amp; Engineering</td>
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<td>Procurement</td>
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<td>Construction</td>
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<tr>
<td>Operations</td>
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<td>8-10 months</td>
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<tr>
<td>Decommissioning</td>
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- **NRC License**: 
- **DOE NEPA**: 

8-10 months
Building the Cornerstone for a Secure, Domestic REE Supply Chain

- Advanced innovative REE recovery technology to be further refined through demo plant operations
- Technology partnership with global leader has advanced technology while providing access to federal agency participation
- Premier North American deposit, high in the REEs critical to addressing growing demand from green technologies
- Significant resource with upside in already identified targets
- Exceptional location with existing infrastructure, availability of highly skilled workforce and ongoing local and state support
Questions?