ADVANCED ENERGY FUELS

BUILDING AN INTEGRATED, US-FOCUSED CRITICAL MINERALS BUSINESS

NOVEMBER 2025

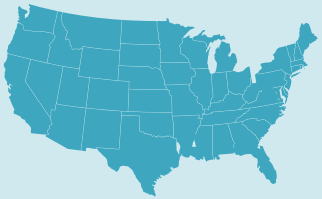
INTRODUCING ADVANCED ENERGY FUELS

- Advanced Energy Fuels, Inc. (AEF) is a battery materials company focused on the extraction and purification of critical minerals for electrification and energy storage.
- AEF has a multi-asset portfolio strategically located in tier-one jurisdictions with manganese projects in the Pilbara Region of Western Australia and fluorspar prospects in New Mexico in the United States.

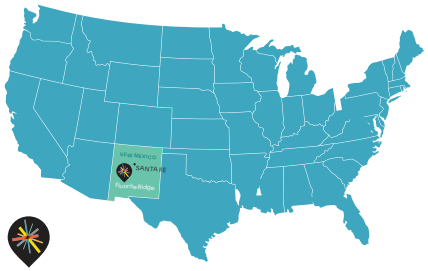
Manganese Extraction

South Woodie Woodie Manganese Project
Pilbara, Western Australia

Manganese Processing & HPMSM Sales

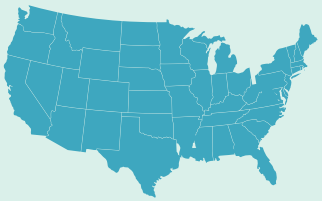


Fluorspar Extraction



Fluorspar District, Luna County
New Mexico, USA

Fluorspar Processing & Sales



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INVESTMENT HIGHLIGHTS

Strategic critical minerals portfolio in Tier One jurisdictions.

- Manganese is used in most Li-ion batteries, dominates lifecycle-extending chemistries.
- Fluorspar is embedded across the battery value chain, i.e. cathode, electrolyte, anode.

US government prioritizing midstream processing capacity while funding critical minerals stockpiling.

- Supply chain resilience has become a core pillar of national defence.
- US-Australia critical minerals framework (Oct-25) intensifies bilateral cooperation.

Brownfields projects with in-situ resources and past producing mines.

- Focus on extraction and midstream processing.
- Targeting fully integrated, value-maximizing pathways to produce high-purity materials.
- Government and supply chain collaborations to fast-track commercialization.

Favourable corporate setting enhances shareholder value and alignment, i.e.:

- Tight capital structure with significant board and management ownership.
- Experienced leadership team with global multidisciplinary experience.
- Low cost, minimal dilution budget for PFS advancement in 2026.

Near-term catalysts in support of a North American listing.

- Manganese – advancing flowsheet development, battery precursor testwork and government / supply chain collaborations.
- Fluorspar – advancing exploration and scoping study at Fluorite Ridge project.
- Financing closed and definitive agreements signed for TSXV listing.

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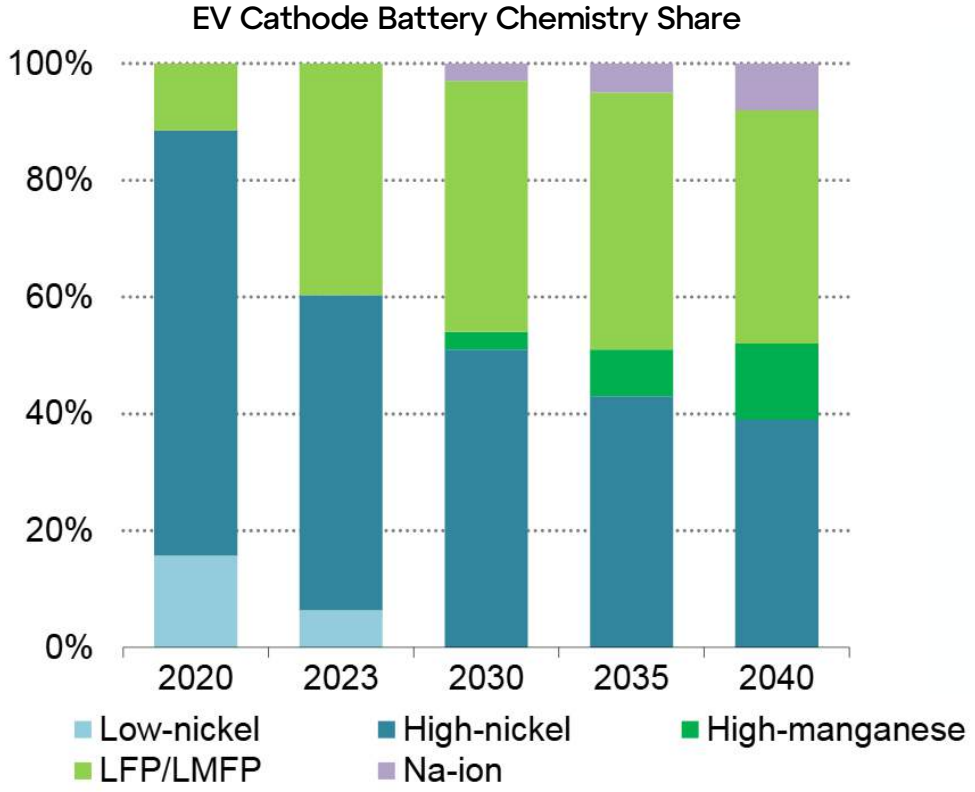
MANGANESE AND THE CLEAN ENERGY TRANISITION

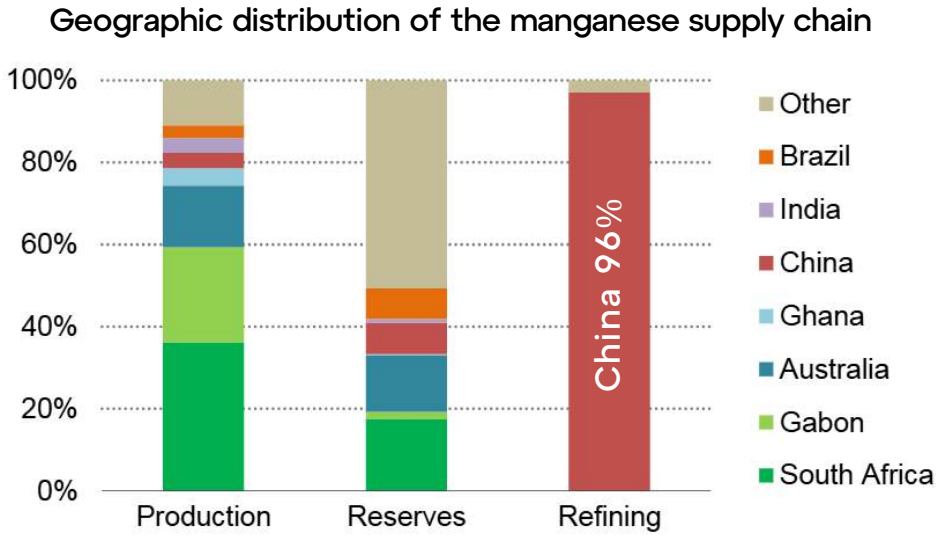
- A critical element in Li-B chemistries, essential for EVs and ESS.
  - A key component in dominant existing cathode chemistries (NMC) and emerging chemistries such as LMFP, LMNO, NMx, LM-R as well as solid-state and sodium-ion batteries.
- Emerging manganese-based chemistries support long duration energy storage, a key enabler for integrating intermittent renewable sources such as wind and solar.
- High manganese in batteries enhances energy density, performance and safety, and lowers cost.
- Current supply-demand trends for HPMSM indicate market tightness emerging by 2027[1].



[1] Amvest Terraden Fund

BUILDING SUPPLY CHAIN RESILIENCE

- Concentrated supply chains and geopolitical tensions have led the US to seek offshore supplies of critical minerals where onshoring is not feasible.
  - Manganese and fluorspar rank amongst the highest US net import reliance.
- But a mine without processing is not a supply chain, which is why recent US government funding is focusing on processing first, i.e. building US midstream processing capacity which is where China dominates.
  - 96% of HPMSM supply is out of China, the highest of all battery metals[2].
  - Proposed export restrictions on cathode technologies such as LMFP[3].



> *Congress must prioritize refining, separation and chemical conversion capacity inside US borders …. the missing middle where China dominates and the West remains frighteningly dependant.*
>
> Ashley Zumwalt-Forbes, former US Department of Energy Deputy Director for Batteries and Critical Minerals (May-2025)

[2] Bloomberg NEF [3] Magnus Bekker "GIGA Manganese"

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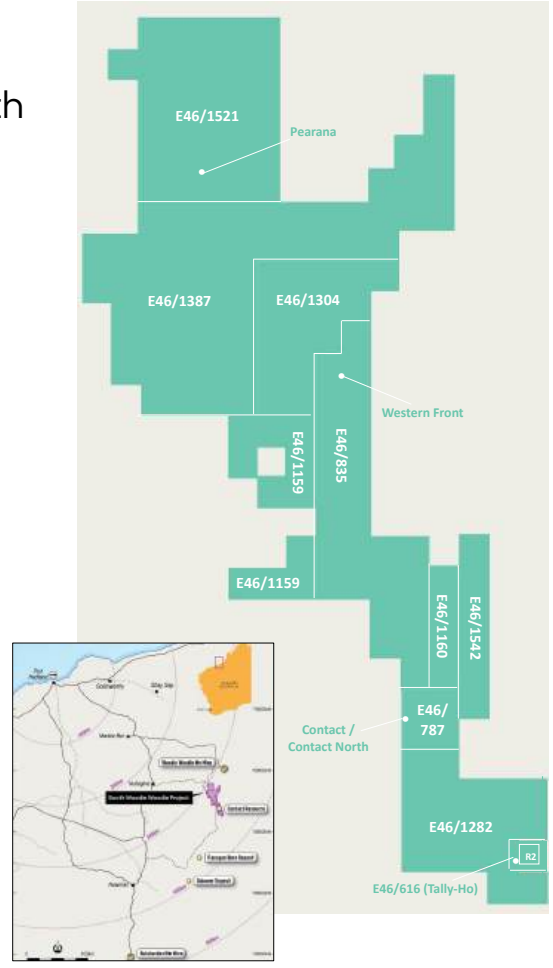
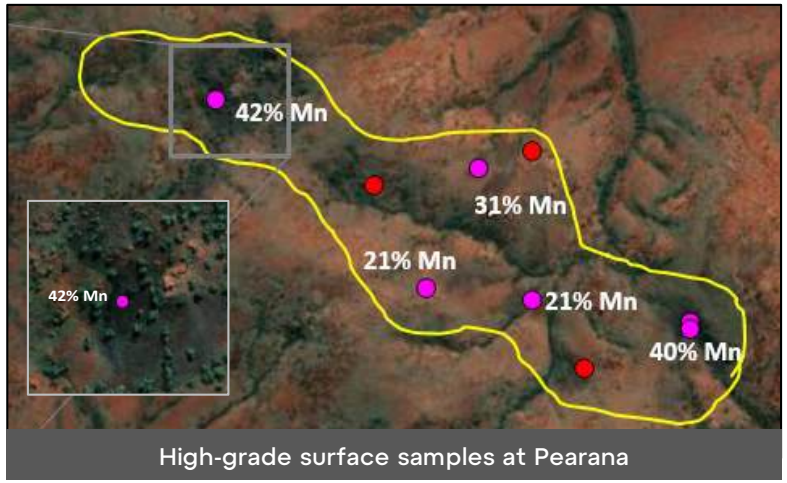
SOUTH WOODIE WOODIE MANGANESE PROJECT

- 518.5km^2 of tenure encompassing two manganese deposits with multiple high-grade exploration targets.
  - Extensive historical drilling (418 holes for 39,920m), with NI 43-101 mineral resource.
- Located in the Pilbara mining district, near existing mines, infrastructure and port facilities.
  - Proximal to Woodie Woodie, one of the world's highest-grade manganese mines.
- Regional geology is prospective for high-grade manganese targets.





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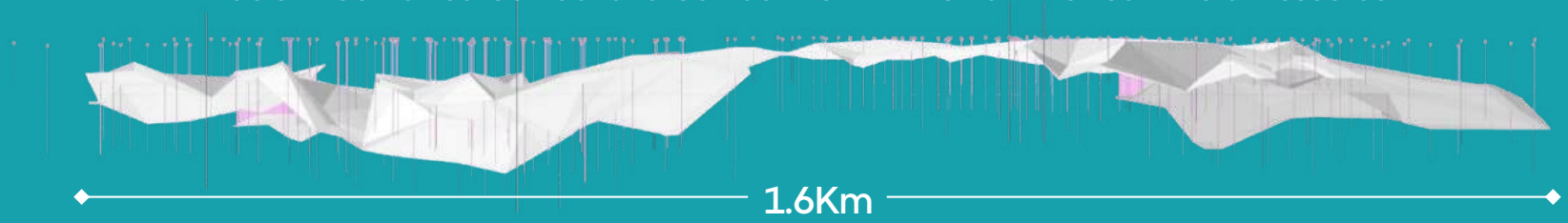
CONFIRMED MANGANESE RESOURCE BASE

Cutoff (Mn%)	Mt	Mn%	Al_2O_3%	Fe%	SiO_2%	P%	LOI(1000)
15.0	4.7	18.6	3.2	15.8	36.3	0.061	9.2
10.1	11.3	15.0	3.5	15.2	42.5	0.057	8.5
5.0	16.7	12.8	3.5	14.1	47.6	0.053	7.9

Table 1: Combined Contact and Contact North NI 43-101 Inferred Mineral Resource



- NI 43-101 mineral resource of **11.3Mt grading 15% Mn** at 10.1% Mn cutoff, with potential to increase grade and tonnage by further drilling.
  - Up to **42.8% Mn** in resource drilling.
- Studies confirm ores can be processed efficiently using simple gravity beneficiation techniques.

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INDEPENDENT SCOPING STUDY SUPPORTS CONTINUED EVAULATION[4]

- Mine planning based on current mineral resource model outlines staged development from three initial pits expanding to five pit stages.
- At 10% Mn cutoff, the mineralized material averages 15% Mn. Beneficiation testwork demonstrates consistent upgrade to ~31% Mn concentrate.
- Mine design demonstrates reasonable prospects for eventual economic extraction (RPEEE).
- Planned drilling and ongoing met testwork aim to refine resource domains and processing parameters.

[4] Mine Planning Services, Contact Manganese Deposit, Aug. 2024

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ADVANCED BATTERY TESTWORK AND PROCESS DESIGN

- Objective: to establish and validate a robust flowsheet capable of consistently producing HPMSM that exceeds li-ion battery precursor purity specifications, thereby positioning AEF as a reliable and competitive supplier to global battery markets.
- Key Milestones achieved:
  - Initial Mineral Resource Estimate completed and reported in accordance with JORC (2012) and subsequently converted to NI 43-101-compliant format.
  - Mining Scoping Study completed with three open pit stages (Stages 1–3) fully designed based on the resource model, and optimised pit shells developed for potential Stages 4 and 5, providing the framework for future reserve conversion and mine scheduling.
  - Beneficiation (NAGROM Perth), Dense Media Separation testwork delivered positive upgrade results; variability testwork confirmed consistent beneficiation performance across mineralised domains.
- Current activities:
  - Metallurgy (tekMIRA), active test program underway assessing pyrometallurgical reduction, acid leaching, and preliminary purification. Successful reduction testwork achieved >90% recovery of Mn to $MnSO_4$. First AEF-produced manganese sulphate from ore has been produced.
  - Long lead environmental studies underway, providing data to support approvals and future development planning. Flora and fauna surveys also initiated with no adverse finding in Phase 1. Phase 2 scheduled for completion in March 2026.

AEF $MnSO_4$ crystals produced in lab

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STRATEGIC COLLABORATION TO FAST-TRACK COMMERCIAL HPMSM PATHWAY

- Collaboration with CSIRO, Australia's national science agency, to commercialize a novel solvent extraction (SX) purification process that removes key impurities to produce a manganese solution suitable for direct crystallization into HPMSM and UPMSM.
- Key Milestones achieved:
  - Solvent Extraction (Phase 1). Bench-scale solvent extraction testwork successfully produced manganese sulphate solution ($MnSO_4$) exceeding lithium-ion battery specifications for HPMSM. Work focused on selective removal of Ca and Mg from synthetic leach liquor.
  - Solvent Extraction (Phase 2). Mini-pilot testwork simulating continuous processing completed, using synthetic liquor formulated to match resource deposit chemistry. Purity results exceeded lithium-ion battery specifications for all contaminants.
- Future activities:
  - Bulk sampling program to collect representative mineralized material to conduct ore sorting trials and second round mini-pilot solvent extraction testwork to fine tune operating conditions.
  - Integrated pilot-scale program to validate the complete flowsheet using actual leach solution.
  - Staged sequence of engineering studies to advance project definition and support funding decisions, including ore prep PFS and FS; and HPMSM plant PFS and FS.

CSIRO mini-pilot-scale testwork

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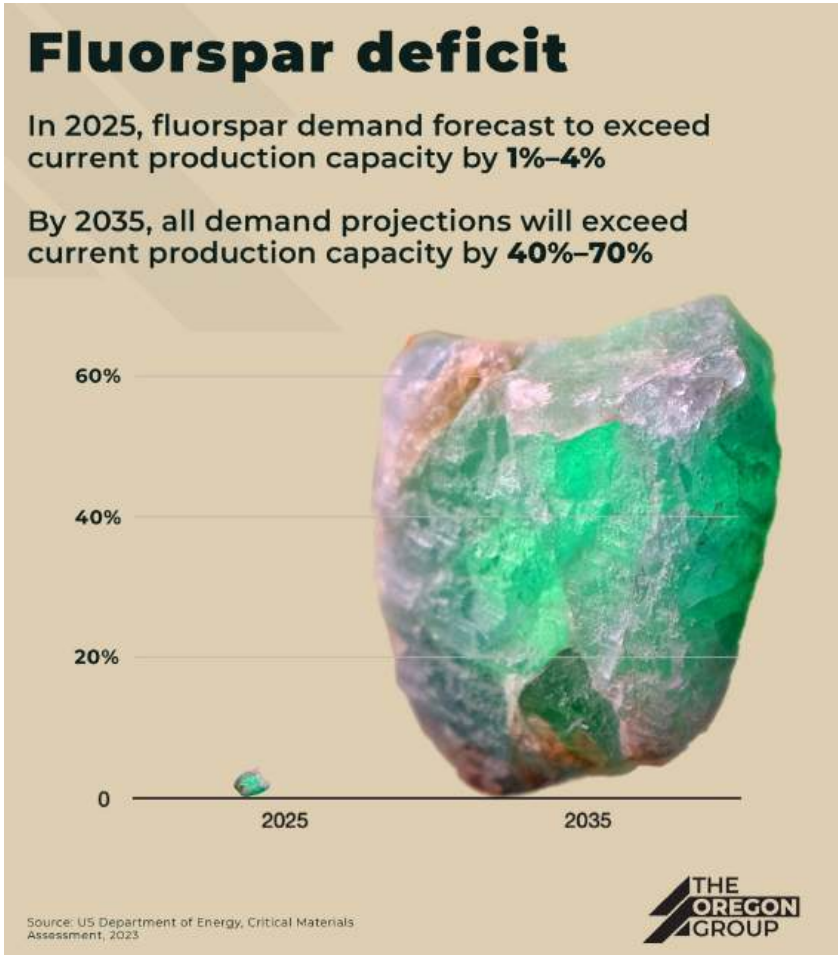
FLUORSPAR THE FORGOTTEN CRITICAL MINERAL

- Essential material to multiple, high-growth industries, including automotive, aerospace, nuclear, Li-ion batteries, defence and energy.
  - **There is 5-10x more fluorspar in a li-ion battery than lithium[5].**
- Fluorspar is embedded across the battery value chain, including in emerging technologies, i.e.:
  - Critical cathode binder and as a coating to enhance stability and safety.
  - Key electrolyte salt facilitating li-ion movement.
  - Anode purification enhancing performance and safety.
- Fluorspar supply is heavily concentrated, raising red flags over future bottlenecks.
  - China accounts for 65% of global production but reserves are declining[6], triggering export license controls.
  - Key alternate sources are Mexico and Mongolia, but capacity remains limited.



[5] The Oregon Group, 2024 [6] USGS Mineral Commodity Summary

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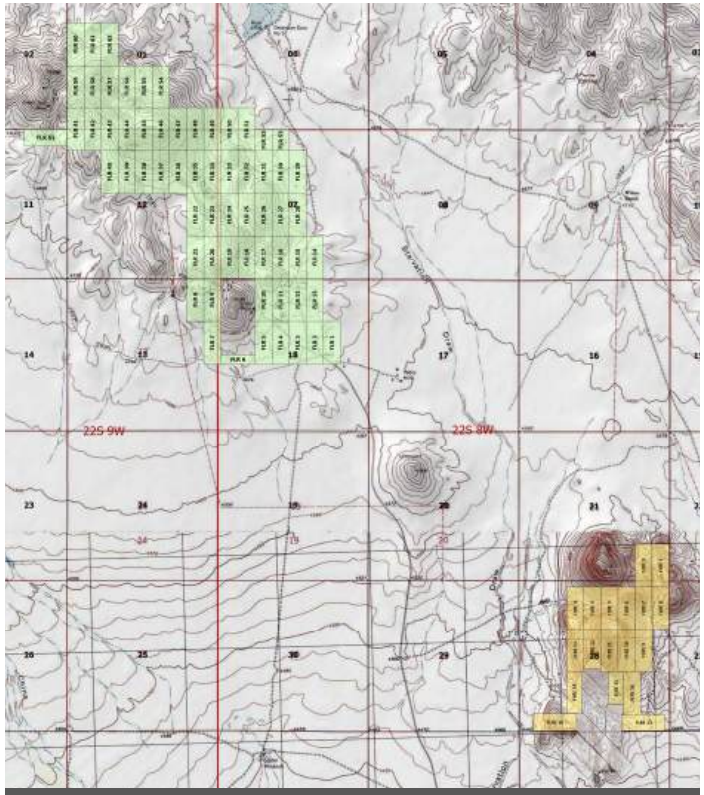
FLUORITE RIDGE, LUNA COUNTY, NEW MEXICO



AEF landholding: 63 lode claims covering 1629 acres

- Numerous prospects at >8 past-producing mines over 7kms. All mine shafts bottomed in ore.
- Historic fluorite production at the Greenleaf Mine averaged 50-92% CaF2 (fluorspar)[7].


Northwesterly-trending ridge with numerous past-producing mines

- Recent exploration identified at least two zones averaging 23.5% CaF_2 across widths of 15m and 22m. Outcrops indicate substantial length and tonnage potential.
- NM Bureau of Mines study showed low grade (6.0% CaF_2) ore from Fluorite Ridge could be concentrated to a 55% commercial fluorspar product by a simple flotation process.

> *Fluorspar production in the US ceased 55 years ago with all significant production from either vein or stratiform deposits mined from underground. AEF believes that its Fluorite Ridge zones are the first ore grade zones recognized in the US with relatively large open pit tonnage potential.* Dr. CL Smith (June-2025)

[7] Griswold (1961)

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FLUORSPAR GO-TO-MARKET STRATEGY

- Objective: to provide a reliable, domestic source of fluorspar (acidspar and metspar) to satisfy burgeoning US industrial demand.
  - Targeting extraction and processing in the US, with company-to-company contracts delivering high-margin, long-term relationships.
- Market drivers and opportunities
  - Demand from the battery sector, along with increasing use of fluorochemicals in refrigerants, pharmaceuticals, and electronics is driving new sources of fluorspar demand.
  - Traditional uses including steel, cement and aluminium, linked to infrastructure development and industrialization, are also increasing demand.
  - With China becoming a net importer, and strong growth driven by industrial applications and technological advancements, building a domestic US fluorspar supply chain will be crucial to mitigate risk and meet future demand.
- Fluorspar strategy
  - AEF's Fluorite Ridge project allows for potential open pit and underground mining operations, the only such opportunity presently available in the US. Operations will be designed to pivot between metspar and acidspar, as required. Within this:
    - Acidspar (97% CaF_2 grade) market (25F US$400m) is the core focus.
    - Metspar (85% CaF_2 grade) market (25F US$500m) is a cash/diversification play.
  - Fluorspar is not mined domestically in the US and receives bi-partisan support as a critical mineral.

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2025-26 PROJECT EXECUTION PATHWAY

H1-2025

- ✓ Variability testwork to confirm Mn mineral processing flowsheet.
- ✓ Scoping study sets foundation for reserve conversion and mine planning.
- ✓ CSIRO collaboration to fast-track commercial HPMSM pathway.
- ✓ Mn Solvent Extraction (SX) bench testing.
- ✓ Expansion of fluorspar NM project footprint; continuous channel sampling program.

H2-2025

- Mn ore-prep pre-feasibility study.
- Mn mini-pilot study for SX continuous testing.
- HPMSM flowsheet definition.
- Environmental monitoring and surveys.
- TSXV listing & recapitalization.
- Government / supply chain collaborations.

H1-2026

- Mn resource drill-out and resource update.
- Mining study.
- Mn ore-prep PFS final.
- Integrated concentrate to HPMSM testwork.
- HPMSM pre-feasibility study.
- Fluorspar drilling and preliminary testwork.
- Environmental monitoring and surveys.

H2-2026

- Mn Project - EOI Partnering underway.
- Environmental Impact Statement.
- HPMSM PFS final.
- Integrated feasibility study commences.
- Fluorspar scoping study.

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LEADERSHIP TEAM

Proposed TSXV Board of Directors

Melissa Sanderson B.EC. BA MBA
CHAIR
Global leader in geopolitics and ESG with +30-years in the US Dept. of State, mining and corporate governance. Previously at Freeport-McMoRan, currently director at American Rare Earths, and Co-Chair of Critical Minerals Institute.

Gary Lewis BCOM MBT
CEO, DIRECTOR
Founding director with over 30 years in capital markets, business and strategy development in Australia, UK, Asia and the Americas. Previously managing Director at ASX listed Robust Resources, and founder and CEO at Electric Metals (USA) Ltd.

Mitchell Smith
INDEPENDENT DIRECTOR
Accomplished executive with over 15 years in battery and energy metals. Partner, Mining & Metals at Moneta Securities, President & CEO at Global Energy Metals Corp., Director of the Battery Metals Assoc. of Canada, Non-Exec. Chairman at Fulcrum Metals PLC.

Brandon Bonifacio MASc MBA BCOM
NON-EXECUTIVE DIRECTOR
Experienced mining executive with expertise in project development, project evaluations and M&A. Previously at Goldcorp, currently President, CEO and director at NevGold, director at Terra Balcanica Resources and Aero Energy.

Derek Marshall BS (Geology) MAIG
INDEPENDENT DIRECTOR
Experienced geologist with +19 years in the exploration and mining industry. Significant experience in managerial and technical roles, including as CEO of ASX listed Trek Metals, and senior technical roles at Newcrest and Buxton Resources.

Commercial Advisory Board

Joe Kaderavek BE MBA CFA
CHAIR
Senior finance / engineering executive, previously CEO of Cobalt Blue Holdings. Impressive track record in commercializing energy storage technologies.

Project Team

John Levings BSc FAusIMM
TECHNICAL DIRECTOR
Accomplished economic geologist who has led teams globally into major discoveries, project acquisitions and developments. Exec. director at ASX listed Prospech Resources.

Dr Mark Steemson
BE(Chem. Eng.) MBA PhD
PROCESS ENGINEER (AUST)
Over 30 years in process development and engineering in nickel/cobalt, copper, lead/zinc, iron/vanadium, manganese and gold.

Jim Moore
BE (Geological Eng.)
MINING ENGINEER (AUST)
Over 30 years as a mine manager and consultant across magnetite, gold, lithium, manganese, rare earths and precious metals.

Dr Clyde Smith BA MSc PhD
SENIOR GEOLOGIST (USA)
Acclaimed exploration and mining geologist for over 50 years. Successfully guided projects through exploration, discovery, feasibility and development.

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LISTING STATUS AND PROFORMA CAP TABLE

- Definitive share exchange agreement for a proposed business combination with Cavalry Capital Corp. ("CCC") has been signed and filing statement has been lodged with TSXV.
  - The merged entity is expected to meet listing requirements for a Tier Two Mining issuer on TSXV.
  - CCC will consolidate its shares on a 1:1.66 basis, issue shares to AEF and undertake a private placement of Subscription Receipts, resulting in the following pro forma capital structure.

PRO FORMA CAPITAL STRUCTURE – CCC REVERSE TAKEOVER OF AEF	
Total Shares Outstanding[9]	24,473,010
New Shares issued at RTO[10]	16,960,468
Total Shares at RTO	41,433,478
Options / Warrants[11]	6,497,881
Fully Diluted Equity	47,931,359
Basic Market Capitalization at RTO	$10.4M
Board / Management / Insiders at RTO (basic market capitalization %)	52.29%

- Upon completion of the Transaction, the new board will be comprised of three nominees from AEF and two from CCC
  - CCC will change its name to AE Fuels Corporation (AEF), subject to TSXV approval.
- AEF will apply for quotation on the OTCQB upon completion of the Transaction.

[8] Each Unit comprises one post-consolidation CCC share + one half of one share purchase warrant exercisable at $0.35 per share. [9] 3,893,072 CCC consolidated shares + 20,579,938 AEF shares [10] 10,,960,468 subscription shares + final option payment to Trek Metals Ltd 6,000,000 shares . [11] 608,547 consolidated options and warrants + 5,889,334 financing and broker warrants.

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SELECTED PEER GROUP COMPARABLES

Company	Market Cap (C$M)[12]	Fully–Diluted Shares (M)	Location	Stage
Advanced Energy Fuels	$10.38	47.93	Western Australia	PEA
Euro Manganese	$23.60	243.55	Czech Republic	Feasibility
Element 25	$70.87	228.61	Western Australia	Pilot Production
Estella Resources	$60.00	2,051.96	Timor-Leste	Exploration
Giyani Metals Corp	$23.32	348.33	Botswana	Feasibility
Black Canyon	$49.95	67.04	Western Australia	Resource
Manganese X Energy	$12.88	155.06	New Brunswick Canada	PEA
Electric Metals	$66.90	184.65	Minnesota, USA	PEA
Firebird Metals	$20.98	142.36	Western Australia	PFS
Peer Group Average	$41.05			

[12] September 2025

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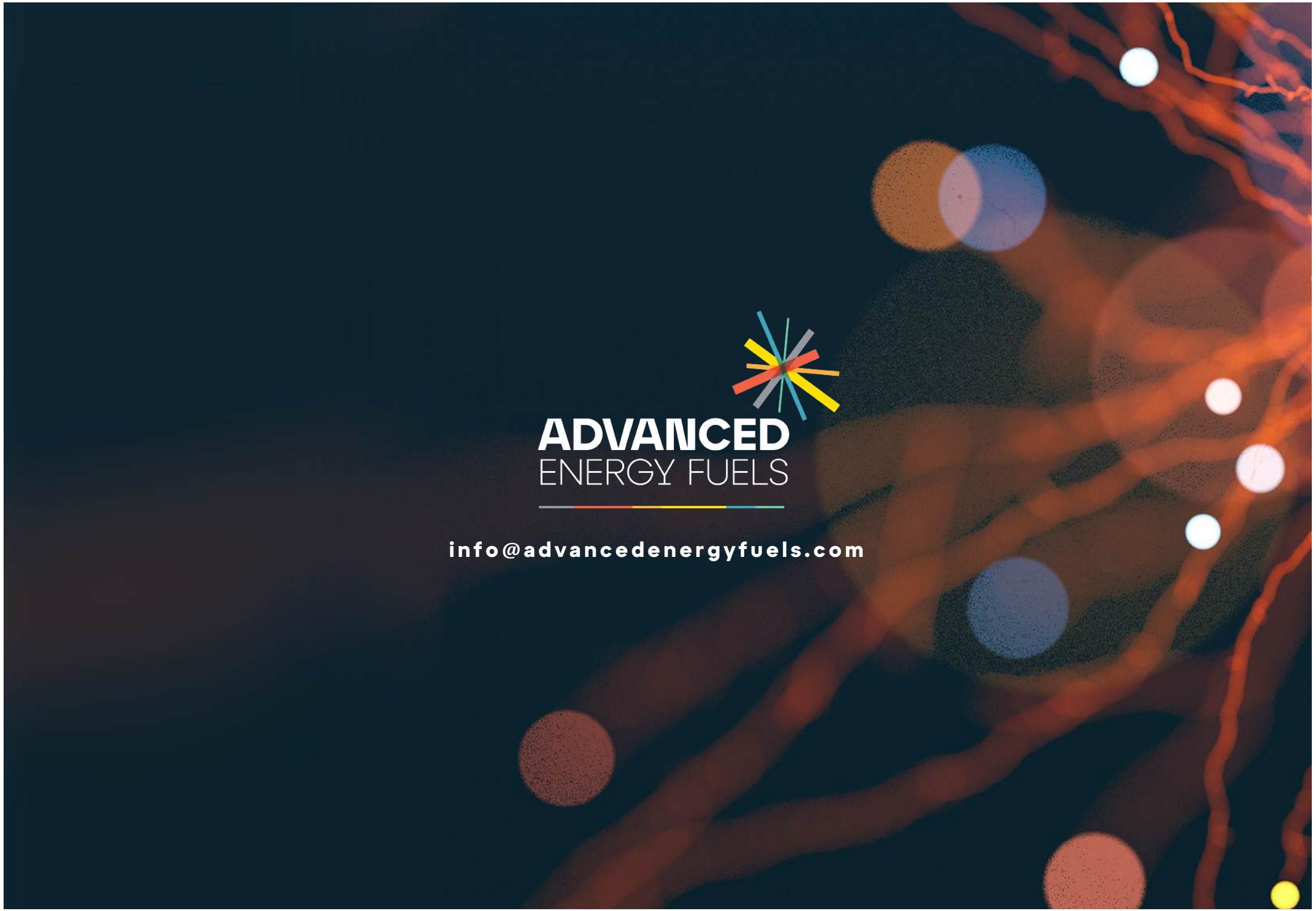
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