

ASX: ARU

15 FEBRUARY 2024

# Arafura Rare Earths

## Bell Potter Unearthed 2024



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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 Rare Earths 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 Rare Earths 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 (in relation to capital cost of A\$1,590 million) is extracted from the Company’s ASX announcement dated 11 November 2022 (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 November 2022. 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, other than as set out in this presentation, 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 November 2022 (including any assumptions referred to in the Company’s ASX announcement dated 11 November 2022 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.

# Executive Summary



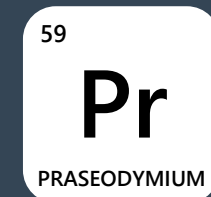
PROJECT UPDATE	MARKET & OFFTAKE	PROJECT FUNDING
<ul style="list-style-type: none"> <li>• <b>Enabling works commenced March 2023 including:</b> <ul style="list-style-type: none"> <li>○ Site access track remediation</li> <li>○ Bulk earthworks for fly-camp</li> <li>○ Installation of 48-person fly-camp</li> </ul> </li>   <li>• <b>Early works construction completed October 2023 including:</b> <ul style="list-style-type: none"> <li>○ Development of initial borefield including additional bores, headworks and pumping systems</li> <li>○ 25km arterial water pipeline between bore field and process plant</li> <li>○ Raw water storage dam</li> <li>○ Temporary site access road intersection with Stuart Highway and improvement of site access road</li> <li>○ Installation and commissioning of stages 1 and 2 of construction camp (200 beds)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Significant opportunity for Arafura to deliver stable NdPr supply into an independent, traceable and ESG-focused magnet supply chain for end customers</b> <ul style="list-style-type: none"> <li>○ Achieving supply-demand balance over the next 10 years will require ~88% of global supply today – more than 12 Nolans projects</li> </ul> </li>   <li>• <b>Hyundai Motor Company / Kia and Siemens Gamesa Renewable Energy sees 53% of Binding Offtake Target met</b> <ul style="list-style-type: none"> <li>○ Targeting 85% of nameplate production committed under binding offtake agreements</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Continued advancement of debt facility terms sheet and engagement with lenders to seek to ensure a robust funding solution for Nolans</b></li>   <li>• <b>Targeting up to US\$775m of senior debt, excluding cost overrun facility</b></li>   <li>• Arafura raising approximately A\$25m via a fully underwritten placement in December 2024 to fund a mix of project development and corporate costs.</li>   <li>• Closed a Share Purchase Plan in January 2023 raising a further A\$6.5m.</li> </ul>

# Project Update

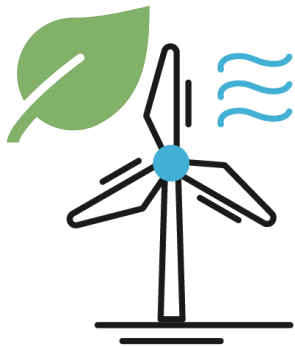
# The Nolans Project

Australian based, NdPr focused and aligned with the global energy transition

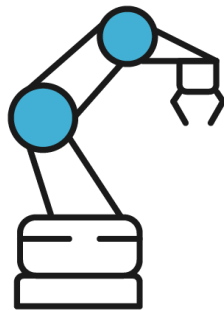
While the Nolans Project contains all the rare earth elements, it is particularly enriched in the 'magnet feed' rare earths neodymium and praseodymium (NdPr)



The dominant application for NdPr oxide is NdFeB magnets used in a range of specialty applications and key to production of electric vehicles, offshore wind turbines and other broader energy transition technologies.



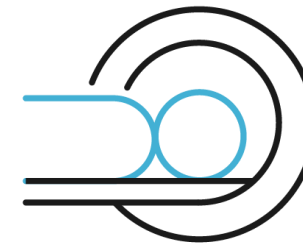
WIND  
TURBINES



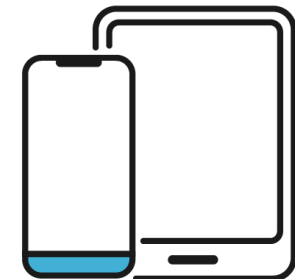
ROBOTS



ELECTRIC  
VEHICLES



MRI  
MACHINES



PHONES &  
TABLETS

# Nolans - Fully Integrated Ore to Oxide Processing

## TECHNICAL LANDMARKS

Large high-grade resource underpinning 4,440tpa NdPr oxide production and minimum 38-year life of mine.

Extensive ore to oxide flow sheet piloting.

Single-site processing includes waste and tailings management. Alignment with emerging ESG focus.

## REGULATORY & APPROVALS

All Northern Territory Government approvals secured.

Mineral License and Mining Authorisation granted.

Native Title Agreement in place.

## INFRASTRUCTURE & ACCESS

Located 135km north of Alice Springs.

Personnel access to site via major airport at Alice Springs and sealed highway.

Transport infrastructure including Stuart Highway 10km east, major rail access in Alice Springs and deepwater port in Darwin.

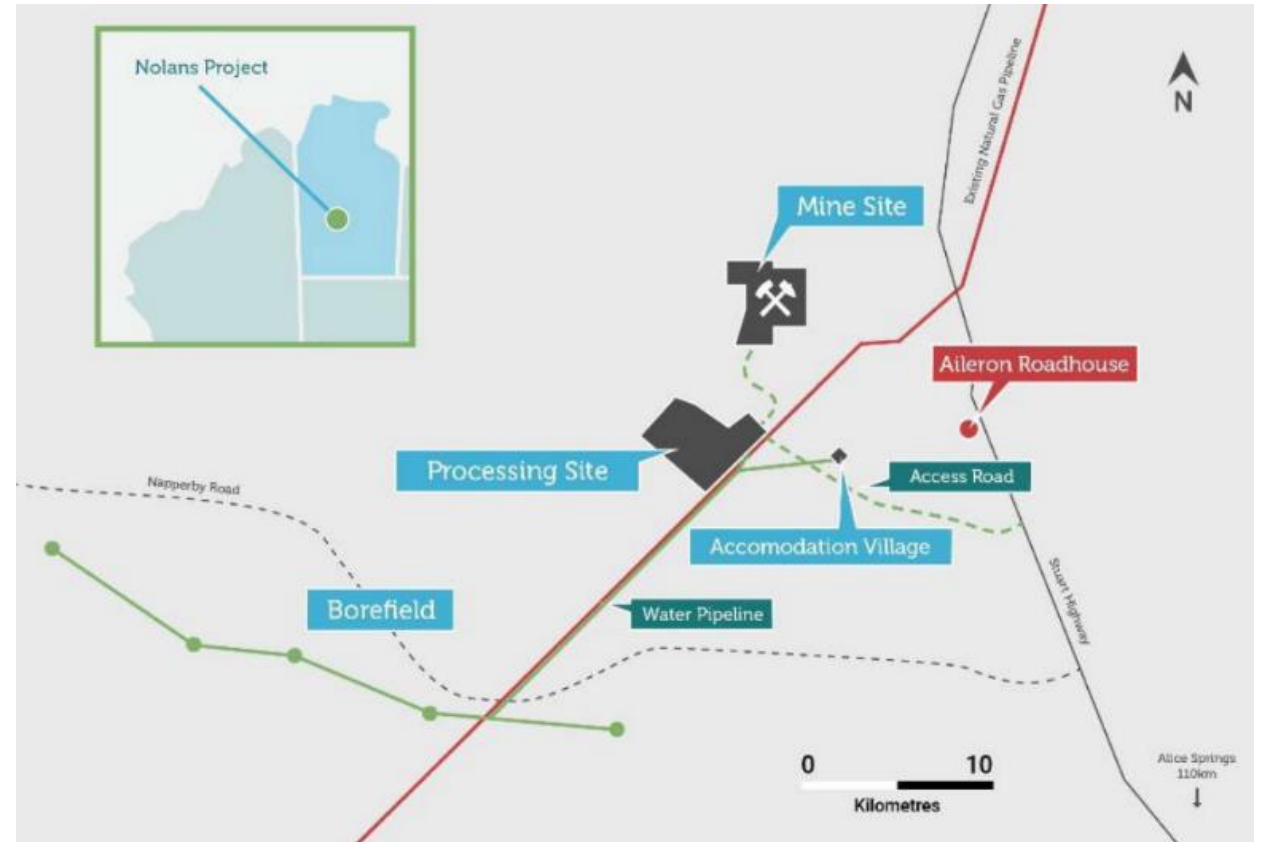
Amadeus natural gas pipeline adjacent to site and water license for supply from borefield 25km south west of site.

## STRATEGIC SIGNIFICANCE

Ore-to-oxide unique outside China.

Strong Australian Government support due to close alignment with Federal critical minerals policy.

International export credit agency lending linked to offtake from Nolans to support diversified magnet supply chain.



**As Arafura approaches the development phase (subject to funding), the Company will continue to seek operational/construction expertise**

# Project Status

## ENABLING WORKS CONSTRUCTION

- Construction camp 200 rooms commissioned and handed over.
- Completion of village area earthworks ready for, construction camp and permanent village.
- Upgrade of site access, Stuart Highway intersection and gas pipeline crossing.



## INFRASTRUCTURE

- Raw water dam and distribution systems commissioned.
- Completion and commissioning of 25km water pipeline and borefield headworks
- Monitoring bores established.
- Construction of process plant laydown hardstands and concrete batch plant bulk earthworks.



## OPERATIONAL READINESS

- Operational readiness progressed in Q4 CY2023, gap analysis and CY2024 plan underway.
- Site activities and engineering effort now reduced but well positioned to ramp up when funding is secured.
- Gas supply agreement signed with the Mereenie joint venture partners. 3-year term with 2-year option and CPs associated with the Nolans development.



## Leadership Transition

- Appointment of Darryl Cuzzubbo as Managing Director and CEO in February.
- Previous roles include Chief Manufacturing and Supply Officer as well as Group Executive and President of Auspac Asia at Orica Pty Ltd and 24 years at BHP including 3 years as President of Olympic Dam.





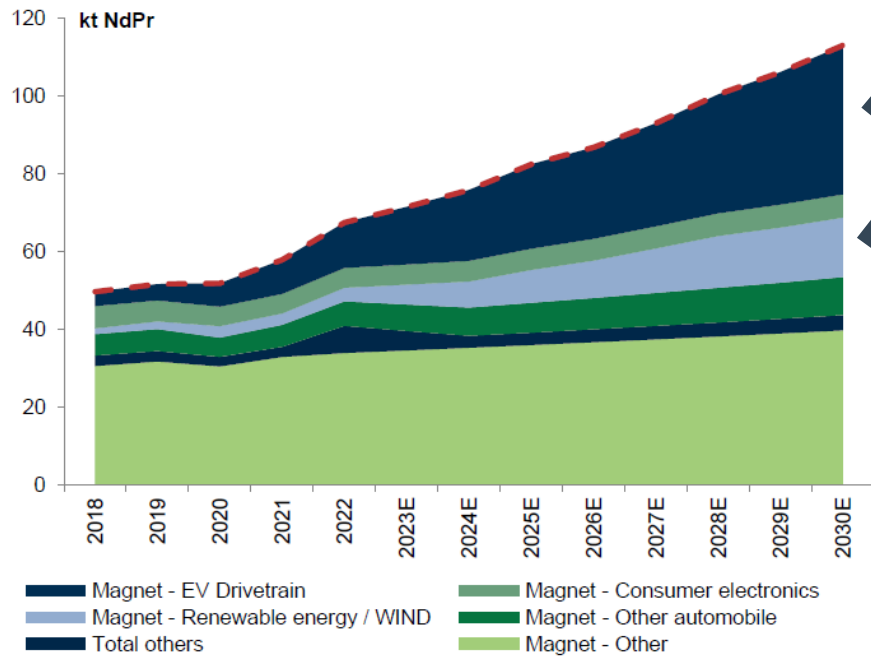


# NdPr Market & Offtake

# Arafura target market led by energy transition

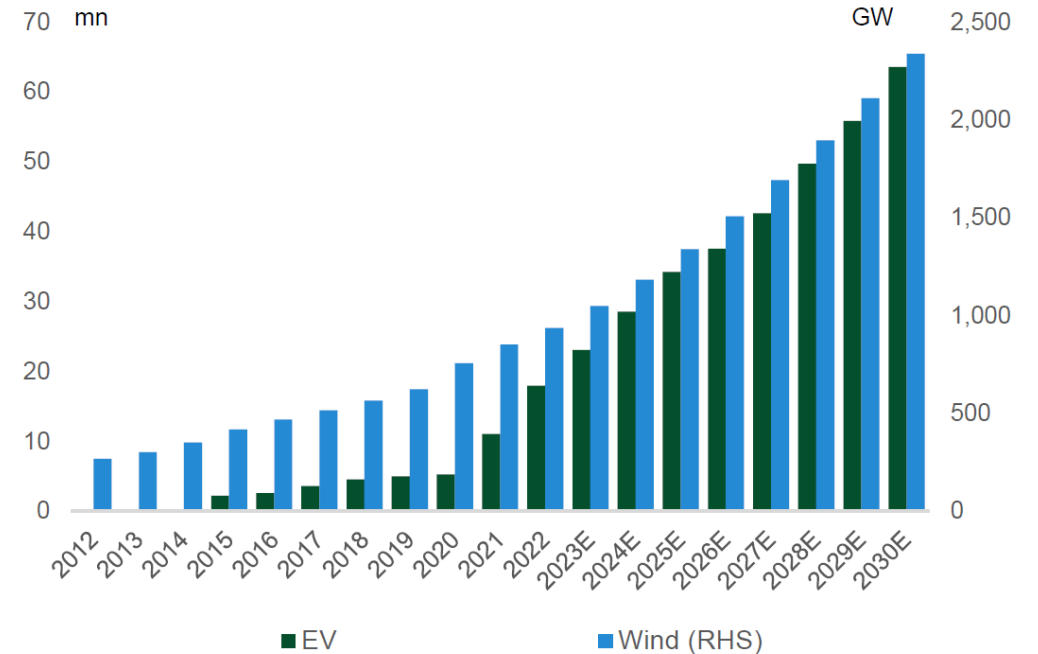
## Electric vehicles and wind turbines to nearly double NdPr demand by 2030

NdPr demand by source (kt NdPr)



## GS Global 'bull case' demand forecasts for electric vehicles and wind turbines

EV forecasts in million vehicles, wind forecast in gigawatt capacity



# Favourable Long Term Supply/Demand Profile

## DEMAND

Automotive sector is forecast to be the primary consumer of NdFeB magnet supply.

2032 forecast assumes ~ 51 million EVs sold<sup>(1)</sup>.

Achieving supply-demand balance over the next 10 years would require a compound annual growth rate (CAGR) in NdPr supply of ~6.9%.

## SUPPLY

China has shown a willingness to introduce incremental supply but regulatory and policy controls are expected to constrain China's ability to expand at pace and open new mines and processing capacity.

Lower NdPr pricing over the last 12 months has reduced the pipeline of non - China ore to oxide NdPr developments.

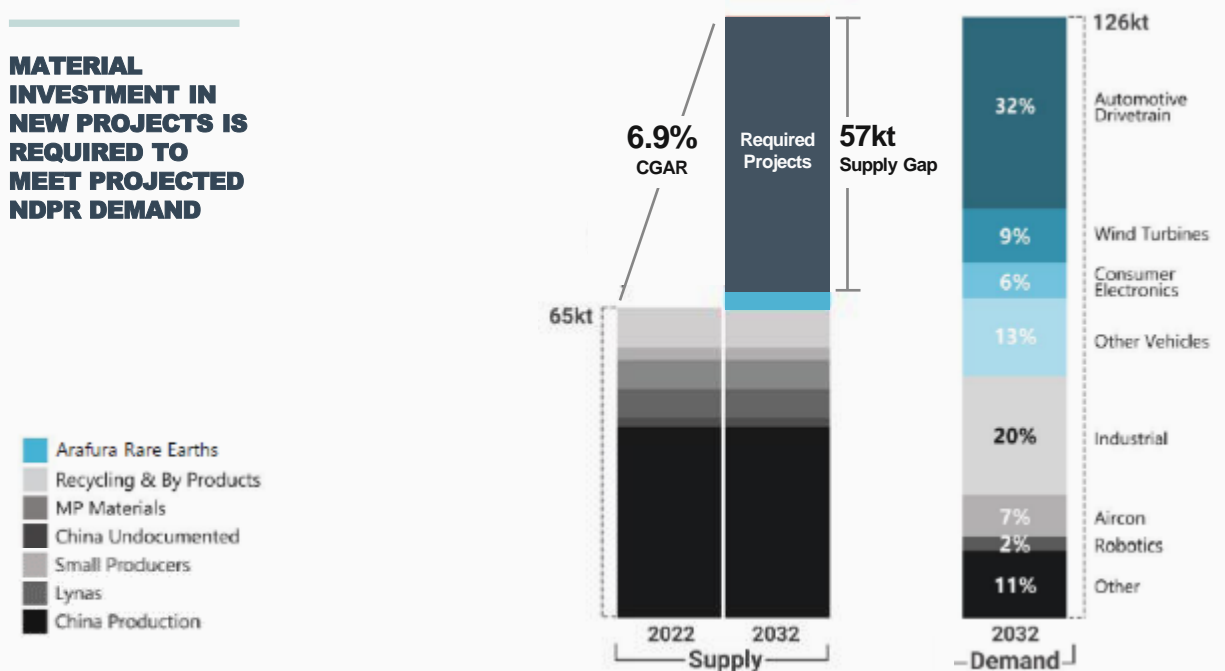
Forecast supply gap represents ~ 88% of global supply today – more than 12 Nolans projects.

Emerging supply gap has additional significance for companies not aligned with the China EV and energy transition strategy.

## NdPr Supply & Demand

Based on end-use demand from magnets

**MATERIAL INVESTMENT IN NEW PROJECTS IS REQUIRED TO MEET PROJECTED NDPR DEMAND**



**Sources:** Arafura internal Supply Demand Forecast referencing Wood Mackenzie – Rare Earth Market Study July 2022; Wood Mackenzie Rare Earth Markets 2022 Outlook to 2050 (September 2022); General Administration of Customs of China via Baiinfo, January 2022; Roskill 2021. Supply is primary supply and excludes secondary sources of NdPr supply from waste magnet production.  
**Notes:** (1) Growth to 2032 calculated off a base of 10.5 million EVs sold in 2022 and forecast production based on implied EVs produced given NdFeB alloy demand from automotive drivetrains and assuming 2kg of NdFeB alloy is used per EV sold. EVs include battery electric vehicles (BEVs), hybrid electric vehicles (HEV) and plug-in hybrid electric vehicles (PHEV).

# Offtake



## Arafura is targeting 85% of planned production<sup>1</sup> as binding offtake (Binding Offtake Target).

Offtake strategy aligned with NdFeB users seeking a diversified supply chain.

Binding offtake agreements in place with Hyundai and Kia and Siemens Gamesa for up to 2,020tpa NdPr oxide (or metal equivalent).

Four other companies in “contract negotiations” representing 42% of Binding Offtake Target, including MOU for 375tpa with GE Vernova<sup>4</sup>.

Offtake discussion has now switched to focus on placing product with groups that bring strategic value including equity investment.

OFFTAKE DISCUSSION GROUP	LOCATION	NDPR OXIDE (TPA) <sup>2</sup>	% OF BINDING OFFTAKE TARGET
<b>SECURED OFFTAKE (BINDING AGREEMENT)</b>			
Hyundai & Kia	Korea	1,500	40%
Siemens Gamesa RE	Germany	520	14%
<b>OFFTAKE UNDER DISCUSSION<sup>3</sup></b>			
Contract negotiations	Japan & Europe	1,600	42%
Advanced offtake discussions	Europe & US	2,890	77%
<b>TOTAL</b>		<b>6,510</b>	<b>172%</b>

## Targeting NdPr users not aligned with Made in China 2025 Strategy

1. Planned Production refers to the average annual production from Nolans of 4,440tpa (Refer ASX Announcement dated 11 May 2021).  
 2. Product may be supplied as NdPr Oxide or Metal equivalent.  
 3. The Company, at this stage, has no certainty as to the timing and likelihood of successfully concluding binding agreements being entered into.  
 4. ASX announcement will be released once the binding offtake agreement has been executed.

# Project Funding

# Indicative Debt Funding



NAIF and EFA letters of support A\$350m of debt subject to further DD and credit approval.

Export Development Canada Letter of Interest for US\$300m.

Société Générale and KfW appointed MLAs.

Euler Hermes letter of support for up to US\$600m untied loan guarantee subject to offtake with German companies and credit approval.

Korea EXIMbank (KEXIM) letter of interest for up to US\$150 million in two tranches- an amount equal to or more than US\$75 million as a direct loan, and an additional amount equal to or less than US\$75 million as a debt guarantee.

A number of the ECA and Government agency lenders are advanced in the preparation of their credit papers and are working towards formal approval consideration of the financing facilities. Any formal approvals considered material will be communicated to the market when they are received by Arafura.

AGENCY	AMOUNT	DESCRIPTION	STATUS	
<b>DEBT FACILITIES</b>				
Export Finance Australia (EFA)	A\$200m	US\$225m <sup>1</sup>	Debt financing	Letter of support received
Northern Australia Infrastructure Facility (NAIF)	A\$150m		Debt financing	Letter of support received & completion of strategic assessment
Export Development Canada (EDC)	US\$300m	Debt financing	Letter of Interest received	
KEXIM	Up to US\$75m	Debt financing	Letter of Interest received	
Commercial bank tranche	Up to US\$175m <sup>2</sup>	Debt financing	In discussion	
<b>TOTAL</b>		<b>UP TO US\$775m</b>		
<b>UNTIED LOAN GUARANTEES</b>				
German ECA - Euler Hermes Aktiengesellschaft	Up to US\$100m <sup>3</sup>	Untied loan guarantee	In-principle support received	
KEXIM	Up to US\$75m	Untied loan guarantee	Letter of Interest received	
<b>TOTAL</b>		<b>UP TO US\$175m</b>		



1. A\$200m (EFA) and A\$150m (NAIF) combined and converted for comparison purposes only at AUD/USD 0.6428

2. Commercial bank tranche will be supported by untied loan guarantee from Euler Hermes and KEXIM.

3. Arafura is targeting US\$100m of Euler Hermes loan guarantee, subject to debt sizing constraints and securing sufficient German based NdPr offtake. The Euler Hermes in-principle letter of support provides up to US\$600 million of loan guarantee.

# Investment Highlights



## EARLY CONSTRUCTION WORKS COMPLETE

Early construction activities completed October 2023 including Raw water storage dam (commissioned), 25km arterial water pipeline (commissioned) between bore field and process plant, site access intersection with Stuart Highway and installation and commissioning of stages 1 and 2 of construction camp



## TARGETING SENIOR DEBT OF UP TO US\$775m

Lender group including government policy debt from EFA, NAIF and EDC remain supportive. Final commercial debt structure and credit approvals conditional on appropriate ECA cover. Targeting contractual close in March 2024.



## PROGRESSING OFFTAKE & STRATEGIC EQUITY

Arafura has a Heads of Agreement with Hyundai which contemplates strategic equity with due diligence close to completion. Arafura is in discussion with other strategic partners around offtake and investment.



## STRONG POTENTIAL RETURNS THROUGH THE CYCLE

Ore to oxide operating model ensures Arafura will receive 100% of the benchmark NdPr Oxide price<sup>2</sup> unlike producers of mixed rare earth carbonate (MREC) or concentrate. Competitive operating costs of US\$34.64/kg drive a 74% EBITDA margin<sup>1</sup>. At target production rate of 4,440tpa NdPr oxide, Nolan's will deliver EBITDA of A\$573m p.a.

1. At US\$130/kg NdPr oxide selling price. Refer to ASX Announcement dated 11 November 2022 *Nolans Project Update*  
2. Subject to other market-based discounts and adjustments negotiated in long term offtake agreements that are customary for agreements of this nature

ASX: ARU

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(Nolans Project enquiries only)





# Strategic Importance of Producing NdPr Oxide



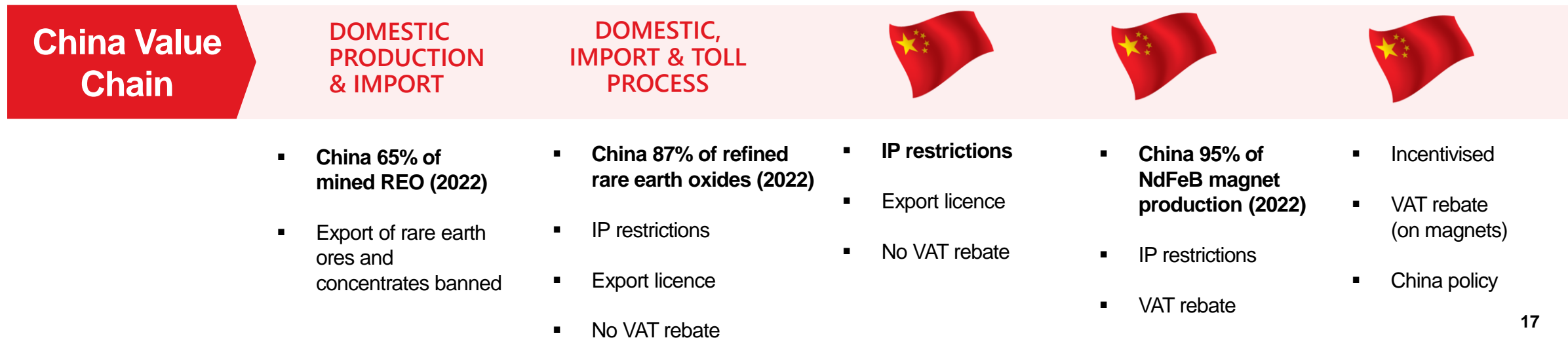
1. Mine  
2. RE Extraction

3. RE Separation  
4. NdPr Oxide

5. NdPr Metal  
(conversion)

6. NdFeB Alloy/  
Magnet Maker

7. End User/ Manufacturer



# Capital Cost Trending

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**Capital cost trending indicates that the capital cost to first production at Nolans is likely to be approximately A\$1,680 million.**

**Currently, this represents an approximate 5.7% increase from the A\$1,590 million estimate provided in the November 2022 Project Update<sup>1</sup>.**

**The Capital Cost trend estimate is substantially in line with expectations.**

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## CAPITAL COST TRENDING INCLUDES

- Trending adjustments to cost estimates provided in the November 2022 Project Update<sup>1</sup>.
- Purchase costs for the permanent accommodation village, which was assumed to be under a build, own operate arrangement in the November 2022 Project Update<sup>1</sup>.
- Contingency (unchanged).
- Incurred and forecast sunk costs relating to procurement, engineering and construction from March 2023 to February 2024.

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## CAPITAL COST TRENDING EXCLUDES

- Actual and forecast expenditure that has not reduced estimated completion costs, from March 2023 through to targeted commencement of main construction.
- Pre-production costs including mining, labour, spares and inventory.
- Project overheads including levies, insurances and other payments.
- Allowances for escalation.
- Working capital and financing costs.
- Corporate overheads.

(1) Refer to ASX Announcement dated 11 November 2022.

# Funding Structure

Offtake drives participation of untied ECA funding and creates debt liquidity.

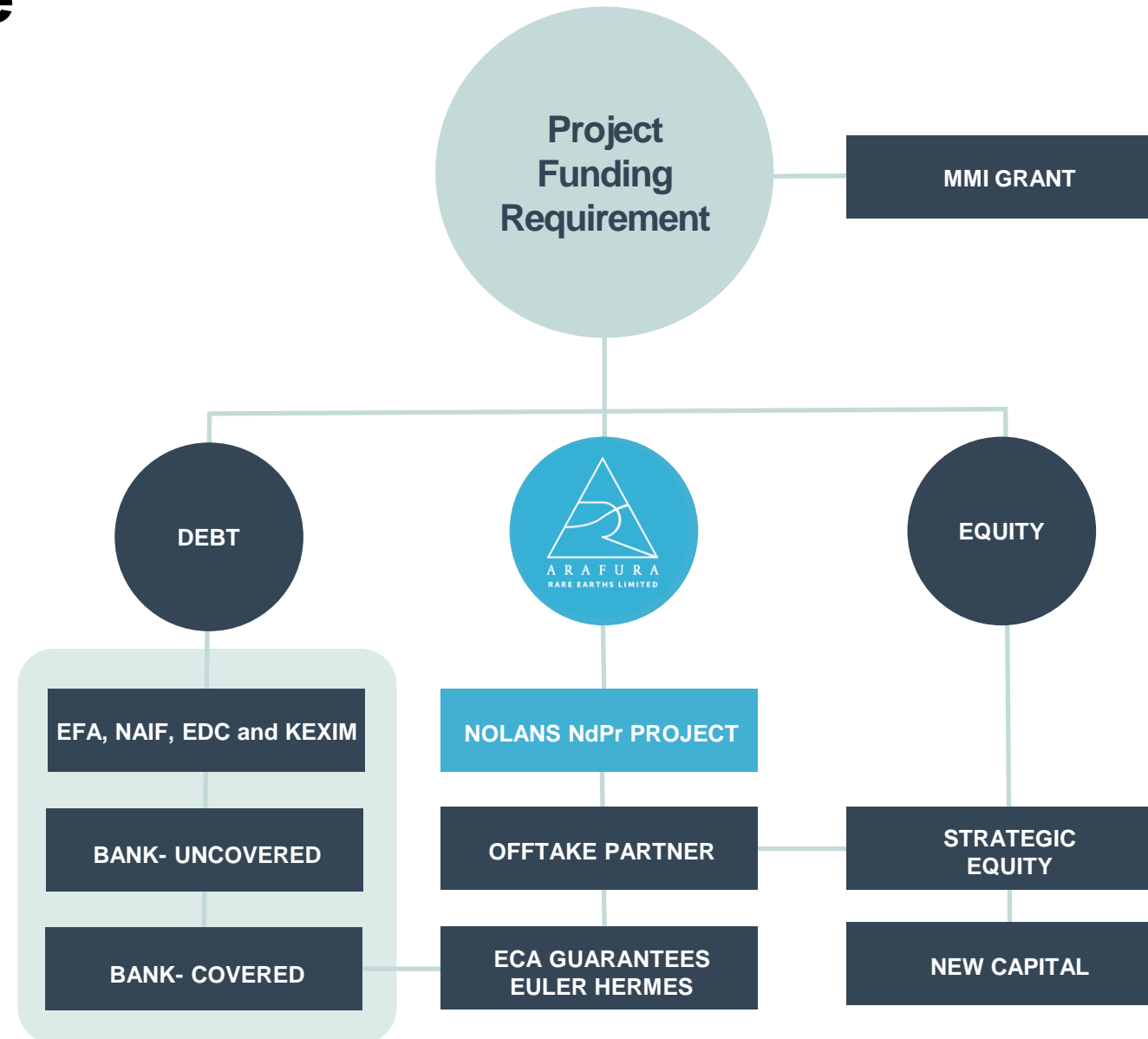
MLA financing will have a covered (supported by ECA guarantee) and uncovered portion.

Potential strategic investment being negotiated in conjunction with final offtake through a HoA with Hyundai.

Strategic equity being explored with potential offtake partners.

A\$30m MMI Grant for construction of separation plant reduces equity requirement.

The Company has been working closely with the Project's lenders and their advisers to ensure that the funding solutions for Nolans is robust, with increased focus on contingency and a cost overrun facility



# Sustainability

# Sustainability 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.**

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## **GHG Emissions and Water Management**

Commitment to Net Zero

GHG emissions reduction pathway developed

Solar power investigation underway and SODAR installed on site for wind power assessment

Water reduction strategy underway

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## **Traceability: Blockchain Technology**

Aligned with customers' ESG expectations

Will allow tracing of Nolans sustainably produced products through entire supply chain to customers

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## **Annual Update of Sustainability Report**

Signatory of the UN Global Compact

Comprehensive report that satisfies requirements of global ESG ratings agencies and reporting standards

TCFD reporting under development

Annual sustainability reporting

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## **Innovation and Technology**

Downstream value add opportunities

Ongoing R&D exploring low carbon metallisation process

Options for hydrogen or other energy storage solutions

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## **Pending IRMA Member**

Completed the IRMA Ready assessment and awaiting feedback