

Nolans Rare Earths Project

30 July 2020

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30/07/2020



(ASX:ARU)



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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). 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 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) 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.



Nolans Project

NdPr Rare Earths – What are they?



They are 'Critical Minerals' which are essential to the economic wellbeing of the world's major and emerging economies




138,905 57 La Lanthanum	140,116 58 Ce Cerium	140,908 59 Pr Praseodymium	144,243 60 Nd Neodymium	144,913 61 Pm Promethium	150,36 62 Sm Samarium	151,964 63 Eu Europium	157,25 64 Gd Gadolinium	158,925 65 Tb Terbium	162,500 66 Dy Dysprosium	164,930 67 Ho Holmium	167,259 68 Er Erbium	168,934 69 Tm Thulium	173,055 70 Yb Ytterbium	174,967 71 Lu Lutetium
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Nd
Neodymium

Pr
Praseodymium

Clean energy NdPr for magnets from the Nolans Project in Australia

Automotive	EV Drivetrain	E-Bike	HDD + ODD	Speakers	MRIs	Wind Turbines	Air Con + Refrigeration	Factory Automation	Other Industrial
									

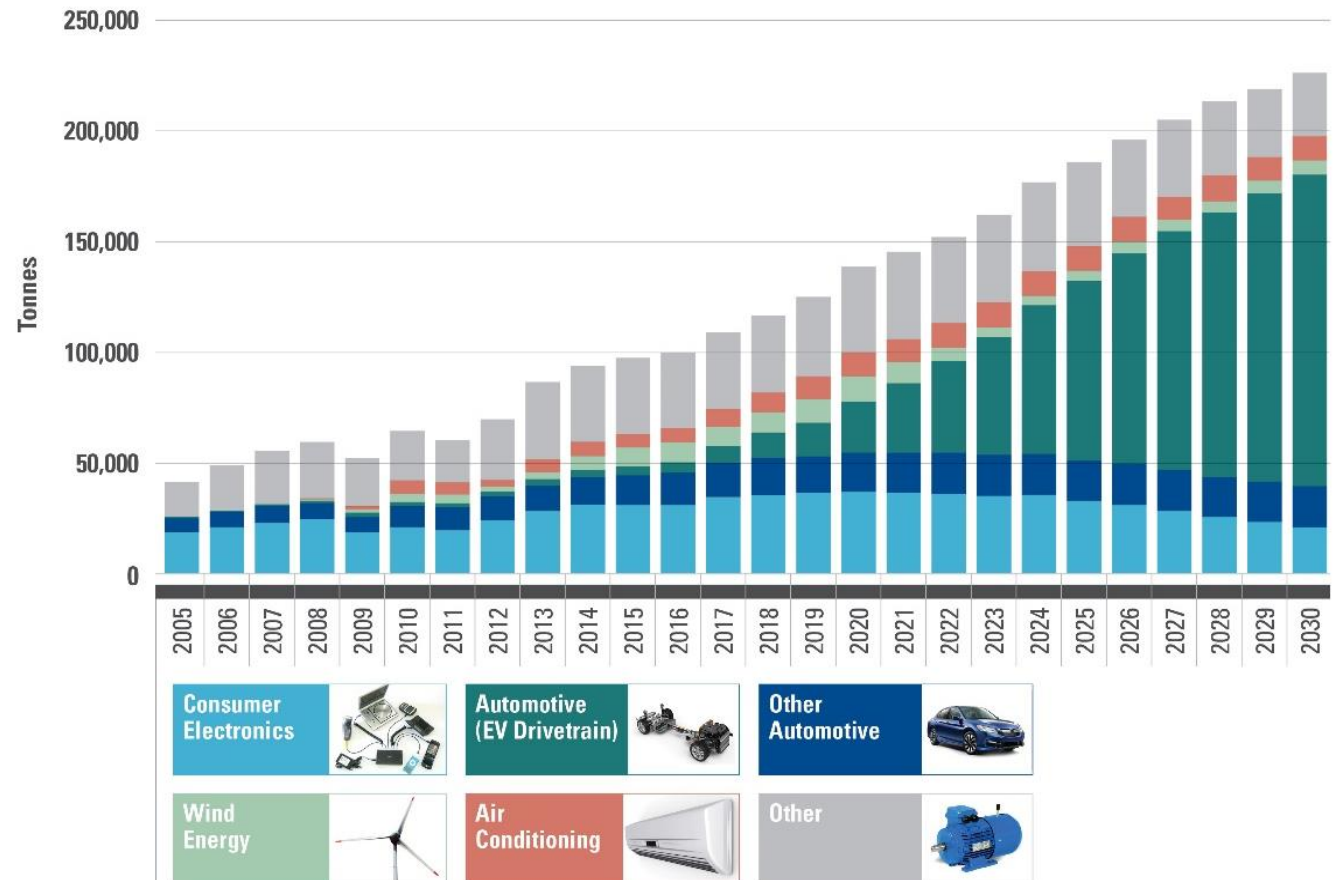


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Electric Vehicles

- ✓ NdFeB demand growth for EV applications is more dramatic and forecast to grow by 24% p.a.
- ✓ EV applications require high quality and efficient motors using NdFeB magnets
- ✓ New supply will not come on stream fast enough to meet demand - supply will move to the best value in use

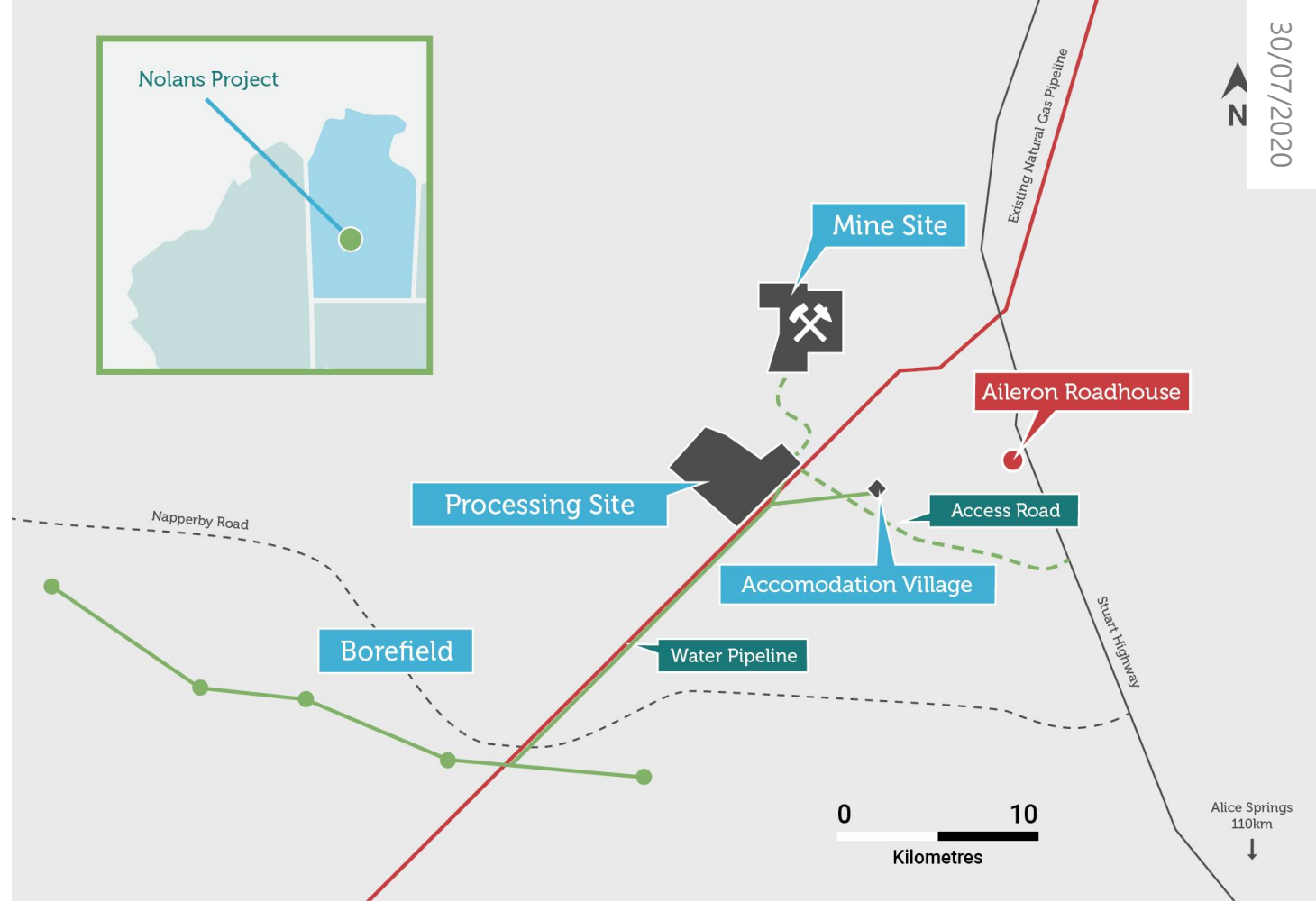
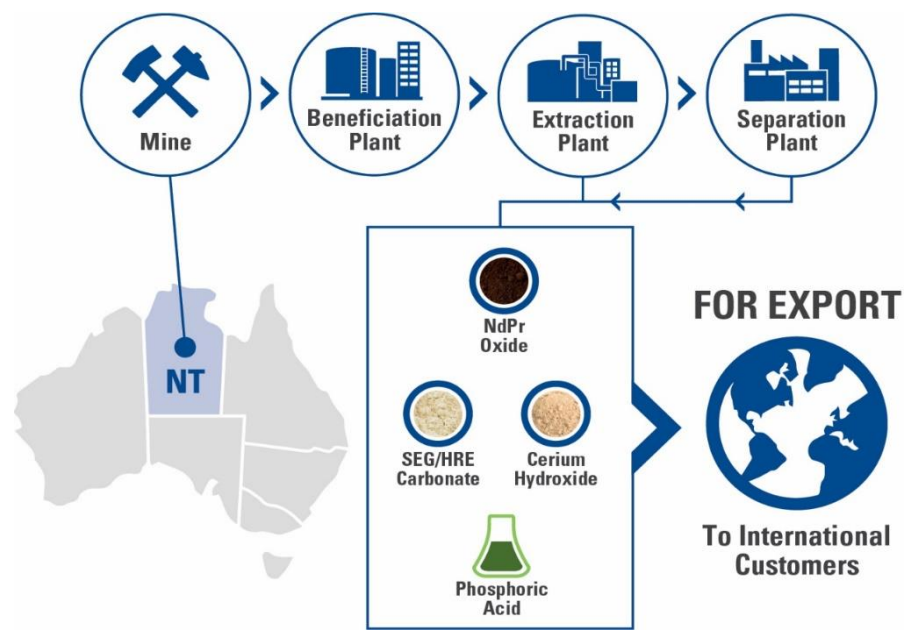
NdFeB Magnet Demand by Application



Other includes MRI, elevator motor, magnetic separator, robotics and industrial applications.

Source: Roskill Consulting (November 2018) – Rare Earths Market Analysis

100% Australian Domiciled in the NT



- 1** Ore to oxide at a single site
- 2** Environmental approvals secured, native title agreement signed, mineral leases granted

- 3** Product traceability and single site waste management certainty
- 4** DFS includes fully-costed rehabilitation of permanent disposal facility for tailings and process residues

Licence to Operate – Sustainable Supply



Extensive community and stakeholder consultation



Waste management plan tailings and residue facility



Assessing impact from mining, extraction and transport corridor



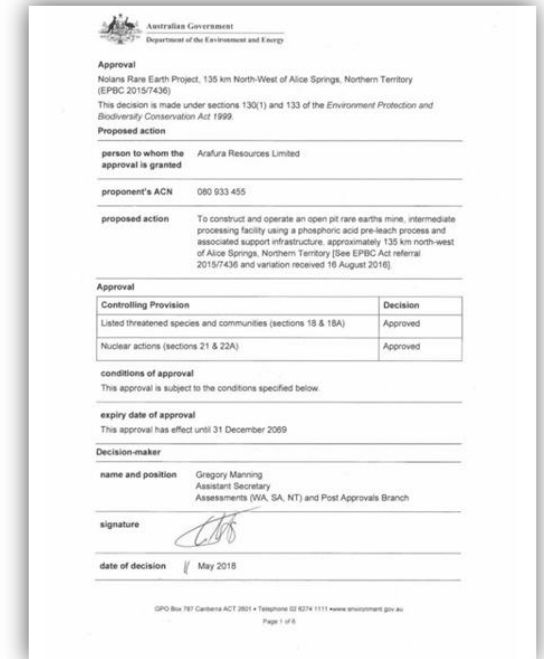
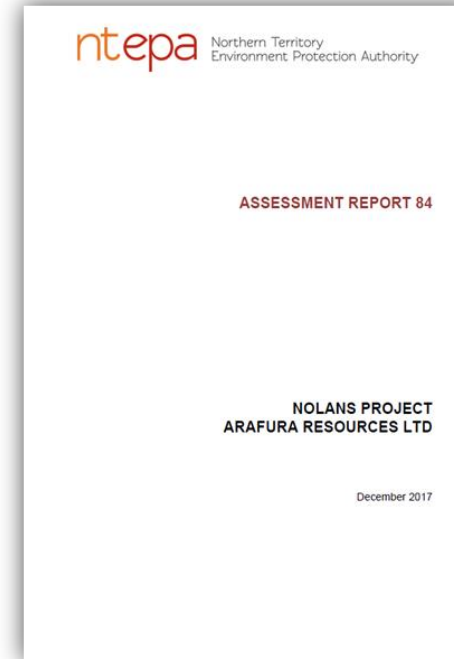
Surface water and groundwater management plans



Biodiversity studies on existing flora and fauna



Framework for decommissioning closure and rehabilitation



- ✓ **Nolans is the only NdPr-focused project in Australia with environmental approval for mining, extraction and separation, including for radioactive and other waste management from all processes**
- ✓ **Provides customers with a long-term reliable and sustainable supply from outside China**

Definitive Feasibility Study (DFS) Completed & Improved

	DFS Ore Reserves	Updated Ore Reserves	Updated Mining Inventory
Mining & Processing			
Project Life (years)	23	33	39
Production			
NdPr Oxide (tpa)	4,357	3,923	4,325
Financial			
Capital Cost (A\$m)	1,006	1,003	1,026
KPI Analysis			
Operating Cost (US\$/kg NdPr with Phosphoric Acid credit)	\$25.94	\$27.02	\$23.71
NPV10 after tax (A\$m)	729	782	968
IRR after tax (%)	17.43%	17.29%	17.97%
After tax payback	Year 5	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.

- ✓ DFS completed February 2019
- ✓ Ore Reserve updated March 2020
- ✓ Capital cost **A\$1006m**
- ✓ Low cost producer at **US\$25.94/kg NdPr**
- ✓ **Long-life asset** up to 39 years following Ore Reserve update
- ✓ Only Australian NdPr project that is **shovel ready**

Job Creation during Construction & Operations

- ✓ **Territory Benefit Plan** being developed
 - ✓ Local and indigenous business involvement and support
 - ✓ Employing Territorians
 - ✓ Building community capacity
 - ✓ Promises open and transparent communication with stakeholders
- ✓ **30-month** construction period
 - ✓ \$1 billion initial capital spend
 - ✓ **Peak workforce of 620***
 - ✓ Meeting Arafura's commitments will be contractually mandated
- ✓ **Minimum 39-year** operational life
 - ✓ \$225 million annual spend
 - ✓ **280* direct permanent jobs** across the Territory
 - ✓ Jobs in mining, complex chemical processing, laboratory, maintenance, logistics, HSEC, commercial, administration, accommodation
 - ✓ Support for career development and progression
 - ✓ Sponsorship in education and community projects planned
 - ✓ **Targeting locals as a priority**

* 25% initially expected to be sourced from the NT



Economic & Cost Benefit Impacts

- ✓ Nolans creates a very significant benefit for the Territory in terms of value added to the economy, boost to incomes of Territorians, and job creation
- ✓ Nolans returns a benefit to cost ratio of 1.5-1.8 based on the 23-year operational period considered in the DFS

All values expressed in real 2018 Australian dollars, and results presented in financial years and based on data supplied by Arafura from the February 2019 Definitive Feasibility Study that describes the construction, operation and closure phases of the project over a 26-year period.

Source: Acil Allen (April 2020) – Economic Analysis of the Nolans Project



\$1.01 bn

of capital expenditure over three years of construction as well as ongoing sustaining capital expenditure



\$225 m

average annual operation expenditure per annum in each of the 23 years of operation



Local content spending of

20%

in construction and

45%

in operation in the Northern Territory



\$2.3 bn

of taxes and royalties paid by the project to Northern Territory and Australian governments over the life of the project

* FTE = Full time equivalent. One FTE is the equivalent of one person working for one year on a full time basis.



An average contribution of

\$328 m

each year to the Gross Regional Product of the Alice Springs region

EQUATING TO A



47 %

increase to the contribution made by the mining industry**



An average increase of

\$344 m

each year to the real incomes of all Australians

INCLUDING



\$13 m

each year to people living in the Northern Territory



An annual average of

\$173 m

to total taxation revenue in Australia which benefits all Australians

OF WHICH



53 %

is directly paid by the Nolans Project

** Economic regional profile data from economy.id.com.au for 2018/2019 financial year.

Execution Timeline & Strategy



2020 Project Focus



1

Early Engineering Works

- ✓ Gap analysis
- ✓ Validation of DFS costs
- ✓ Engineering Optimisation

2

Project Update

- ✓ Escalated capital and operating costs
- ✓ Some updated pricing
- ✓ Updates for flowsheet changes
- ✓ Updated financial inputs

3

Execution Readiness

- ✓ Basis of design
- ✓ Project execution plans
- ✓ Key processes & systems
- ✓ Tender shortlists

Integrated Project Management Team



Project Management

Contracts & Procurement

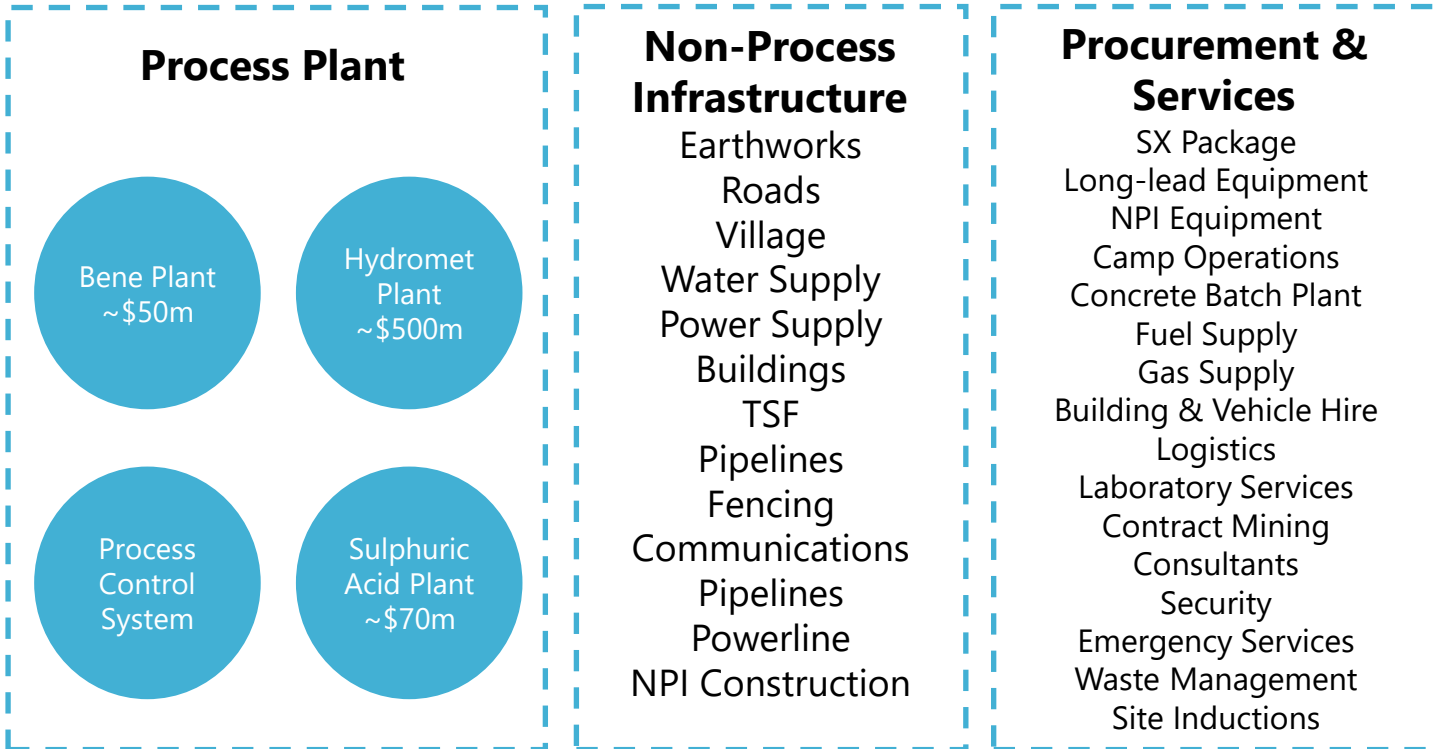
Project Controls

Owners Engineers

NPI Design

Contracting Strategy

- ✓ Overarching project management by Integrated Project Management Team (IPMT)
- ✓ Process Plant separated into three EPC contracts and control system
- ✓ Non process infrastructure (NPI) designed and managed by IPMT
- ✓ NPI contracts and procurement delivered by "right sized" contractors



Commissioning & Operations



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Key Contractors

- ✓ KBR/Wave International Engaged as IPMT
- ✓ Clough Worley Joint Venture preferred contractor for hydrometallurgical plant
- ✓ Beneficiation & Acid Plant to be tendered in parallel with early design on hydrometallurgical plant

Integrated Project Management Team



Hydrometallurgical Plant



Beneficiation Plant



Sulphuric Acid Plant



Pathways to Industry Participation



Territory Benefits Plan



- ✓ Based on Arafura's Industry Participation Policy
- ✓ Meets requirements of and includes Arafura's Australian Industry Participation (AIP) plan
- ✓ Supported by our local and indigenous procurement & employment plans
- ✓ Incorporates employment, training and development
- ✓ Rolled down through head contractors

ICN Gateway

- ✓ Active on ICN gateway for a number of years
- ✓ 1,224 current expressions of interest
- ✓ ICN Gateway to be the key to the Project tendering process

Nolans Project

📍 Locations:	NT Australia
💰 Project Value:	AUS1,006M
⚠️ Project Status:	Financing and Mining Approvals
🏢 Project Owner	Arafura Resources Limited

Project Details

Arafura's development of the Nolans Rare Earths (RE) Project will encompass a Mine, Beneficiation Plant, Extraction Plant, Separation Plant and related infrastructure to be constructed and located at the Nolans site in the Northern Territory. The Nolans site is located on Aileron Station, approximately 135 kilometres NW of Alice Springs.

SHOW MORE

Project Documents

DFS ▲ CONTRACT

- 📄 Nolans DFS Fact Sheet
- 📄 Nolans DFS Presentation
- 📄 Nolans DFS Summary Report - Final

Media ▲ CONTRACT

- 📄 Native Title Agreement 26/06/2020
- 📄 Investor Presentation 08/06/20
- 📄 Change of Address 08/05/2020
- 📄 Investor Presentation 06/05/2020
- 📄 Quarterly Activities Report and Appendix 5B 23/04/2020
- 📄 In Principle Indenture 1 and 1.1a Agreement Reached 02/03/2020



Contact Details

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ICN Gateway

- ✓ Target go-live with contract packages in early 4Q20
- ✓ Re-register for packages
- ✓ Copy of this presentation to be uploaded on ICN

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Project Documents

Project Presentations ▲ CONTRACT

Arafura Resources - Nolans Project Briefing July 2020



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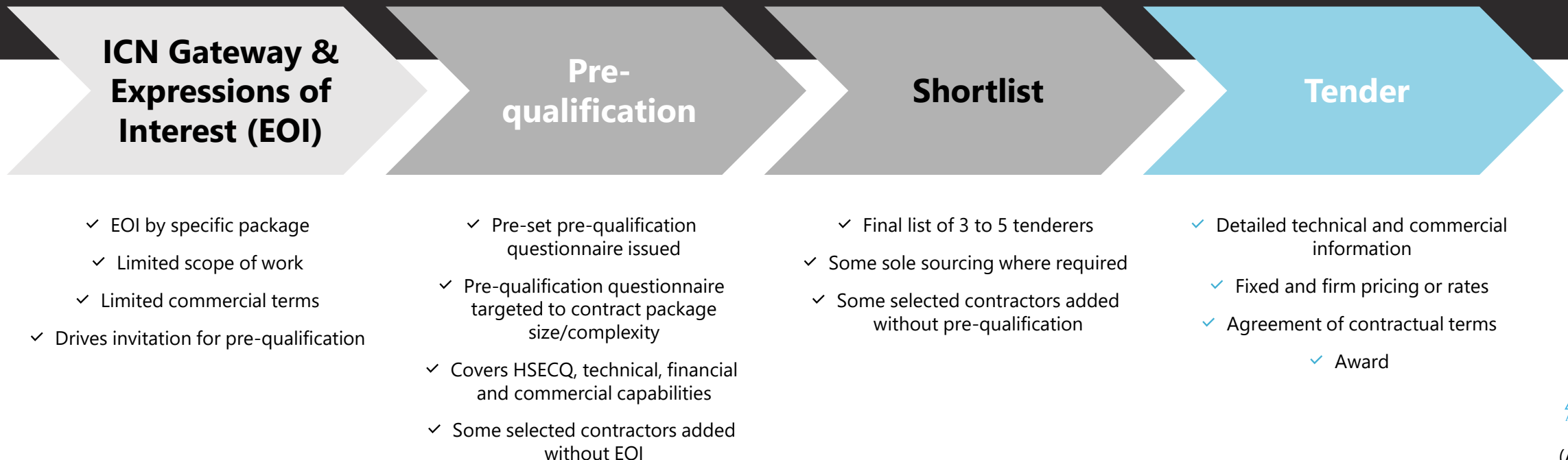
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Project Tendering Process

- ✓ Aims to select most appropriate, capable and cost effective contractor for each package
- ✓ Process to be rolled down to key contractors where appropriate
- ✓ Also the mechanism to ensure local and indigenous involvement in the Project



Contact Information



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