

sunrise
energy metals

Metals for the energy transition

Annual General Meeting
October 2023



Cautionary statement

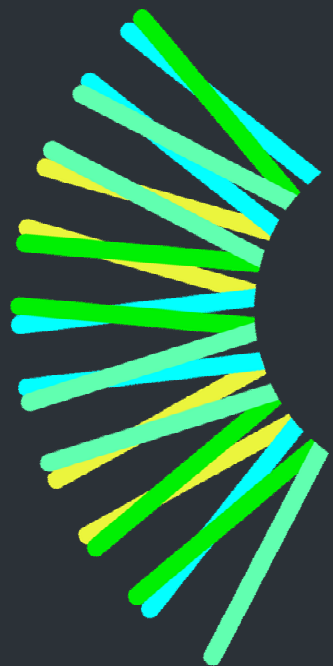


Certain statements in this news release constitute “forward-looking statements” or “forward-looking information” within the meaning of applicable securities laws. Such statements involve known and unknown risks, uncertainties and other factors, which may cause actual results, performance or achievements of the Company or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements or information. Such statements can be identified by the use of words such as “may”, “would”, “could”, “will”, “intend”, “expect”, “believe”, “plan”, “anticipate”, “estimate”, “scheduled”, “forecast”, “predict” and other similar terminology, or state that certain actions, events or results “may”, “could”, “would”, “might” or “will” be taken, occur or be achieved. These statements reflect the Company’s current expectations regarding future events, performance and results, and speak only as of the date of this release.

Readers are cautioned that actual results may vary from those presented.

All such forward-looking information and statements are based on certain assumptions and analyses made by Sunrise Energy Metals’ management in light of their experience and perception of historical trends, current conditions and expected future developments, as well as other factors management believe are appropriate in the circumstances. These statements, however, are subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those projected in the forward-looking information or statements including, but not limited to, unexpected changes in laws, rules or regulations, or their enforcement by applicable authorities; the failure of parties to contracts to perform as agreed; changes in commodity prices; delays in financing or project funding; unexpected failure or inadequacy of infrastructure, or delays in the development of infrastructure, and the failure of exploration programs or other studies to deliver anticipated results or results that would justify and support continued studies, development or operations. Readers are cautioned not to place undue reliance on forward-looking information or statements.

Although the forward-looking statements contained in this news release are based upon what management of the Company believes are reasonable assumptions, the Company cannot assure investors that actual results will be consistent with these forward-looking statements. These forward-looking statements are made as of the date of this release and are expressly qualified in their entirety by this cautionary statement. Subject to applicable securities laws, the Company does not assume any obligation to update or revise the forward-looking statements contained herein to reflect events or circumstances occurring after the date of this release.



Sunrise Project



Sunrise Battery Materials Complex

Resource

1Mt Ni, 160kt Co and 30kt Sc
50-year mine life (avg c. 1.75% NiEq yr 1-10)

Development-ready

Permitted, excellent community support
BFS and piloting complete, mining lease granted

Products

Ni/Co sulphate and scandium
C1 cash cost -\$0.80/lb Ni after credits

ESG

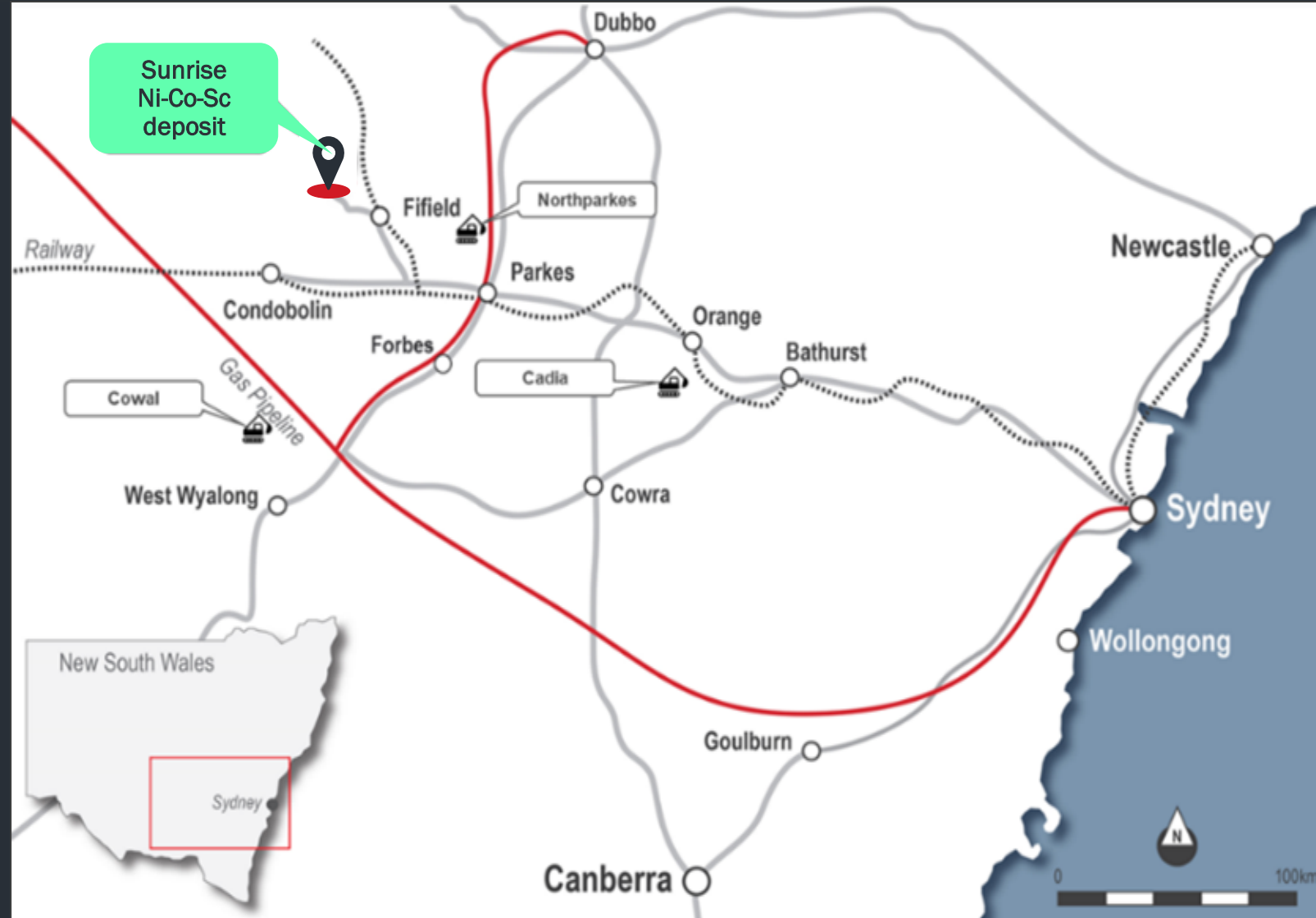
100% renewable power and low CO2 footprint
Inflation Reduction Act compliant

Infrastructure

Rail, port and roads; freehold land; water rights

Schedule to first production

Three-years from final investment decision



ESG	Supply chain	Geopolitics
<ul style="list-style-type: none"> ❖ Designed to run on 100% renewable power ❖ Approximately 60% of the operation's energy is supplied on-site from co-gen ❖ A focus on responsible waste management, on-site water treatment and high environmental monitoring and reporting standards 	<ul style="list-style-type: none"> ❖ Integrated mining-to-refining reduces supply chain fragmentation and avoids offshore processing ❖ Offtake arrangements are designed to address both supply and pricing risk for customers ❖ Reduces cost by maximising recovery of valuable by-products, such as scandium and ammonium sulphate 	<ul style="list-style-type: none"> ❖ Australia is a safe and stable jurisdiction for development ❖ Governments are 'friend-shoring' to establish independent, regional supply hubs ❖ Increasing overlap between energy transition objectives and defence and security-related goals

Large ore body with low mining risk



- A shallow deposit (40m depth) with simple, free-dig mining
- Enough nickel and cobalt to support c. 1.2 – 1.6TWh of battery production capacity over the life of mine
- A single ore body that can be processed with minimal ore transport

Scale illustration demonstrating the edge of the Sunrise mining pit over Central Park, NY

Bankable feasibility study results – first 25 years

Annual Production¹

Nickel: 21.3 ktpa

Cobalt: 4.4 ktpa

Returns

NPV_g: US\$1.2 billion

IRR: 15.4%

Capex and Payback

US\$1.8 billion

<5 years

Cash Flow

EBITDA: US\$10.8 billion

Avg FCF (post-tax): US\$308 million pa

Cash Cost

Negative US\$0.80/lb Ni after
by-product credits

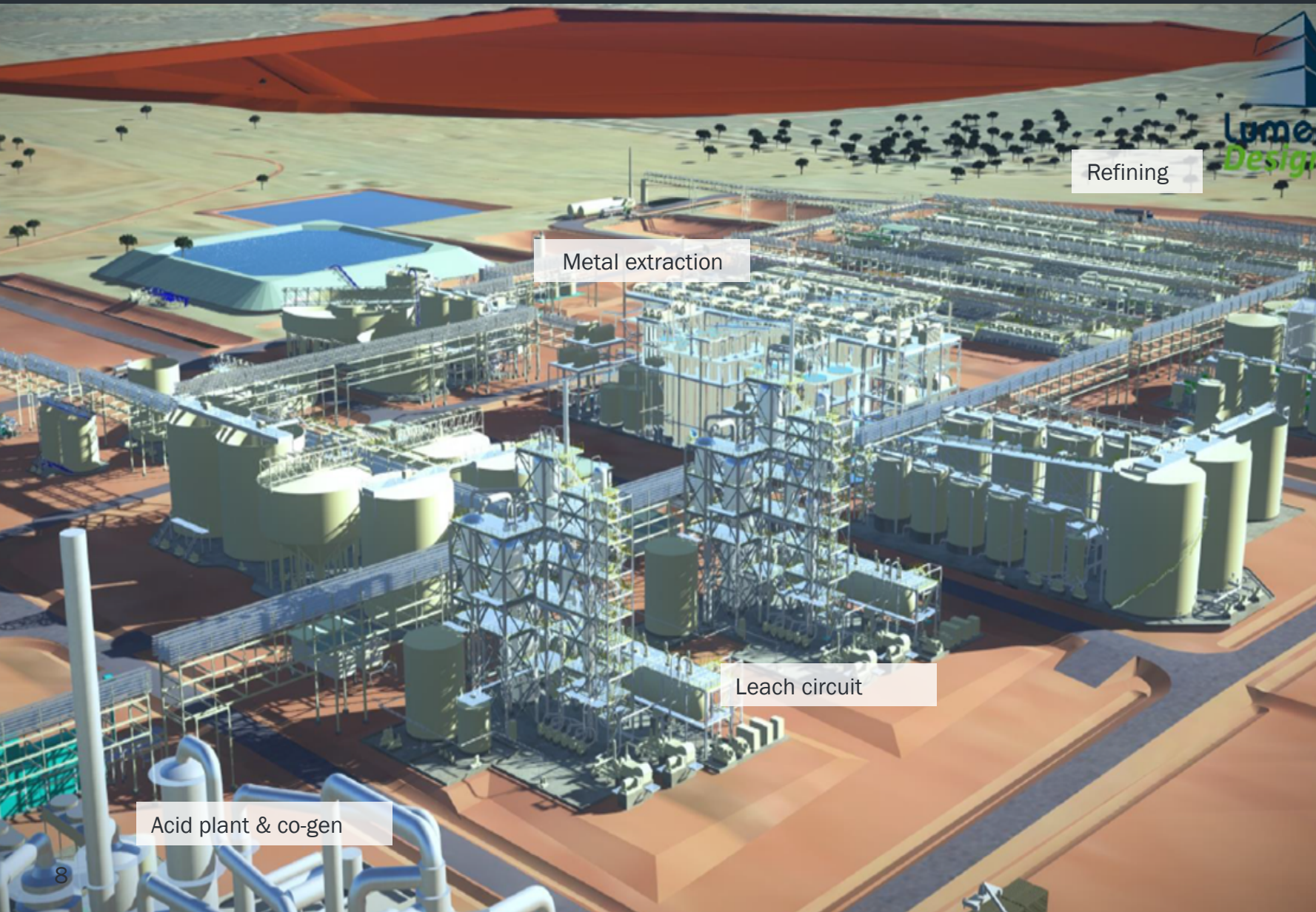
Mine Life

50-year mine life

Expansion options to c. 40-50 ktpa Ni

1) Average over first decade of operation. Refer to ASX Release of 28 September 2020 for more details.

Sunrise plant layout



- Conventional 4th Gen PAL design – numerous projects are being delivered successfully and quickly
- Sunrise design and engineering was supported by Fluor and ENFI as the lead FEED design and engineering contractors
- The refinery incorporates a recycling circuit to process black mass
- Post year-end Sunrise announced an update on activities focussed on the development and financing of its Sunrise Project
- Feedback from both the auto sector and US Government agencies has focussed on the potential of locating Sunrise's nickel and cobalt refinery in the United States, which could satisfy eligibility criteria under several US government funding programs.

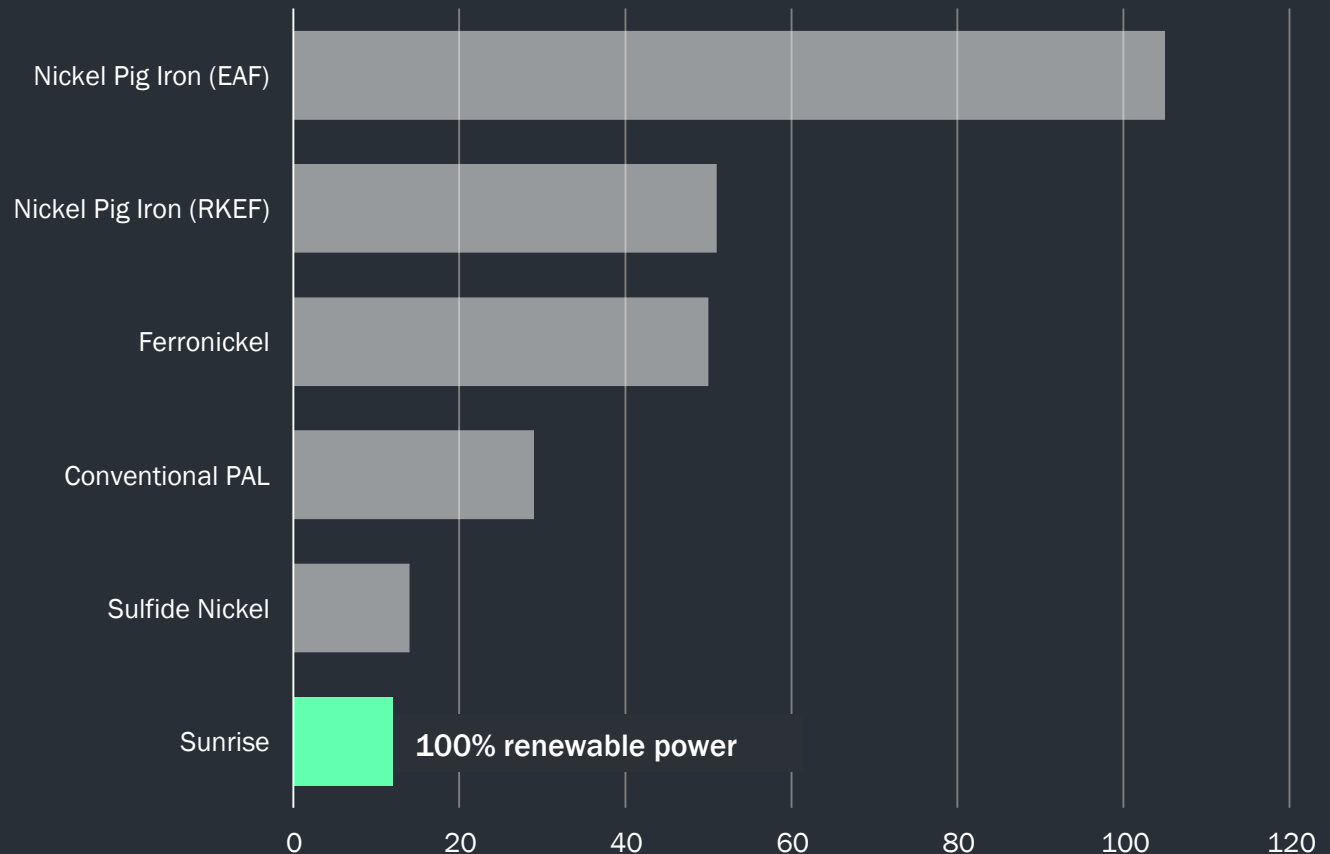
Procurement and pre-construction activities



- Procurement on long-lead items has commenced, with two autoclaves (>3mtpa capacity) delivered to Australia
- Option to readily increase PAL feed by ~20% against current plan based on autoclave capacity
- Capital for de-bottlenecking in Yr4 is estimated at \$67M (adds a further \$400M of NPV₈ at that time)

- Approximately 60% of Sunrise's power requirements are supplied from co-gen at the acid plant – the balance from renewable power
- HPAL is relatively carbon-lite
- Nickel is the most emissions-intensive metal in the battery (c. 10x higher energy intensity than copper)
- When compared to Chinese supply from Indonesia – with its attendant emissions and tailings risks – Sunrise delivers far better ESG outcomes with lower reputational risk

Carbon intensity of nickel production (Scope 1-3)
(kg CO₂/ kg Nickel in sulphate)



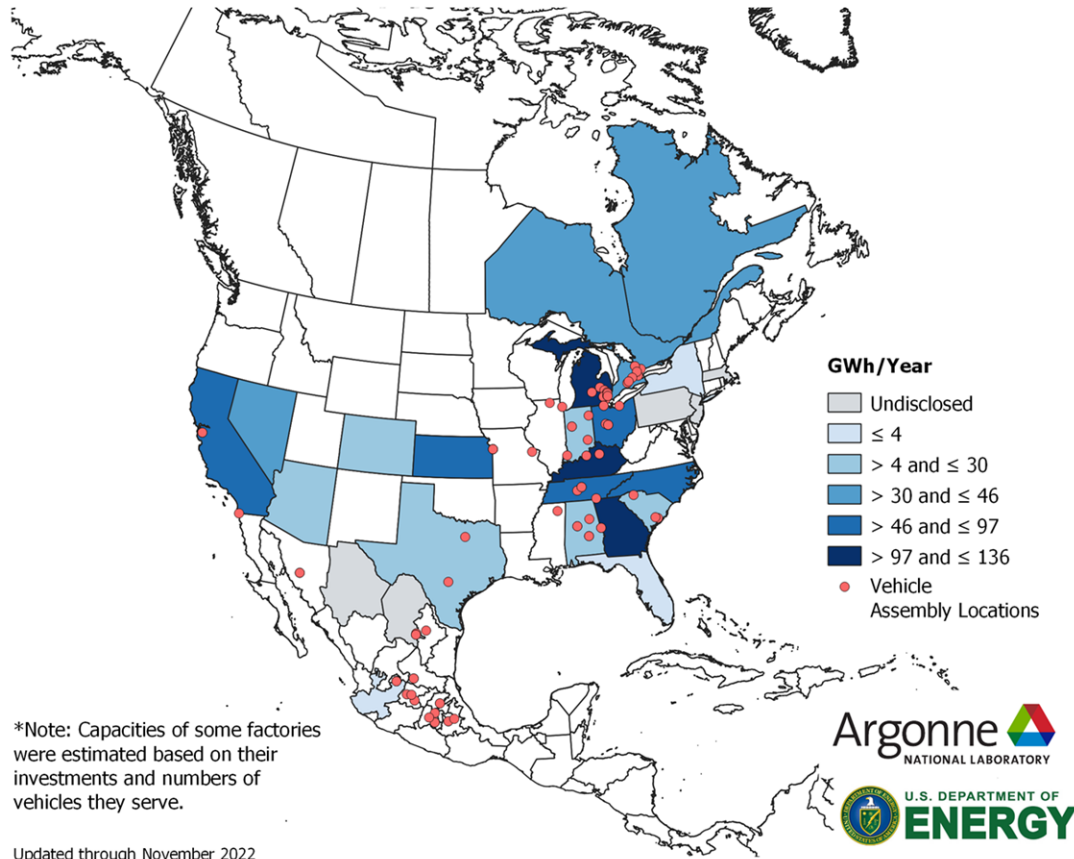
Source: Energetics, Life Cycle Assessment Report: greenhouse gas emission comparison for nickel production routes (Feb 2020). See also Nickel Institute, Life Cycle Data Assessment. Energy consumption for conventional PAL, ferronickel and NPI products assumes Indonesian development utilizing coal as primary power source. Sulfide nickel data varies between 9 and 19 kg CO₂e depending on power source.

- By 2030 there will be approx. 200Mtpa of tailings waste from nickel hydromet operations, in a region prone to earthquakes, high rainfall and direct community impacts
- Local fisheries are already significantly impacted
- The mining industry has been here before: Ok Tedi, Grasberg, Ramu, Bougainville, Mt Kare, Batu Hijau....
- This supply chain threatens to undo 50 years of effective mining industry investment in environmental and social performance



The US battery landscape by 2030

Planned Battery Plant Capacity in North America by 2030



By 2030:

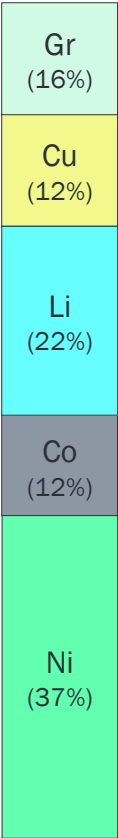
- there will be ~30 cell manufacturing plants in the US supporting auto assembly,
- these plants will have a nameplate capacity of c. 980GWh pa, and
- this supports production of 10m EVs annually, equivalent to total US light vehicle production in 2022

These cell plants will require (\$ is value of metal):

➤ Nickel	420ktpa (\$9.3b)
➤ Cobalt	55ktpa (\$2.7b)
➤ Lithium	75ktpa (\$5.5b)
➤ Manganese	50ktpa (\$0.2b)
➤ Cu foil	240ktpa (\$2.9b)
➤ Graphite	655ktpa (\$4.6b)

Note: Assumes 65% plant capacity utilization by 2030; cathode chemistry split of 85:15 between NCM:LFP utilizing NCM811; avg 60kWh battery pack/EV. Lithium is elemental lithium, not LCE. Metal value is long-term consensus prices for all eligible "Constituent Materials" comprising the battery, as defined by s30D of the Internal Revenue Code, being the value of NiSO₄, CoSO₄, LiOH, MnSO₄, electrode-grade copper foil and coated spherical graphite.

Nickel and cobalt determines IRA eligibility



c. 50% of IRA ‘qualifying value’
for raw materials comes from
nickel and cobalt

IRA Qualifying Percentages for Critical Minerals

2023	2024	2025	2026	2027
40%	50%	60%	70%	80%

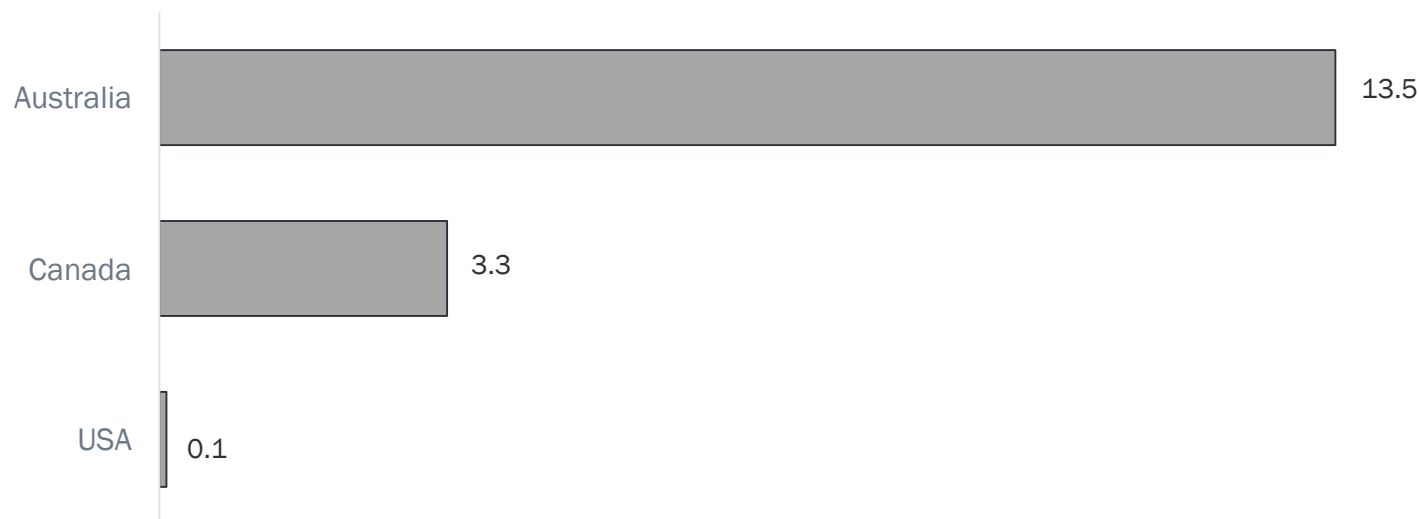
- The US Inflation Reduction Act grants up to \$3,750 per electric vehicle as a tax rebate for batteries containing a minimum % by value of “Constituent Materials” that are mined or processed in qualifying jurisdictions¹ – Australia is a qualifying jurisdiction
- That percentage will be 50% in 2024 and increases to 80% by 2027
- The rebate is a key driver for OEM economics, as it can off-set the cost of all metals in the battery
- By 2024 nickel and cobalt will be the sole determinant of access to the IRA subsidy/rebate

1. Qualifying jurisdictions are: Australia, Bahrain, , Canada, Chile, Colombia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Israel, Japan, Jordan, Korea, Mexico, Morocco, Nicaragua, Oman, Panama, Peru, and Singapore.

Nickel is a problem for the US

Nickel ore reserves and mineral resources

(mt contained Ni)

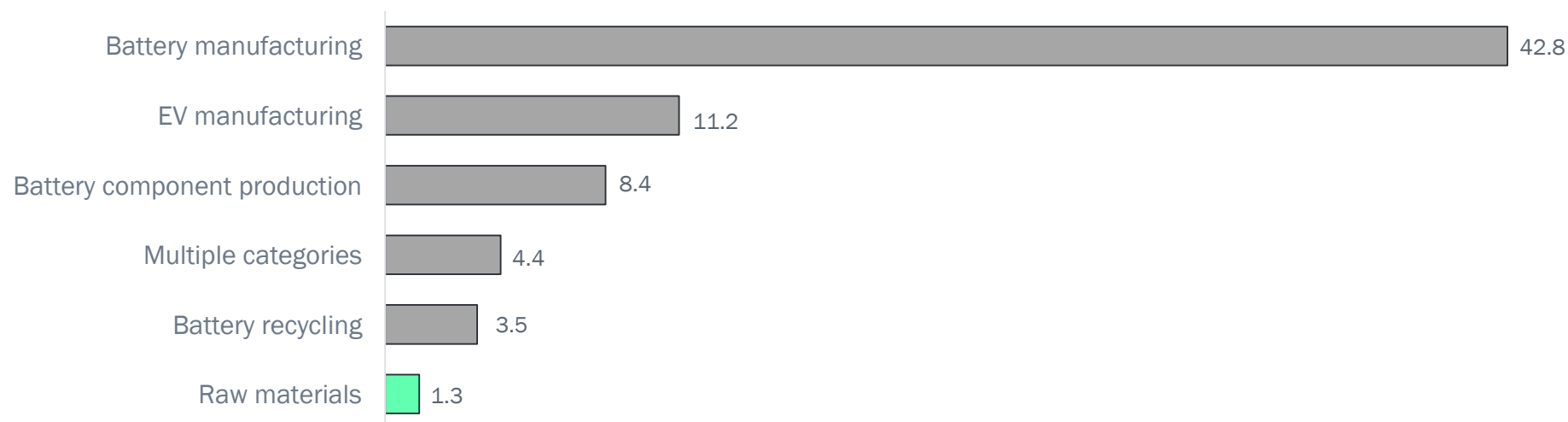


Source: SNL Global Resource Database. Numbers based on published Ore Reserves and Measured and Indicated Mineral Resources. A 0.5% Ni cut-off grade was applied to Ore Reserves to ensure only projects with sufficient likelihood of development were included.

- The US must acknowledge its geological constraints and prioritise
- Exploration is important but will take decades to deliver – the US must work with its allies
- Nickel laterite resources are the only viable option for scaling rapidly in both nickel and cobalt
- However, like China, we must invest to develop expertise in processing refractory ores

The IRA – building a house with no foundations?

North American EV supply chain spending announced since passage of Inflation Reduction Act
(\$ billion)



Source: BloombergNEF. Tracks investments in North America through August 10, 2023. 'Multiple categories' refers to investments where the amount dedicated to each category has not been disclosed.

Investment summary



Australia's most advanced nickel-cobalt-scandium project with a 50-year mine life



Fully integrated from mine to battery chemicals with an average annual metal-equivalent production of 21.3kt of nickel and 4.4kt of cobalt (as sulphate)



Sustainably designed to operate on 100% renewable power with industry-leading carbon footprint, water re-use and responsible waste management



Average free cash flow (post-tax) of US\$308 million pa and NPV₈ of US\$1.2 billion



Evaluating options to locate nickel and cobalt refinery in the United States to unlock funding opportunities



Uniquely positioned as a western world provider of sustainable battery materials – currently engaged on securing funding and offtake



Board



Robert Friedland
Co-chair & Non-Executive Director



Jiang Zhaobai
Co-Chair and Non-Executive Director



Sam Riggall
Managing Director
And Chief Executive Officer



Eric Finlayson
Non-Executive Director



Stefanie Loader
Lead Independent Non-Executive Director



Trevor Eton
Non-Executive Director



Ben Stockdale
Chief Financial Officer



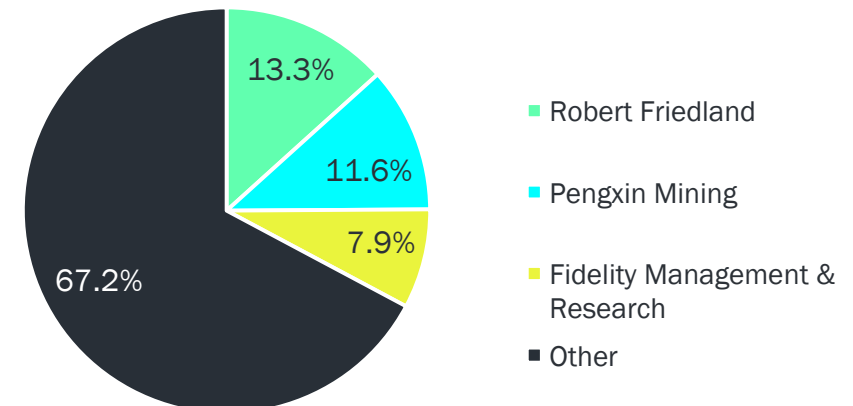
Melanie Leydin
Company Secretary

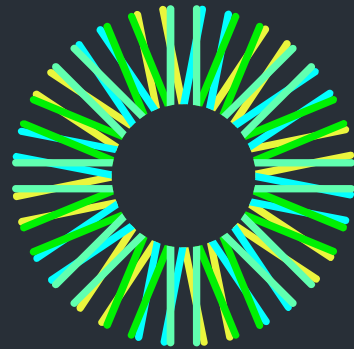
Senior Management

Sunrise Energy Metals Ltd

ASX Code	ASX:SRL
OTCQX Code	OTCQX:CTEQF
Shares on Issue	90.2M
Last Share Price (at 30 September 2023)	0.77
Market Capitalisation	A\$69 million
Cash (as at 30 September 2023)	A\$14.7 million
Options and performance rights	1.7 million

Major shareholders (at 26 October 2023)





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Corporate

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Investors

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