### **ASX ANNOUNCEMENT**

#### **NEW WORLD METALS CONFERENCE**

9 December 2020



**Arafura Resources Limited (ASX:ARU) ("Arafura"** or the **"Company"**) is pleased to attach a copy of its presentation to the New World Metals Conference held in Perth. The conference features resource companies operating in minerals associated with technology, battery storage and emission free power transmission such as rare earths. Mr Richard Brescianini, Arafura's General Manager Exploration and Business Development, presented the Nolans project.

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# Nolans NdPr Project

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**New World Metals Conference** 9 December 2020

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#### Mineral Resources and Ore Reserves

The information in this presentation that relates to Mineral Resources was released in an 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 was released in an 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). The 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 represented have not been materially modified from the original market announcement.

#### Production Targets and Forecast Financial Information

The information in this presentation that relates to production targets and financial information included in this presentation is extracted from ASX announcement dated 16 March 2020 (Major Increase in Mine Life for the Nolans Project). Arafura confirms that all material assumptions underpinning the production target and forecast financial information derived from production targets set out in the announcement released on 16 March 2020 (including the cost and pricing assumptions referred to in the Company's 16 March 2020 announcement that were used in the DFS and which are set out in the Company's ASX Announcement 7 February 2019 (Nolans Project Definitive Feasibility Study)), continue to apply and have not materially changed.



## Corporate Snapshot



JP Morgan Nominees Australia Pty Ltd

- ECE Nolans Investment Company
- Talaxis Ltd
- BSBC Custody Nominees (Australia) Ltd
- Citicorp Nominees Pty Ltd
- Other

- Nolans is a giant NdPr-rich rare earths project in Australia
- NdPr is the key input for high performance NdFeB permanent magnets
- NdFeB is a critical input for the manufacture of energy efficient electric motors
- NdFeB central to many clean energy applications including EVs and wind turbines

Capital Structure				
ASX Code	ARU			
ASX Share Price (7 December)	\$0.105			
Shares on Issue	1,168m			
Market Capitalisation	\$122.64m			
12 Month Liquidity	\$52.48m			
Cash*	\$18.50m			
Debt	Nil			
Enterprise Value*	\$104.12m			

\* Data based on 30 September 2020 Quarterly Report



### 12 Month Share Price Performance

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## Outline











# The Market Opportunity



8/12/2020

## **Global Supply Chain**

2025 supply chain.



### Australia's **Critical Minerals** Initiatives





### Global Critical Minerals Initiatives

Global supply chains planning to increase resilience

- Dual sourcing of materials
- Expanding supplier base
- Regionalizing supply chains
- Building stronger, reliable and transparent supply chains
- Widen scope of existing reshoring plans
- Re-structuring of government policies

U.S. Presidential Executive Order declares national rare earth supply chain emergency. U.S. prepares to re-enter Paris Climate Agreement.

Japan earmarks US\$2.2bn to assist companies shift production home. MITI additional funding of US\$423m to diversify sources for rare earths and cobalt

**Europe** multiple

initiatives to remove

materials supply

risks for future

deployment of low

carbon economy

2060 CARBON NEUTRAL TARGET China has new 5year plan with emphasis on

emphasis on renewables, emobility and domestic growth

#### 2050 NET-ZERO EMISSIONS TARGET



Korea looking to re shore production and create downstream processing opportunities in alliance with other governments to create an alternative supply chain





### **Key Diversification** Drivers

- **COVID-19** has fast tracked the  $\checkmark$ requirement to diversify supply risk
- Looming NdPr supply and demand imbalance
- Global priority to rebuild and invest in  $\checkmark$ value-add mineral processing capabilities reducing reliance on China
- Mandates of export credit agencies (ECAs) focused on critical raw materials for e-mobility and renewables
- **Critical** to the functioning of important industries such as e-mobility, renewable energy, defence and consumer electronics



# NdPr Market Opportunity

### DEMAND



- Accelerated demand driven by government policy for renewables and e-mobility
- Automotive sector is forecast to consume nearly 50% of NdFeB supply
- Offshore wind energy sector will accelerate with strong ~ growth from new projects

### **SUPPLY**



- China forecast to be net importer and new supply required to meet rest of world demand as early as 2025
- Investment in new projects necessary to meet demand
- NdFeB magnets will move to the best value in use  $\checkmark$ 
  - The emerging supply gap has extra significance for companies not aligned with the Made in China 2025 strategy

### PRICING



- NdPr price does not reflect true market dynamics and so discourages new investment
- Alternate supply source will reduce China's influence on NdPr price

### NdPr Supply & Demand



### 2030 Demand

Reference: Arafura internal Supply Demand forecast referencing CRU, Rare Earth Market Study 2020; Roskill, Rare Earth Market Analysis 2018; Kingsnorth, The Rare Earths Market in 2020.

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# Nolans NdPr Project



# Strategic



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

- 100% Australian domiciled
- ✓ Sound project economics with 39-year mine life
- $\checkmark$  Ore to oxide at a single site
- Phosphoric acid product places Nolans in a unique position to compete with China on cost
- Provides supply source certainty outside Made in China 2025 strategy





# Ideal Location



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### Close to existing key infrastructure

- Stuart Highway 10 km east
- Water supply 30 km south
- Tailings and process wastes at site
- Alice Springs railyard, airport and other services 135 km south
- Amadeus natural gas pipelineadjacent to project site



# **Shovel Ready**



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# **Robust Economics**

	Ore Reserves	Mining Inventory
Mining & Processing		
Project Life (years)	33	39
Production		
NdPr Oxide (tpa)	3,923	4,325
Financial		
Capital Cost (A\$m)	1,003	1,026
KPI Analysis		
Operating Cost (US\$/kg NdPr with Phosphoric Acid credit)	\$27.02	\$23.71
NPV10 after tax (A\$m)	782	968
IRR after tax (%)	17.29%	17.97%
After tax payback	Year 5	Year 5

As announced on 16 March 2020. Average production and costs are calculated as the arithmetic annual average following the anticipated three year ramp up and excluding the partial final year of production.

- Definitive Feasibility Study (DFS) in 2019
- Ore Reserves & Mining Inventory updated in 2020
- Capital cost A\$1,026m
- Low cost producer at US\$23.71/kg NdPr (current price US\$66.36/kg\*)
- Costs include ESG compliance
- Only Australian NdPrfocused project that is shovel ready



# **Our ESG Priorities**

- Sustainable Operations
- Sustainable Quality Product
- Social Performance
- Engagement with Stakeholders
- Our People
- Employment
- Health, Safety & Wellbeing
- Community
- Land Management
- Environment
- Emissions, Waste & Effluent Management





### **Alignment with Global Standards**

- Equator Principles
- ✓ IFC Performance Standards
- ✓ UN & MCA Sustainable **Development Goals**
- ✓ Australian Centre for **Sustainable Mining Practices**









Creating Markets, Creating Opportunities

**Finance Corporation** 

# Offtake & Project Financing



# The Offtake Strategy



**Customer engagement** targeted at NdPr users **not aligned** with *Made in China* 2025 strategy



Customer qualification of final rare earth oxide products completed

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Offtake model aligned with Export Credit Agency (ECA) requirement to tie offtake to home jurisdiction, with product offtake closely linked to project funding



Appointment of European-based advisory firms to assist engagement



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## Sales Distribution Targets

Offtake advanced with:



Japan – NdFeB magnet manufacturers



**Europe & Korea** – automotive component makers and OEMs, and wind turbine makers



**China** – Tier 1 NdFeB magnet manufacturers in China with significant export markets

Customer / Target Region	Amount (tpa)	Offtake Status	Proportion of Rare Earths Revenue			
NdPr Oxide – targeting contract with NdFeB magnet companies &/or end users						
JingCi Material Science	900	MoU				
Baotou Tianhe Magnetics	900	MoU				
Japan		In progress	96%			
South Korea						
Europe	2,557					
USA						
SEG-HRE Oxide – targeting contract with rare earth processors						
China	606 (TREO		1%			
Japan	equivalent)	In progress				
Cerium Oxide – targeting contracts with rare earth processors						
Baotou Xinyuan Rare Earth Hi-tech	8,383 (TREO equivalent)	MoU	3%			

 Arafura aims to have 85% of NdPr production underpinned with offtake contracts.



# An ECA-led Funding Strategy



### Nolans is a strategic **Australia** based **NdPr** project

- Production aligned with forecast supply shortages in mid 2020s
- Product wholly aligned with key ECA mandates of e-mobility and renewable energy
- Debt led funding structure, targeting ECA funding
  - ECAs are seeking well structured projects, critical raw materials (CRM) production and best-practice ESG standards
- Debt process now "live" with advisory appointments



## **Targeted Funding** Structure

- ✓ Offtake, debt and strategic equity interlinked and driving schedule
- ECA untied and tied loan <u>guarantees will be</u> critical but not the entire funding solution
- Leverage the "halo effect" of the ECA-backed debt structure and potential terms to attract equity at a better valuation





# Next Steps



## **Immediate Focus**



Prioritising project work streams against cash balance to maintain project momentum. Advancing terms sheets with end users for offtake. **Escalating engagement** with financiers & financial advisors for project financing.

### **Continued dialogue** with Australian & other governments seeking to establish non-Chinese critical minerals supply chains.



# **Indicative Timeline**

- ✓ Timeline subject to change and is contingent on funding and offtake activities
- ✓ Targeting Front-End Engineering & Design (FEED) to be fully funded prior to commencement

Morke Activity	Execution Readiness	Early Contractor Involvement	Enabling Works Construction	Construction	Production		
Works Activity	Months Duration from Project Commitment Date						
	-4 -3 -2 -1 0	1 2 3 4 5 6	7 8 9 10 11 12	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	31 32 33 34 35		
Project Commitment							
Production Commitment							
First Production							
EXECUTION & OPERATIONAL READINESS							
FEED & ENGINEERING DEVELOPMENT							
PROCUREMENT & CONSTRUCTION							
COMMISSIONING & RAMP-UP							



# Contact Information



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## Mineral Resources & Ore Reserves

RESOURCES	TONNES (m)	RARE EARTHS TREO %	PHOSPHATE P <sub>2</sub> O <sub>5</sub> %	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 Nd<sub>2</sub>O<sub>3</sub> and Pr<sub>6</sub>O<sub>11</sub>.

RESERVES	TONNES (m)	RARE EARTHS TREO %	PHOSPHATE P <sub>2</sub> O <sub>5</sub> %	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  $Nd_2O_3$  and  $Pr_6O_{11}$ .

