

ASX ANNOUNCEMENT

PETRA INVESTOR FORUM PRESENTATION

5 October 2021



Arafura Resources Limited (ASX:ARU) (“**Arafura**” or the “**Company**”) is pleased to attach a copy of its presentation delivered at an investor forum hosted by Petra Capital via video conference. Mr Gavin Locker, Managing Director and Mr Peter Sherrington, Chief Financial Officer/Company Secretary presented the Nolans Project.

-ENDS-

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“Our goal is to be a trusted global leader and supplier of choice for sustainably mined and processed rare earth products, helping our customers deliver clean and efficient technologies. We are committed to delivering positive intergenerational economic, environmental and social benefits to our stakeholders.”

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NdPr

Nolans Project Investor Update

5 October 2021





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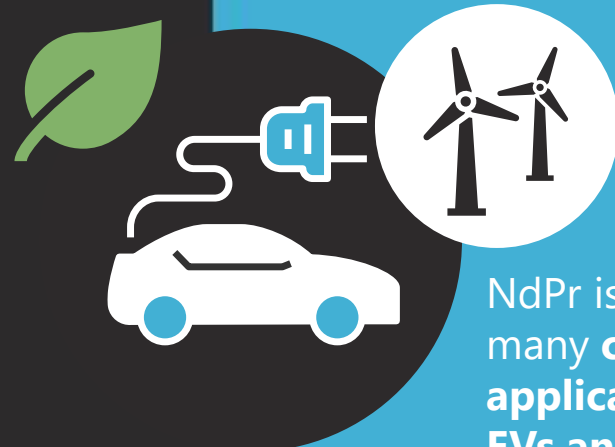
Mineral Resources and Ore Reserves

The information in this presentation that relates to Mineral Resources is extracted from the Company's ASX announcement dated 7 June 2017 (Detailed Resource Assessment Completed) and was completed in accordance with the guidelines of the JORC Code (2012). The information in this presentation that relates to Ore Reserves is extracted from the Company's ASX announcement dated 16 March 2020 (Major Increase in Mine Life for the Nolans Project) and was completed in accordance with the guidelines of the JORC Code (2012). Arafura Resources confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the original market announcements continue to apply and have not materially changed. Arafura Resources confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

Production Targets and Forecast Financial Information

The information in this presentation that relates to production targets and financial information is extracted from the Company's ASX announcement dated 11 May 2021 (Nolans Project Update). The production target is based on 12% Proved Reserves, 62% Probable Reserves and 26% inferred resources as reported in the Company's ASX announcement dated 11 May 2021. There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised. Arafura confirms that all material assumptions underpinning the production target and forecast financial information derived from the production target set out in the Company's ASX announcement dated 11 May 2021 (including any assumptions referred to in the Company's ASX announcement dated 11 May 2021 that were used from the DFS as set out in the Company's ASX announcement dated 7 February 2019 (Nolans Project Definitive Feasibility Study) or from the Updated Mining Study as set out in the Company's ASX announcement dated 16 March 2020 (Major Increase in Mine Life for the Nolans Project)), continue to apply and have not materially changed.

Corporate Snapshot



NdPr is central to many **clean energy applications** including **EVs and wind turbines**



Nolans is a shovel-ready world class NdPr project in the Northern Territory



NdPr is the key input for high performance NdFeB permanent magnets



Arafura is aiming to be a trusted global leader for sustainably mined and processed rare earth products

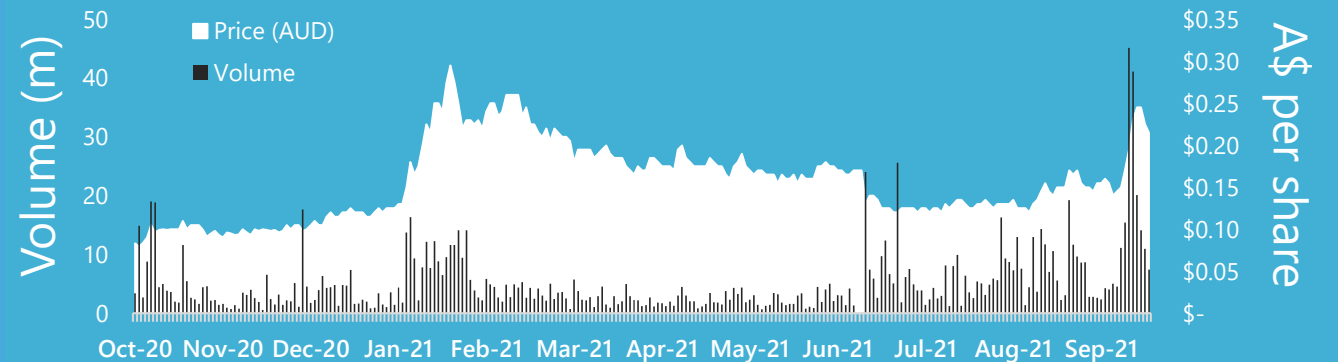


Production is aligned with forecast supply shortage

Capital Structure	
ASX Code	ARU
ASX Share Price (1 October 2021)	\$0.215
Shares on Issue	1,550m
Market Capitalisation	\$333.2m
12 Month Liquidity	\$211.2m
Cash*	\$10.79m
Debt	Nil
Enterprise Value*	\$322.45m

**Data based on 30 June 2021 Quarterly Report*

Share Price Performance (Oct 2020 to Sept 2021)



(ASX:ARU)

Nolans Project Key Info



Advanced Manufacturing in Australia

Nolans is the **only** NdPr focused project in Australia that plans to **mine and process ore to oxide at a single site.**



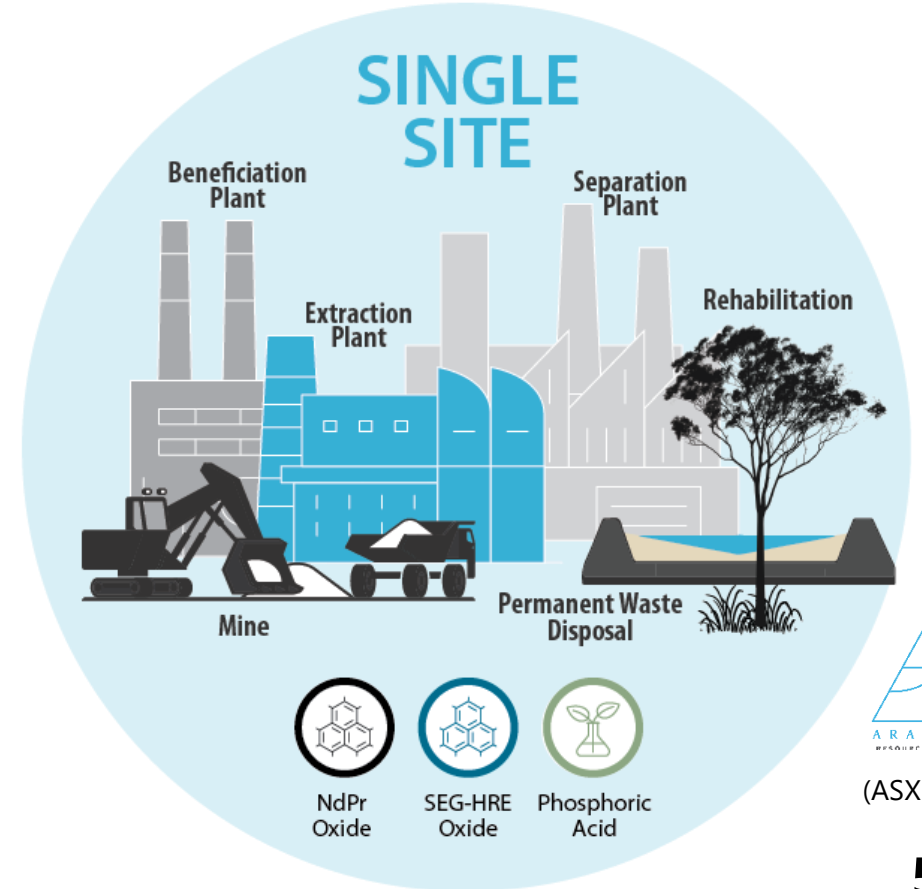
Supplier of choice for sustainably mined NdPr oxide.



All environmental approvals have been secured and waste management & site rehabilitation fully costed.



Single site processing provides traceable product and waste management certainty which is **aligned with customers' ESG expectations.**



Nolans NdPr Shovel Ready



Regulatory

- ✓ Federal & NT Environmental Approvals secured
- ✓ Government and Minister support for senior debt facility



Security of Tenure & Social License to Operate

- ✓ Native Title Agreement
- ✓ Mineral License Granted
- ✓ Federal Major Project Status
- ✓ Indigenous Engagement Strategy



Technical

- ✓ DFS and Project Update complete
- ✓ Extensive piloting of ore to oxides flowsheet
- ✓ Appointment of KBR & Wave to in-house team
- ✓ **Front End Engineering & Design (FEED) commenced**



Commercial

- ✓ Customer verification of oxide products
- ✓ **Australian Government provide conditional letters of support for \$300M in debt**
- ✓ **\$45.5M Successful capital raising completed to begin FEED**
- Offtake engagement (advanced discussions underway)
- Project funding (commenced senior debt process & strategic equity)

Progress Towards Construction



Hydrometallurgical Plant FEED Commenced August

- Hatch Ltd appointed to lead
- Final process engineering design progressing
- Equipment Review & rationalization underway
- Equipment tenders to commence in October

Non-Process Infrastructure FEED early works progressing

- Earthworks
- Water
- Camp
- Communications

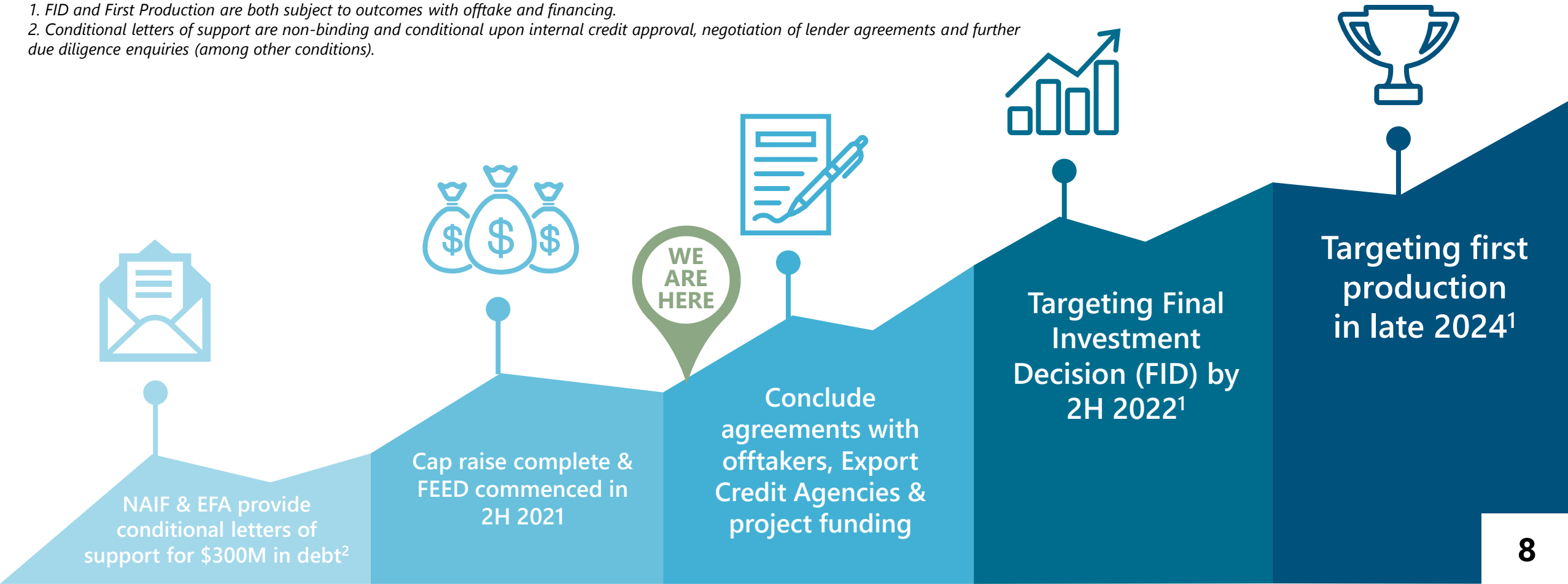
Arafura's Owners' team including personnel from KBR and Wave ramping up.

Nolans Key Development Milestones

**Milestone targets are indicative and subject to change and are contingent upon funding, offtake activities and general market conditions*

1. FID and First Production are both subject to outcomes with offtake and financing.

2. Conditional letters of support are non-binding and conditional upon internal credit approval, negotiation of lender agreements and further due diligence enquiries (among other conditions).



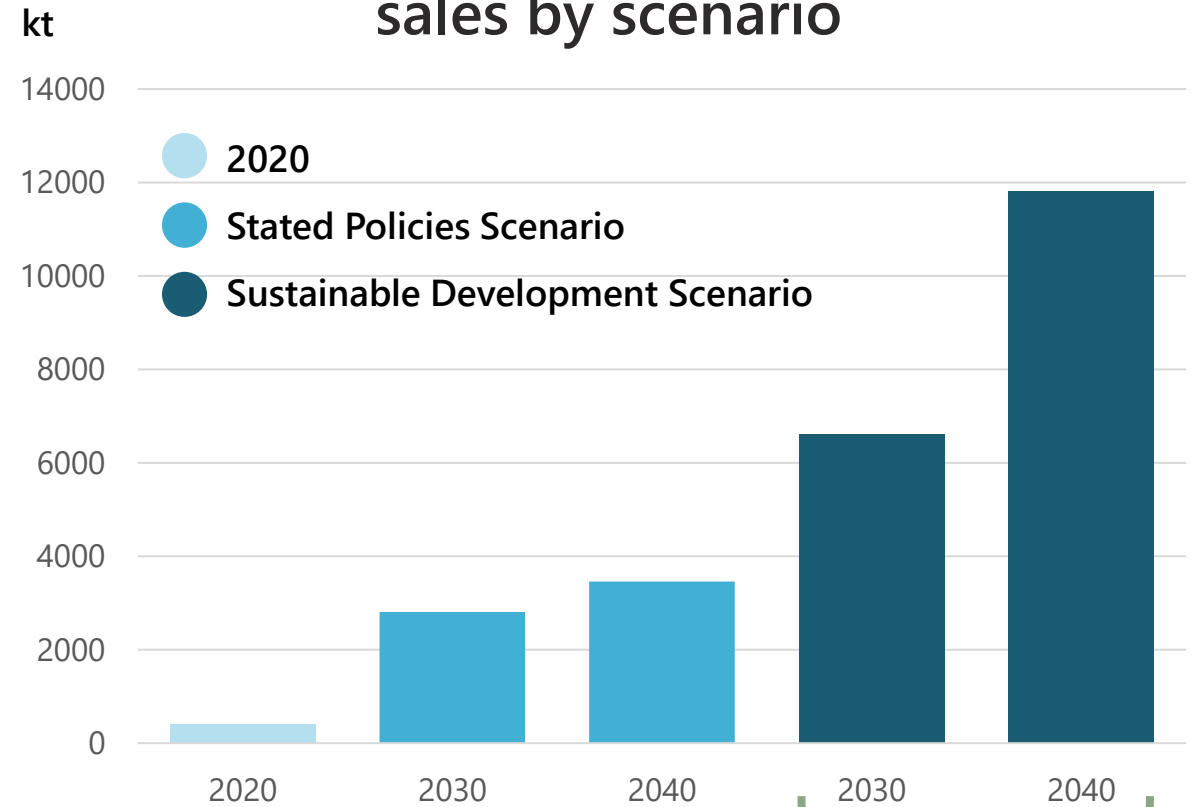
Global Market Info



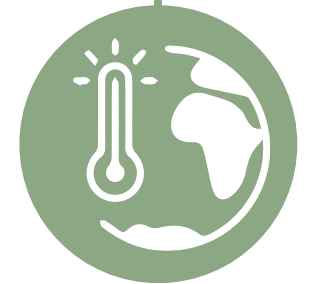
A Vital Cog in the Electric Vehicle Revolution

- ✓ EV market growth is exponential: **10 to 40 times** in the next 20 years
- ✓ This will require **6-15 times more rare earth elements**
- ✓ Most EVs need about **1kg** of rare earths for their motor magnets
- ✓ Just 0.05% of the vehicle cost: **but it can't run without it**
- ✓ The current semiconductor shortage highlights how a **tiny cog in the supply chain can disrupt the global market**

Total mineral demand from new EV sales by scenario



Sustainable Development Scenario is where the Paris Agreement goals on climate change are met

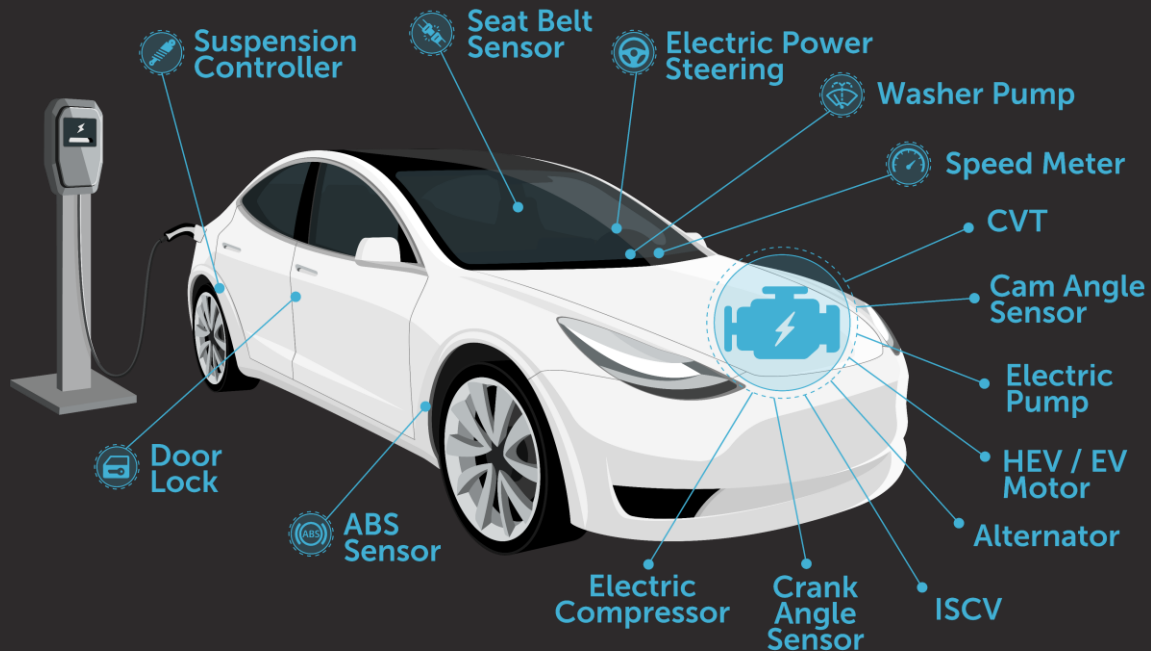


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A lesson in the auto-semiconductor shortage

Urgency for NdPr supply security

NdFeB Magnet Components in an EV



- ✓ The automotive semiconductor shortage has caused billions of dollars in lost revenue for the Auto industry
- ✓ Like the semiconductors, high performance NdFeB magnets are a small but vital part of an EV
- ✓ China is the only country to have a domestic solution for their supply chain:
 - ✓ Consolidating raw material production
 - ✓ Investing in magnet capacity
- ✓ There is high urgency for the Non-Chinese auto sector to secure future supply of NdPr otherwise global shortages are imminent

NdPr Market Opportunity



SUPPLY

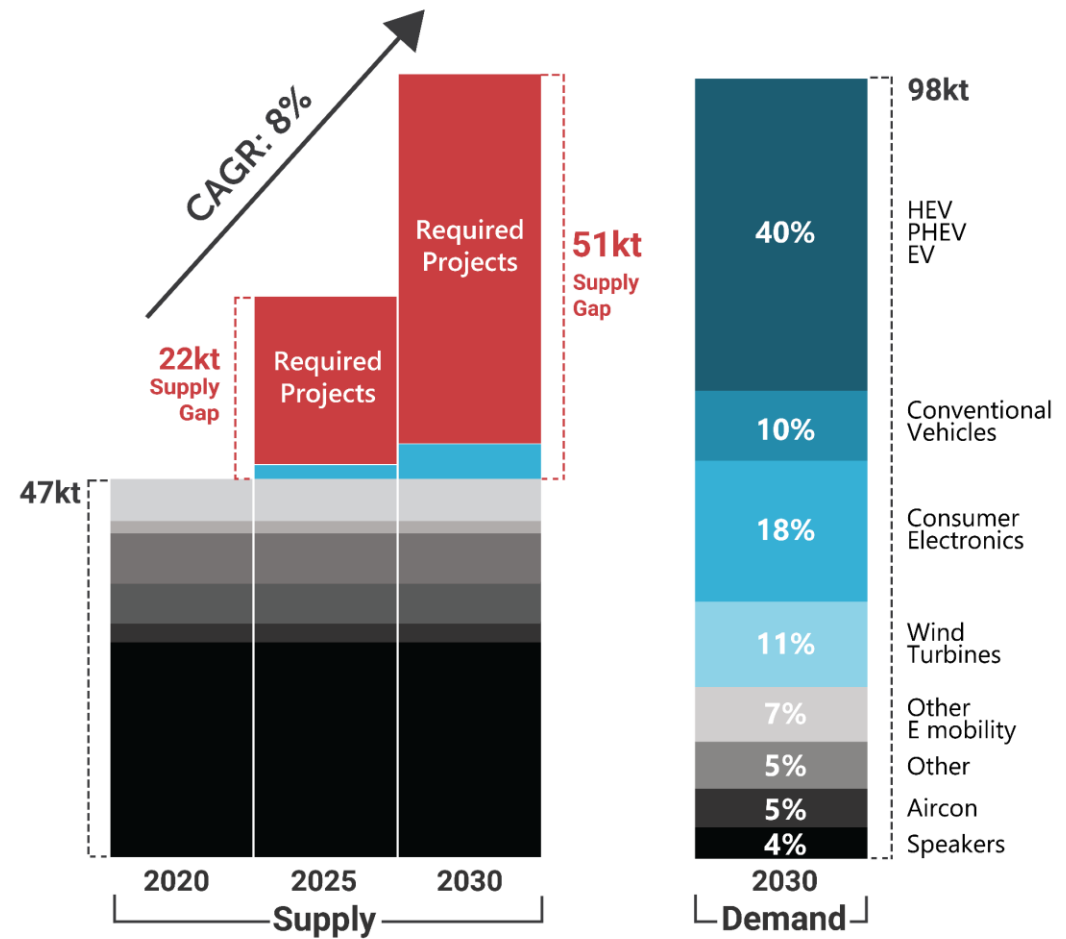
- ✓ Market analysts forecast a supply gap that represents 109% of global supply today and is in excess of 11 Nolans Projects
- ✓ The emerging supply gap has extra significance for companies not aligned with the China 2025 strategy



DEMAND

- ✓ Automotive sector is forecast to consume nearly 50% of NdFeB supply
- ✓ Supply gap is growing at a cumulative annual growth rate (CAGR) of 8%
- ✓ 2030 forecast assumes ~34 million EVs

NdPr Supply & Demand

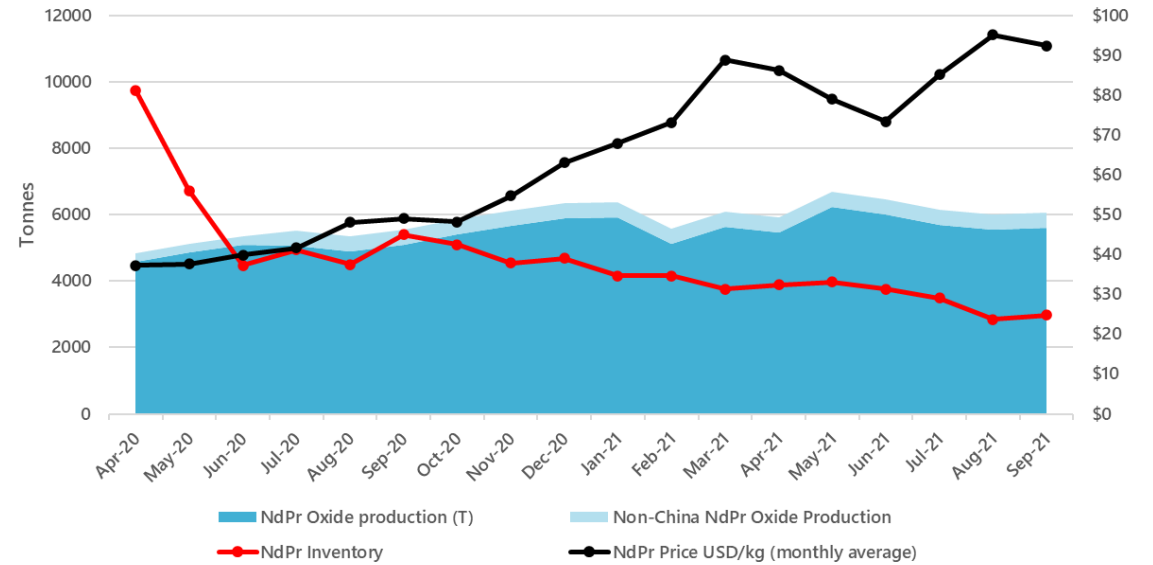


Source: Arafura internal Supply Demand forecast referencing against data from CRU, Rare Earth Market Study 2020; Roskill, Rare Earth Market Analysis 2018, Adamas Intelligence, Rare Earth Market Outlook to 2030.

NdPr Price Rise

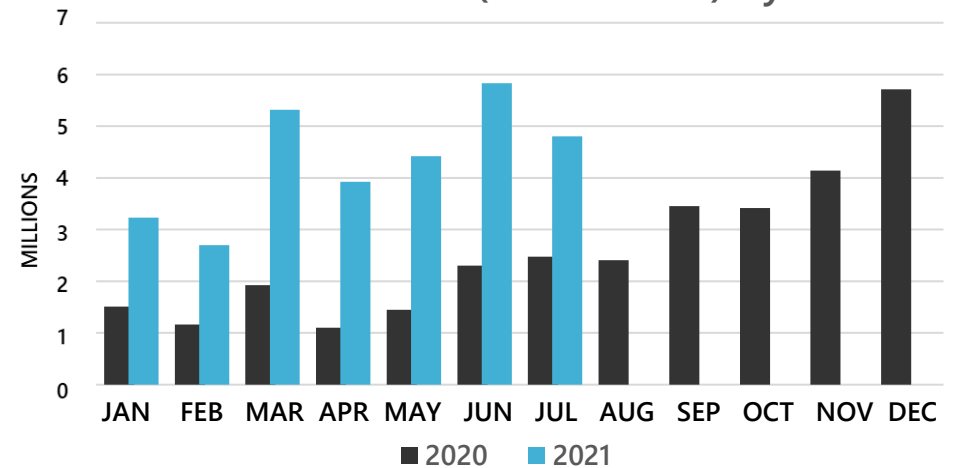
- ✓ Chinese inventory stockpiles down by ~60% since mid-2020
- ✓ Chinese producers near full capacity
- ✓ Supply chain issues highlighted by growing EV sales
- ✓ Critical Minerals Initiatives and supply chain de-risking required to facilitate government policies and targets for E-mobility and renewables

NdPr Oxide Output & Price EXW China



Source: Lynas, BAINFO, Asian Metals

Global EV sales (BEV + PHEV) by Month



Source: EV Volumes, Inside EV



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Offtake & Funding



Offtake Strategy

Targeting NdPr users not aligned with *Made in China 2025* strategy

- ✓ Progressing Offtake agreements with customers seeking supply security with a sustainable NdPr producer
- ✓ Prices rising materially as supply tightens



Nolans aims to supply **5-10% of global demand** for NdPr oxide



Arafura is in discussions with **10 parties** for **>260% of Planned Production¹** with a view to secure **85% as binding offtake**



Current indicative sales opportunities				
USA	Europe	Japan	Korea	China
10,000 tonnes of NdPr Oxide ¹				1,800t ¹
OEM Magnet	OEM Wind Turbine Manufacturer E-Motor	E-Motor Magnet	OEM/Motor Trader	MOU JingCi Material Science MOU Tianhe Magnetics

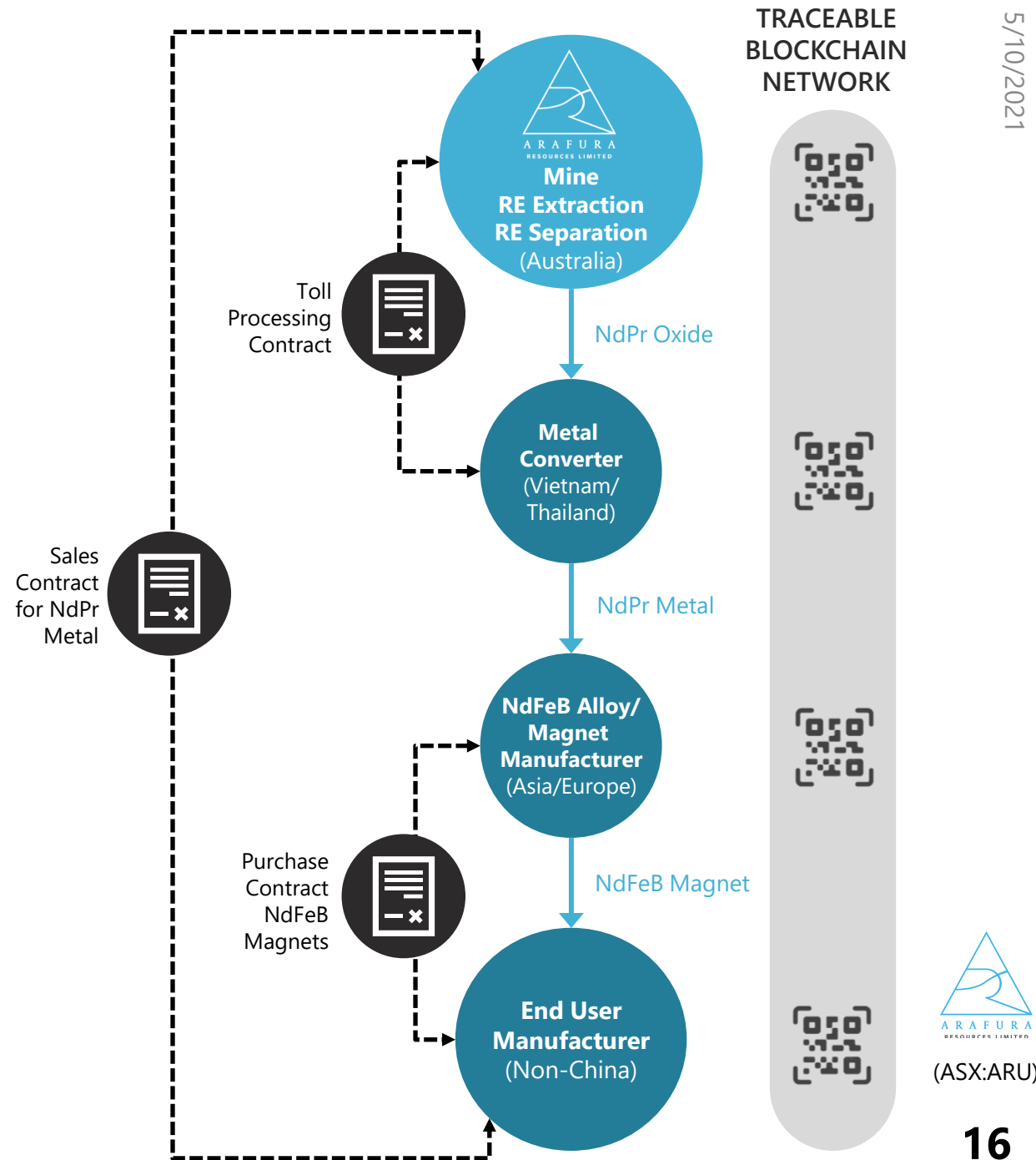
1. Planned Production refers to the average annual production from Nolans of 4,440 tpa (Refer ASX Announcement dated 11 May 2021). Volumes allocated to China may be reduced where offtake is secured in other jurisdictions. Arafura will keep the market informed of entry into any binding offtake arrangements.

Nolans Supply Chain Model

Sustainable producer of NdPr to align to “green procurement” strategy

- 1 Offtake Model proposes ‘Toll Processing’ of metal providing a complete traceable and verified supply chain solution to satisfy end users sustainability requirements
- 2 Offtake Model proposes delivery of NdPr metal into End Users existing supply chain
- 3 Provides customers with security of NdPr supply, verified traceable supply and optionality to direct material to a chosen magnet maker

ARU has an MoU with SE Asia based toll metal converter and aiming to execute a tolling agreement



ESG - Current activities and initiatives

"Arafura's ESG commitment is to be a trusted global leader and supplier of choice for sustainably mined and processed rare earth products, helping our customers deliver clean and efficient technologies. We are committed to delivering positive intergenerational economic, environmental and social benefits to our stakeholders."



Prioritise GHG Emissions and Water Management

- Water reduction strategy
- GHG Emissions Audit and reduction study
- Renewable energy – Solar power initiative, Commitment to Net Zero GHG



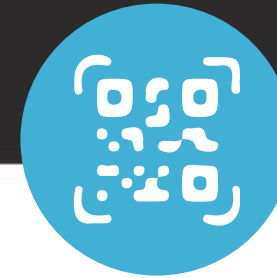
Finalise Update of Sustainability Report

- Signatory of the UN Global Compact
- Comprehensive report that satisfies requirements of global ESG ratings agencies and reporting standards
- Due 2H 2021



Pending Member in IRMA

- Arafura will complete the IRMA Ready assessment standard as soon as it is launched



Traceability – Blockchain Technology

- Aligned with customers' ESG expectations
- Will allow tracing of Nolans sustainably produced products through entire supply chain to customers



Innovation and Technology

- Downstream value add opportunities
- Ongoing R&D, low carbon metallisation process
- Options for hydrogen or other energy storage solutions

Nolans - Part of Australia's Critical Minerals Sector & Global New Energy Economy

Critical minerals are strategic for governments and will enable energy transition

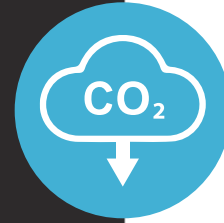


- ➔ Australian Government leveraging critical mineral reserves to provide Australia with a place in the value chain for processing and supply of critical materials.
- ➔ Morrison Government launches \$2 billion Critical Minerals Facility
- ➔ Arafura has secured conditional letters of support¹ for senior debt facility:
 - ✓ Export Finance Australia (EFA) for a 15-year facility for \$200m
 - ✓ Northern Australia Infrastructure Facility (NAIF) for a 15-year facility for \$100m



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Funding Strategy Leverages Global Focus On Critical Material Supply Chains



Most countries targeting low carbon transport and renewable energy to achieve net-zero emissions



Europe, Japan, Korea and US recognise the need for diversified and robust critical material value chains



Foreign ECAs seeking well structured projects for the supply of critical materials for the manufacturing of EVs and renewable technologies

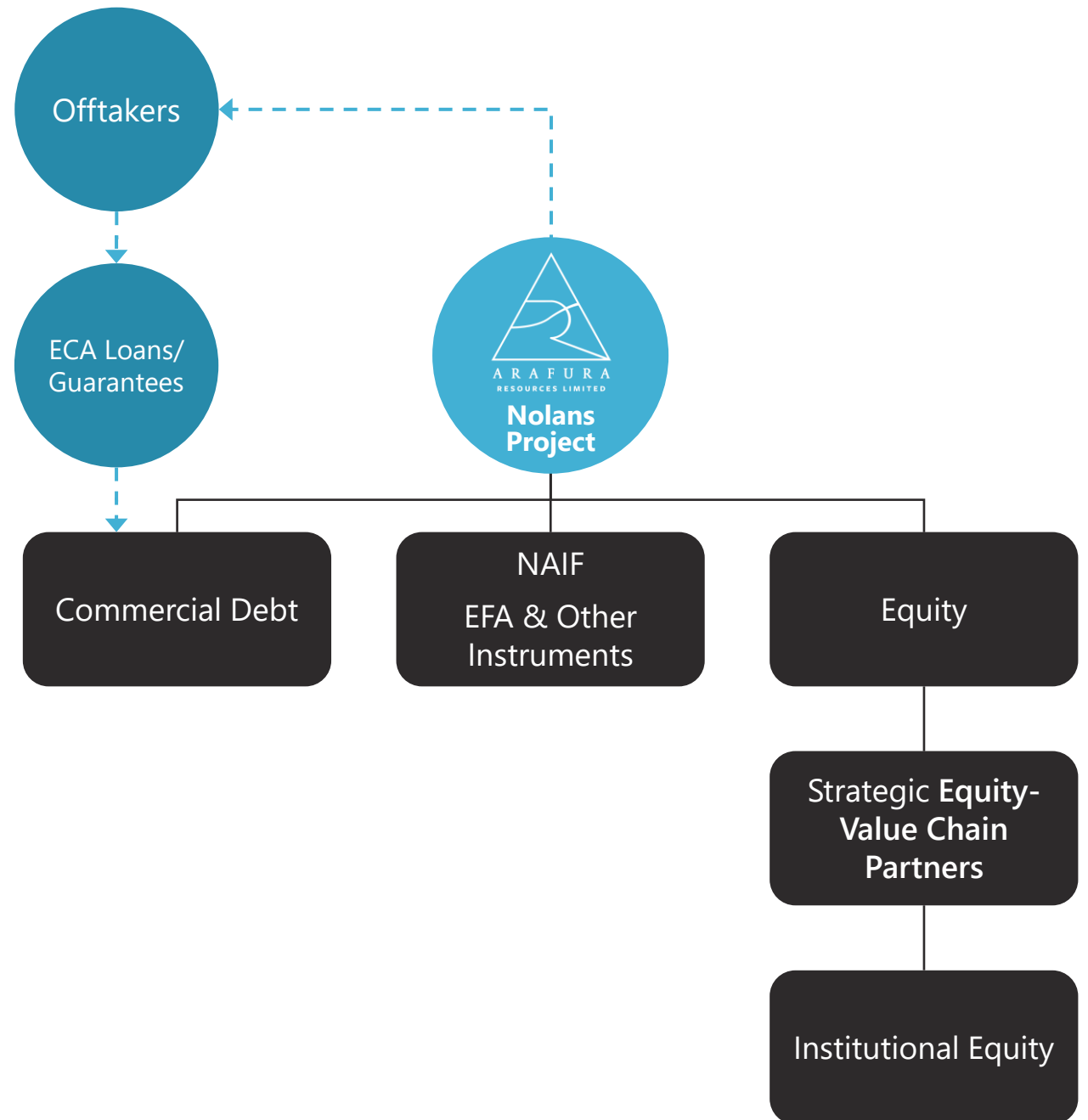


OEMs looking to engage upstream to secure raw materials and supply chain risks can be mitigated via a partner approach. Arafura's momentum with offtake discussion has enabled engagement to expand, to include Nolans project equity and strategic investment¹

1. The Company at this stage, has no certainty as to the timing and likelihood of negotiations with potential strategic equity partners successfully concluding or binding agreements being entered. Details of any binding arrangements will be announced to the ASX if (and when) formal agreements have been executed.

Targeted Funding Structure

- ✓ ECA debt and guarantees will be critical but not the entire funding solution
- ✓ Portfolio of funding sources
- ✓ Offtake, debt and strategic equity all interlinked and driving schedule





Contact Information



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Experienced Board



Mark Southey

NON-EXECUTIVE DIRECTOR

Mark Southey has previously held senior executive positions with Honeywell and ABB both in Australia and internationally, and more recently was part of the global executive leadership team within WorleyParsons, where he held the position of Group Managing Director for the Minerals, Metals and Chemicals Sector. He is Chair of Arafura Resources' Remuneration and Nomination Committee and is a member of the Audit and Risk Committee.



Chris Tonkin

NON-EXECUTIVE DIRECTOR

Chris Tonkin has over 35 years' experience as a senior business executive with a broad industry background in business generation, management, and strategy development. He is a member of Arafura Resources' Remuneration and Nomination and is the Chair of the Audit and Risk Committee.



Quansheng Zhang

NON-EXECUTIVE DIRECTOR

Quansheng Zhang holds a Doctoral degree in Engineering and a Masters degree in Geophysical Prospecting. He is based in Nanjing in the Peoples Republic of China and is the General Manager of Hong Kong East China Non-Ferrous Mineral Resources Co Ltd (HKECE). Quansheng has over 30 years of mineral prospecting and exploration experience, and expertise in mineral resource surveys and geophysics.



Cathy Moises

NON-EXECUTIVE DIRECTOR

Cathy Moises has extensive experience in the resources sector having worked as a senior resources analyst for several major stockbroking firms including McIntosh (now Merrill Lynch), County Securities (now Citigroup) and Evans and Partners where she was a partner of that firm. More recently in 2017-2019, Cathy was Head of Research at Patersons Securities Limited. Ms Moises is also a non-executive director of WA Kaolin Limited and an advisory panel member for Argonaut Resources Fund.



Gavin Lockyer

MANAGING DIRECTOR

Gavin Lockyer's diverse, global experience has provided management and leadership opportunities in a range of disciplines including; Accounting, Financial & Investment Banking, Major Resource Development & Operations, and Global Bank Treasuries. Over the past 20 years his career has exposed him to business practices in North America, Europe, and Australasia.

Experienced Management



Peter Sherrington

CHIEF FINANCIAL OFFICER & COMPANY SECRETARY

Peter commenced employment with Arafura in 2008 as Commercial Manager and was appointed Chief Financial Officer in July 2013. He has more than 20 years' experience in professional and corporate roles in Perth. Prior to working with Arafura, he held senior finance and commercial positions with several ASX and public unlisted entities. He has also worked in public practice for 10 years in the areas of business services and corporate advisory.



Lloyd Kaiser

GENERAL MANAGER SALES & MARKETING

Lloyd has more than 10 years' experience in the sales and marketing of industrial minerals into high value sector markets including the nuclear, automotive, and advanced ceramics sectors. Prior to joining Arafura, he held several senior positions in account management, business development and marketing across a diverse range of commodities and chemicals including alumina, coal, industrial minerals, refractories, and ceramics.



Brian Fowler

GENERAL MANAGER NT & SUSTAINABILITY

Brian has worked for over 40 years in private sector mineral companies developing a range of commodities, including rare earths, base metals, and gold. Brian is a member of the Northern Territory Mining Board, Management Board of the Northern Territory Minerals Council of Australia, and a member of Work Health & Safety Advisory Council of the Northern Territory.



Stewart Watkins

GENERAL MANAGER PROJECTS

Stewart has 25 years' experience in many facets of the mining industry including operations, engineering consulting, project development and management. Stewart is a Fellow of the AusIMM. This has included a wide range of roles including corporate and business management, business development, project/study management, process design, commissioning and process plant operation.

Attractive Project Economics

Mining and Production		
Mine Life (years)	38	
NdPr Oxide (tpa)	4,440	
SEG/HRE Oxide (tpa)	474	
Phosphoric Acid (tpa 54% P ₂ O ₅ MGA)	144,393	
Financial	US\$	A\$
Capital Cost (\$m)	768	1,056
NdPr Oxide (US\$/kg)	87	120
Rare Earth Sales Revenue (\$m/pa)	388	534
Phosphoric Acid Sales Revenue (\$m/pa)	58	79
Mining Costs (\$m/pa)	(30)	(42)
Processing Costs (\$m/pa)	(105)	(145)
General and Administration Costs (\$m/pa)	(15)	(21)
EBITDA (\$m/pa)	257	354
KPI Analysis	US\$	A\$
Operating Cost \$/kg NdPr	33.91	46.60
Operating Cost \$/kg NdPr net of P ₂ O ₅ credit	24.76	34.06
NPV ₈ after tax (\$m)	1,011	1,402
IRR after tax (%)	18.1%	

Refer to ASX Announcement Nolans Project Update dated 11 May 2021 which assumes a long-term NdPr oxide price of US\$87/kg. Average production and costs are calculated as the arithmetic annual average following the anticipated two year ramp up and excluding the final years of production from low grade stockpiles.

- ✓ Definitive Feasibility Study (DFS) update released in May 2021
- ✓ **Post-tax NPV₈ of A\$1.4 billion** and IRR of 18.1%
- ✓ Capital cost **A\$1,056m**
- ✓ **Annual average EBITDA of A\$354m**
- ✓ Low-cost producer at **US\$24.76/kg NdPr**
- ✓ Robust economics at current NdPr oxide price **US\$88/kg***

* Asian Metals (1 July – 11 August 2021 average price).

Long Life Asset

RESOURCES	TONNES (m)	RARE EARTHS TREO %	PHOSPHATE P ₂ O ₅ %	NdPr ENRICHMENT %
Measured	4.9	3.2	13	26.1
Indicated	30	2.7	12	26.4
Inferred	21	2.3	10	26.5
TOTAL	56	2.6	11	26.4

As announced on 7 June 2017. 1% TREO cut-off grade. Numbers may not compute exactly due to rounding. "NdPr enrichment" is the proportion of TREO comprising Nd₂O₃ and Pr₆O₁₁.

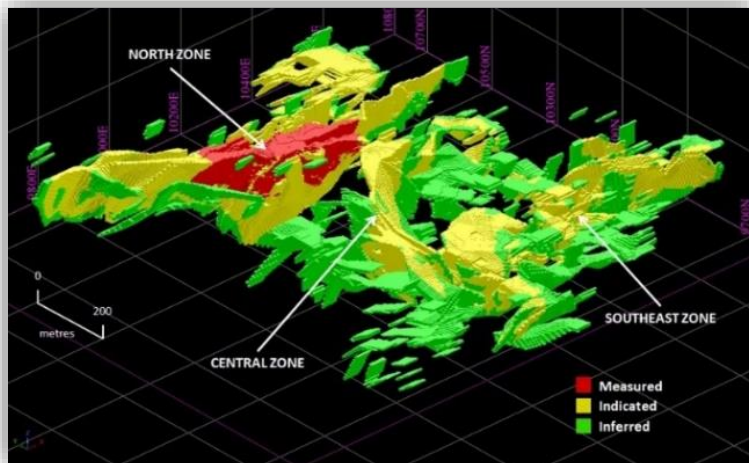
RESERVES	TONNES (m)	RARE EARTHS TREO %	PHOSPHATE P ₂ O ₅ %	NdPr ENRICHMENT %
Proved	5.0	3.0	13	26.2
Probable	24.6	2.8	13	26.5
TOTAL	29.5	2.9	13	26.4

As announced on 16 March 2020. Numbers may not compute exactly due to rounding. "NdPr enrichment" is the proportion of TREO comprising Nd₂O₃ and Pr₆O₁₁.

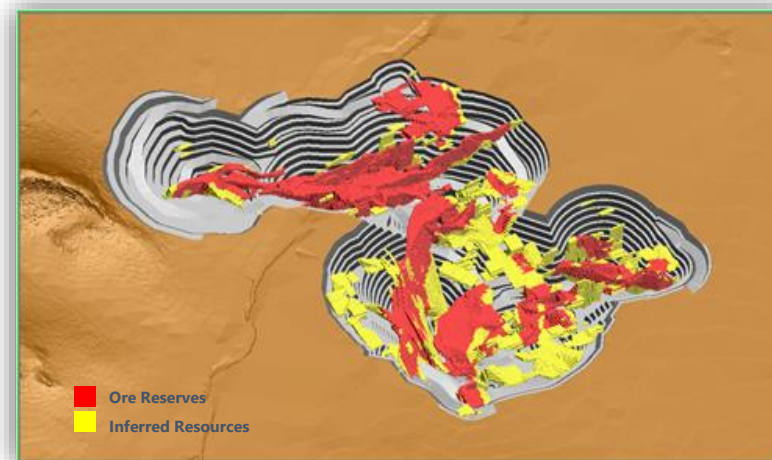
NdPr rich & open at depth

- ✓ Over 90km drilled to define and classify material types
- ✓ 29 year Ore Reserves
- ✓ 38 year Mining Inventory
- ✓ Single pit
- ✓ Expansion potential

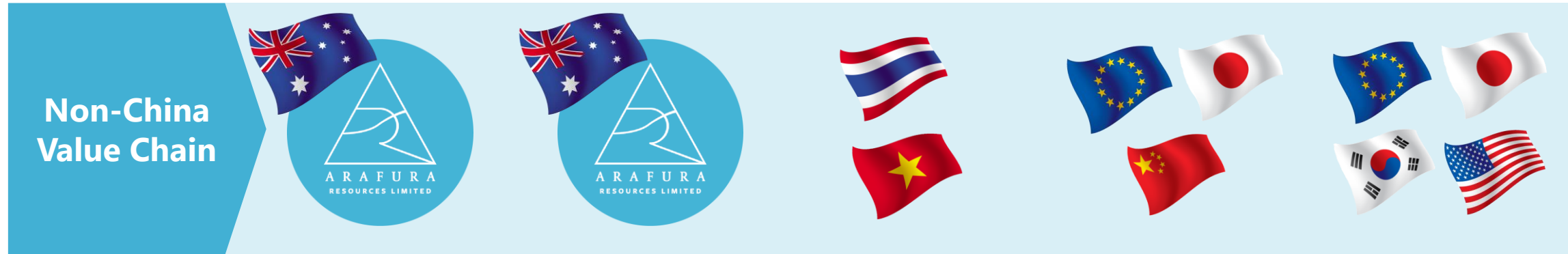
Mineral Resources



Ore Reserves



Local Processing: More Jobs, Secure Supply Chains



Imported feedstock will be the main source of NdPr supply expansion in China.

Creating environmental stewardship issue from exporting raw materials for processing without transparency of waste stream management.

Export of China RE oxide separation technology is illegal, this could extend to exporting toll processed material.

Since December 2020, Beijing's export control policy applies to regulate the export of sensitive materials and technologies.

NdPr procurement will be central to China's 2025 EV and renewable objectives.

Supply diversification critical to provide supply security that will meet sustainability objectives.



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