



# ASX ANNOUNCEMENT

## ASIAN RARE EARTHS CONFERENCE PRESENTATION

22 April 2024

**Arafura Rare Earths Limited (ASX: ARU)** (“Arafura” or the “Company”) is pleased to attach a copy of a presentation delivered by Managing Director and CEO, Darryl Cuzzubbo, at the Asian Rare Earths Conference in Singapore.

**-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.”*

ASX: ARU

# Arafura Rare Earths

Building a diversified value chain and  
enabling the energy transition

**Darryl Cuzzubbo**

Managing Director & CEO

Monday 22 April 2024



ersonal use only



# Disclaimer



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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.

# Agenda

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- 1 Corporate summary
- 2 Construction ready
- 3 Market outlook: structural deficit about to bite
- 4 Market drivers: NdPr pricing elastic
- 5 Supply chain risk
- 6 Virtue of Nolans: large, scalable, low-cost resource
- 7 Securing binding offtakes
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# Corporate summary

## Why the Nolans Project?

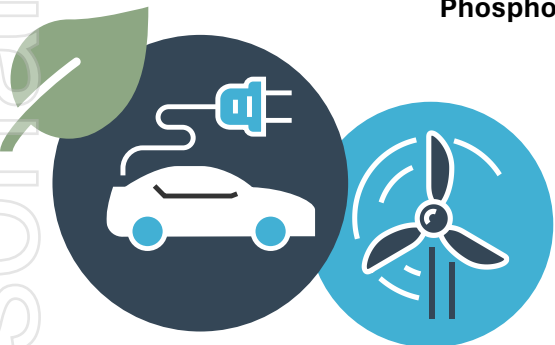
- ✓ fully-permitted<sup>1</sup>
- ✓ scalable
- ✓ construction-ready<sup>3</sup>
- ✓ single-site ore-to-oxide project
- ✓ tier 1 location

**NdPr is essential for the energy transition**

**Supply security threat**  
with ~90% of NdPr supplied by China

**Demand expected to nearly double by 2032<sup>2</sup>** – development pipeline challenging

<b>Mine life</b>	+38 years
<b>NdPr Oxide</b>	4,440 tpa
<b>SEG/HRE Oxide</b>	474 tpa
<b>Phosphoric Acid</b>	144,393 tpa (54% P <sub>2</sub> O <sub>5</sub> MGA)



Explorer



Developer



Project Execution



Market Cap  
**A\$601m<sup>4</sup>**

Share price  
**A\$0.23<sup>4</sup>**

Shares on issue  
**2,310m**

Cash  
**A\$67m<sup>5</sup>**

<sup>1</sup> All Northern Territory Government approvals granted / Awaiting approval of relevant management plans in support of Commonwealth Government approvals already received

<sup>2</sup> Adamas Intelligence, "Rare Earth Magnet Market Outlook to 2040" (Q2 2023)

<sup>3</sup> Commencement of construction is subject to finalisation and financial close of debt financing facilities and receipt of equity funding sufficient to proceed to construction

<sup>4</sup> As at 15 March 2024

<sup>5</sup> Data based on 31 December 2023 Quarterly Report

# Construction ready

## Once financed, we are ready to go



Environmental permits and approvals in place<sup>1</sup>



>\$40m on site works de-risking project schedule



Project well defined with >60% process plant engineering, enabling:

- stable capital forecast
- reduced cash burn rate, sufficient liquidity to CY24 Q4



Granted mineral lease / license



Experienced Board and leadership team supported by KBR and Hatch



Access to existing infrastructure



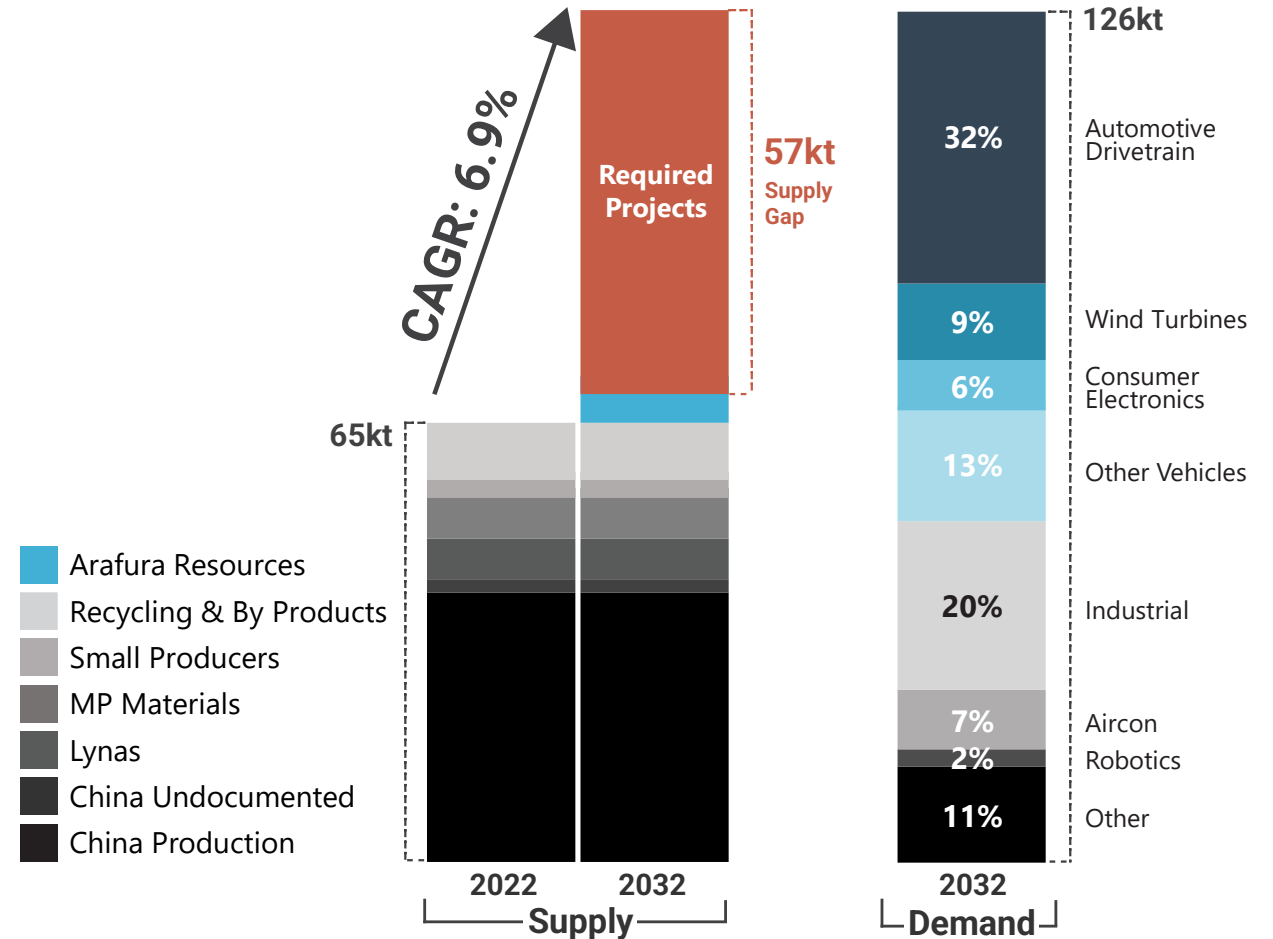
Construction to commence when funding complete – targeting CY24 2H



# Market outlook: structural deficit about to bite

Forecast supply gap represents ~88% of global supply today

- The equivalent of > 12 Nolans projects required to close gap
- Average ~18 years required to develop mines from discovery to first commercial production<sup>1</sup>
- Development pipeline is challenging



Source: Arafura internal Supply Demand forecast referencing Wood Mackenzie – Rare Earths Market Study, July 2022; General Administration of Customs of China via Baiinfo January 2023, Roskill 2021  
 Supply is primary supply, including monazite and excludes secondary source of NdPr supply from waste magnet production  
 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 (BEV), Hybrid Electric Vehicles (HEV) and Plug-in Hybrid Electric Vehicles (PHEV).

<sup>1</sup> Average global mine lead times, S&P Global Market Intelligence report 21 March 2024: 'Average lead time almost 18 years for mines started in 2020 – 23'

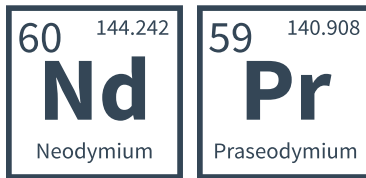
# Market drivers: NdPr pricing elastic

## Remember the semi-conductor chip crisis?<sup>1</sup>

- **Acute competition** to secure chips
- Created **significant risk** to automotive global supply chain

Value of NdPr in one EV with a sale price of ~US\$53,000 is  
**~US\$50**

Lack of supply puts the entire EV global supply chain at risk

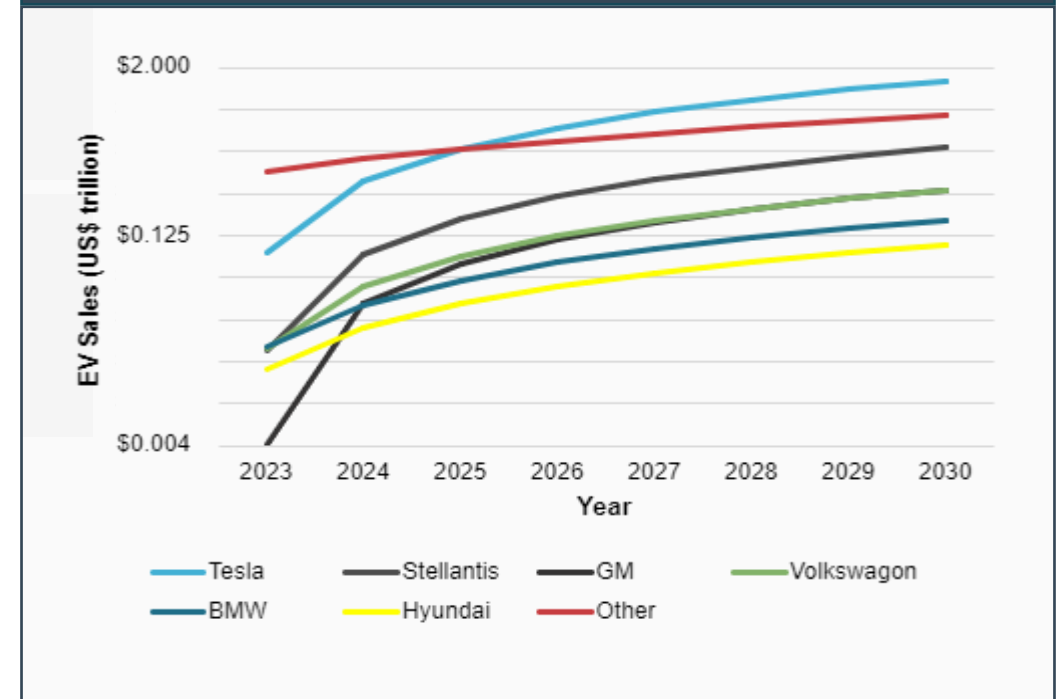


- NdPr comprises less than 0.1% cost in an EV
- Very low substitution risk
- Critical in motor efficiency
- Strongest permanent magnet available today – up to 10x stronger than ferrite magnets<sup>2</sup>

## Big names with big promises are dependent on NdPr

### Selected OEM 2030 Sales Targets<sup>3</sup>

based on 2023 average unit price of US\$53,376



<sup>1</sup> Commodities 2022: Vehicle makers face challenging year amid persistent chip shortage | S&P Global Commodity Insights (spglobal.com)

<sup>2</sup> Source: Shin-Etsu Rare Earth Magnets <https://www.shinetsu-rare-earth-magnet.jp/e/design/rem.html>

<sup>3</sup> Assumes linear interpolation between each manufacturers' 2023 actual sales and 2030 stated sales target; manufacturers' sales targets are subject to change



# Supply chain risk

## Remember the chips? <sup>1</sup>

Supply security creates significant risk

## Japan has ex-China strategy

Japan has secured significant proportion of ex-China NdPr for stable feedstock <sup>2</sup>

## ROW dependant on China

Today the **US, Korea** and **European** EV and wind turbine manufacturers depend on China supply

## Who is next with ex-China supply?

**Arafura** provides unique opportunity for OEMs to achieve long-term NdPr supply security

## Is a truly independent ex-China supply chain possible?

Yes. **Nolans** is the most advanced ore to oxide project globally. Majority of projects in development pipeline likely to produce concentrate/carbonate <sup>4</sup>

**~90%**  
Global NdPr is  
processed in China<sup>3</sup>

**~10%**  
Rest of World  
Majority directed to Japan

*Illustrative purposes only*

<sup>1</sup> Commodities 2022: Vehicle makers face challenging year amid persistent chip shortage | S&P Global Commodity Insights (spglobal.com)

<sup>2</sup> Refer Lynas ASX announcement 7 March 2023 "JARE extends support for Lynas growth plan" and Sojitz News Release 7 March 2023 "Securing Supply of Heavy Rare Earths to Japan with Additional Investment to Lynas". Arafura estimates ~75% of LYC supply is allocated to Japanese market

<sup>3</sup> Adamas Intelligence, "Rare Earth Magnet Market Outlook to 2040" (Q2 2023)

<sup>4</sup> Average global mine lead times, S&P Global Market Intelligence report 21 March 2024: "Average lead time almost 18 years for mines started in 2020-23". Development stage and product type assessment based on Company filings.

# Virtue of Nolans: large, scalable, low-cost resource

## Nolans: a differentiated proposition

1

Large, high-grade resource

2

Low unit cost – phosphoric acid credits

3

Located in a Tier 1 mining jurisdiction

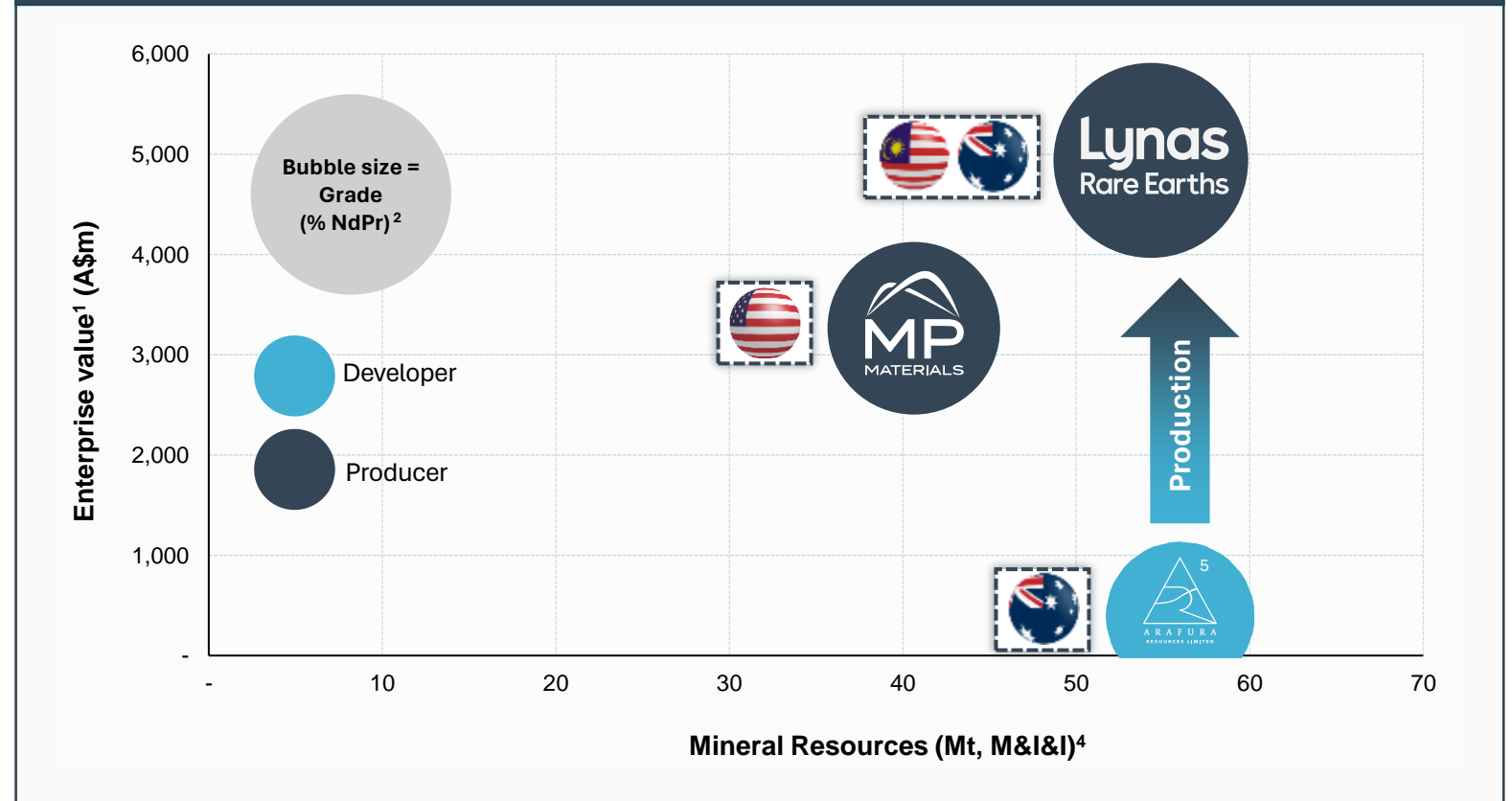
4

Single site ore to oxide



Expansion scoping study underway

## Benchmarking vs Lynas and MP Materials<sup>3</sup>



<sup>1</sup> Enterprise value as at 22 March 2024. Enterprise value calculated as market capitalisation plus debt minus cash. Debt and cash are as at 31 December 2023. There is no guarantee that Arafura’s enterprise value following production will be similar to that of Lynas or MP

<sup>2</sup> Based on % TREO multiplied by % NdPr enrichment

<sup>3</sup> Please refer to Appendix 1 for further information; data sources are listed in Appendix 1

<sup>4</sup> Total mineral resources include varying compositions of measured, indicated and inferred; refer to Appendix 1 for a full breakdown of these resource estimates

<sup>5</sup> Lynas and MP Materials are already in production and so are not identical in nature to Arafura; there is no guarantee that Arafura will reach its desired production levels at Nolans in full or at all; production at Nolans is subject to funding and the successful completion of construction

# Binding offtake target<sup>4</sup>

## Focus on strategic value and equity investment

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

Offtake discussions now focused on parties bringing strategic value including equity investment

Offtake Discussion Group	Location	NdPr Oxide (Tpa) <sup>1</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>2</sup></b>			
Contract negotiations	Japan & Europe	1,600	42%
Advanced offtake discussions <sup>3</sup>	Europe & US	2,915	77%
<b>TOTAL</b>		<b>6,535</b>	<b>173%</b>

<sup>1</sup> Product may be supplied as NdPr Oxide or Metal equivalent

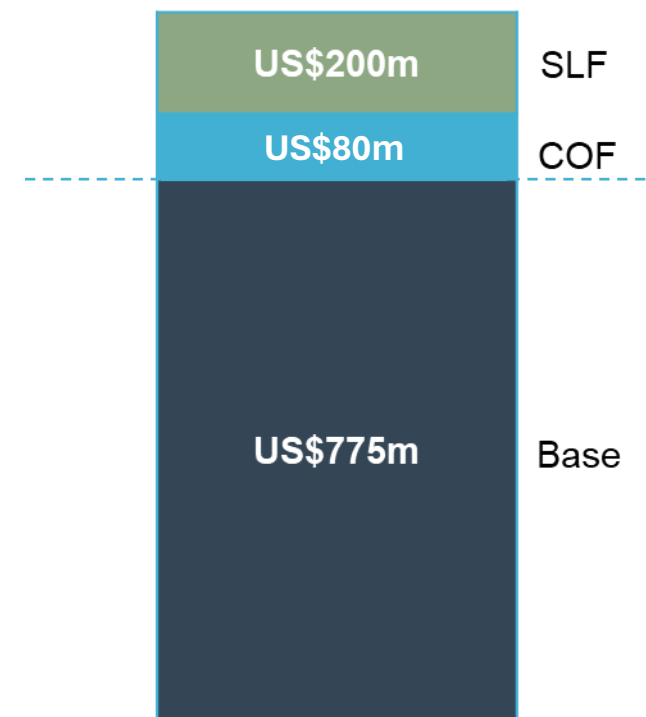
<sup>2</sup> The Company, at this stage, has no certainty as to the timing and likelihood of successfully concluding binding agreements being entered into

<sup>3</sup> ASX announcement will be released once the binding offtake agreement has been executed

<sup>4</sup> Targeting 85% of planned production as binding offtake. Planned Production refers to the average annual production from Nolans, being 4,440tpa (Refer to ASX Announcement dated 11 May 2021)

# Project funding: indicative debt structure & status

Facility	Amount (US\$m)	EFA & NAIF (US\$m)	Status
<b>Project Finance Facilities</b>			
EFA	125	125	Conditionally Approved <sup>3</sup>
NAIF	100	100	Conditionally Approved (A\$150m) <sup>3</sup>
EDC	300	-	LoI received 20 June 2023 <sup>4</sup>
KEXIM	75	-	LoI received 4 Dec 2023 <sup>5</sup>
ECA Covered Tranche	175 <sup>1</sup>	45	EFA conditional approval <sup>3</sup> , RFP responses
<b>Total</b>	<b>775</b>		
Cost Overrun Facility <sup>2</sup>	80	63	Conditional approvals: NAIF (A\$50m), EFA (US\$30m) <sup>3</sup>
Subordinated SLF	200	200	EFA conditional approval <sup>3</sup>
<b>Total Debt Facilities</b>	<b>1,055</b>	<b>533</b>	excluding contingent instrument facility



#### Cost Overrun Facility (COF)

- US\$80m funded by senior debt<sup>2</sup>

#### Standby Liquidity Facility (SLF)

- EFA US\$200m, 15-year, subordinated debt facility

#### Purpose:

Fund project and ramp-up costs, excluding senior debt financing costs, prior to project completion

<sup>1</sup> Targeting commercial bank lending under ECA covered tranches supported by untied loan guarantees from Euler Hermes and KEXIM. Refer to ASX announcements dated 29 March 2023 and 20 June 2023

<sup>2</sup> Total Cost Overrun funding of US\$160m, 50% funded by senior debt with remaining 50% to be funded by equity

<sup>3</sup> Refer to ASX announcement dated 14 March 2024

<sup>4</sup> Refer to ASX announcement dated 20 June 2023

<sup>5</sup> Refer to ASX announcement dated 4 December 2023

# Equity engagement

## Potential build-up of equity capital



### 1 Customer Cornerstone & Other Strategic

- Substantial holders
- Hyundai
- Other customer cornerstones

### 2 Industry Cornerstone

- Government seeded funds with supply chain diversification mandate
- Resources PE, corporates, large institutional and family offices

### 3 Institutional Investors

- Institutional investors with an energy transition mandate

### 4 Existing Shareholders

- Balance to be raised through offer to new and existing shareholders

**Customer/strategic commitment will drive participation of financial groups**

*Joint Lead Managers appointed*



# Refreshed leadership team and Board



**Mark Southey**  
Non-Executive Chairman



**Darryl Cuzzubbo**  
Managing Director & Chief Executive Officer



**Chris Tonkin**  
Non-Executive Director



**Cathy Moises**  
Non-Executive Director



**Michael Spreadborough<sup>1</sup>**  
Non-Executive Director



**Roger Higgins<sup>1</sup>**  
Non-Executive Director



**Peter Sherrington**  
Chief Financial Officer



**Stuart Macnaughton<sup>2</sup>**  
Chief Operating Officer



**Robert Gerard**  
Project Director



**Cameron Sobejko**  
Manager Business Development



**Tanya Perry**  
Head of Sustainability & Environment



**Shaan Beccarelli**  
Head of Corporate Affairs & Investor Relations

<sup>1</sup> Effective 8 April 2024 – refer to ASX announcement dated 3 April 2024

<sup>2</sup> Effective 8 April 2024

# Differentiating by ESG

Arafura's customers will secure materials from a leader in ESG

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We have a defined pathway to net zero



We recognise the interdependencies of ESG in our business



We are building capability to deliver best-practice ESG



We are aligning our governance to international standards



We are poised to make a real difference in the communities where we operate and live

# Nolans: ready to go<sup>1</sup>



Definitive Feasibility Study



Native Title Agreement



Mineral Leases granted



Federal government approvals



Northern Territory government approvals



EFA / NAIF approvals

Extensive due diligence completed



Early works completed



54% of offtake target binding<sup>2</sup>



Remaining debt well progressed



Remaining offtake well progressed



Equity initiated

## Shovel Ready



<sup>1</sup> Commencement of construction is subject to finalisation and financial close of debt financing facilities and receipt of equity funding sufficient to proceed to construction

<sup>2</sup> Targeting 85% of planned production as binding offtake. Planned Production refers to the average annual production from Nolans, being 4,440tpa (Refer to ASX Announcement dated 11 May 2021)



ASX: ARU

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(Nolans Project enquiries only)



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# Appendices

# Appendix 1: pure-play rare earth peer benchmarking



Company	Project	Location	Stage	Product	EV (A\$m) <sup>1</sup>	Mineral Resources (Mt)	TREO grade (%)	NdPr enrichment (%)	NdPr grade(%) <sup>2</sup>	Contained NdPr (Mt)	NdPr Production	Source(s)
Arafura	Nolans	Australia	Construction	Oxide	537	<b>Measured:</b> 9.0 <b>Indicated:</b> 30.0 <b>Inferred:</b> 21.0 <b>Total:</b> 56.0	<b>Measured:</b> 3.2% <b>Indicated:</b> 2.7% <b>Inferred:</b> 2.3% <b>Total:</b> 2.6%	<b>Measured:</b> 26.1% <b>Indicated:</b> 26.4% <b>Inferred:</b> 26.5% <b>Total:</b> 26.4%	<b>Measured:</b> 0.84% <b>Indicated:</b> 0.71% <b>Inferred:</b> 0.61% <b>Total:</b> 0.69%	0.38	4.44	<b>ASX announcement:</b> “Nolans Project update” on 11 November 2022
Lynas	Mount Weld	Australia	Producing	Oxide	4,959	<b>Measured:</b> 17.1 <b>Indicated:</b> 11.4 <b>Inferred:</b> 25.9 <b>Total:</b> 54.3	<b>Measured:</b> 7.6% <b>Indicated:</b> 5.1% <b>Inferred:</b> 3.6% <b>Total:</b> 5.2%	<b>Total:</b> 22.8% <sup>4</sup>	<b>Total:</b> 1.19%	0.64	12.00	<b>ASX announcement:</b> “Annual Report FY2023” on 12 October 2023 <b>ASX announcement:</b> “Resources and Reserves Increase” on 6 August 2018
MP	Mountain Pass	USA	Producing	Oxide	3,269	<b>Measured</b> <sup>3</sup> : 0.1 <b>Indicated</b> <sup>3</sup> : 31.5 <b>Inferred</b> <sup>3</sup> : 9.1 <b>Total:</b> 40.6	<b>Measured</b> <sup>3</sup> : 9.5% <b>Indicated</b> <sup>3</sup> : 6.2% <b>Inferred</b> <sup>3</sup> : 5.1% <b>Total:</b> 5.9%	<b>Total:</b> 15.7%	<b>Total:</b> 0.93%	0.38	6.00	<b>SEC filing:</b> “FORM 10-K” from 28 February 2022

<sup>1</sup> Enterprise value as at 22 March 2024. Enterprise value calculated as market capitalisation plus debt minus cash. Debt and cash are as at 31 December 2023

<sup>2</sup> Based on % TREO multiplied by % NdPr enrichment

<sup>3</sup> Resources reported exclusive of Reserves. Measured Resource assumed to be equal to Proven Reserves. Indicated Resource assumed to include Probable Reserves

<sup>4</sup> Calculated as contained NdPr reserves (386kt) divided by contained TREO reserves (1,690kt)