

# The Nolans Project: A sustainable source of NdPr for Korea

30 October 2023



# The Nolans Project



Advanced manufacturing **producing NdPr in Australia's Northern Territory** – one of the world's most favourable mining jurisdictions.



Capacity to supply **~5% of global NdPr demand** at full 4,440tpa production.



Strong **Australian Government support** for the Nolans Project due to **close alignment with Federal critical minerals policy**.



Over 30% of **nameplate production in binding agreement with Hyundai and Kia**. Awaiting **Korean export credit agency** funding support.



German and Canadian **export credit agency lending** linked to offtake from Nolans.



Large **high-grade** resource underpinning a **long mine life**.



All Northern Territory Government **approvals secured**, Mineral License and Mining Authorisation granted, Native Title Agreement in place.



**Single-site processing model** includes waste and tailings management aligned strongly with tier 1 manufacturer and OEM **ESG commitments**.



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# Favourable 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 cumulative annual growth rate (CAGR) in NdPr supply of ~6.9%.

## Supply

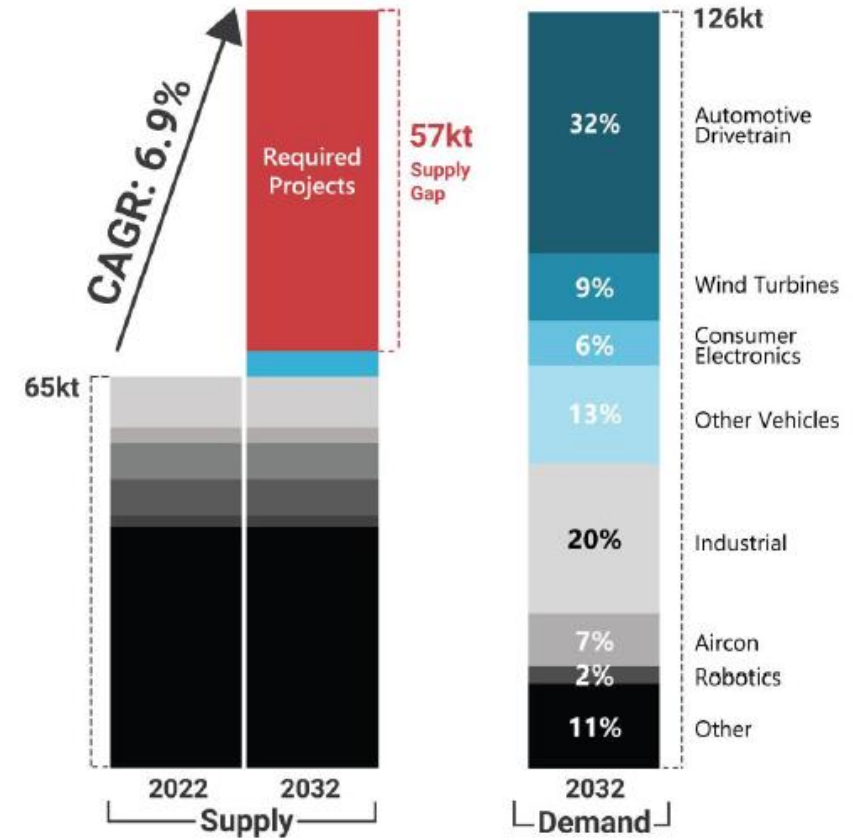
- ✓ Forecast supply gap represents ~88% of global supply today – **more than 12 Nolans projects.**
- ✓ Tighter regulatory and policy controls are expected to constrain China's ability to expand at pace and open new mines.
- ✓ Few non-China NdPr projects are anticipated to be in production in the next five years.
- ✓ Emerging supply gap has additional significance for companies not aligned with the *Made in China 2025* strategy.

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 Balinfo 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 (BEV), Hybrid Electric Vehicles (HEV) and Plug-in Hybrid Electric Vehicles (PHEV).

## Material Investment in New Projects is Required to Meet Projected NdPr Demand

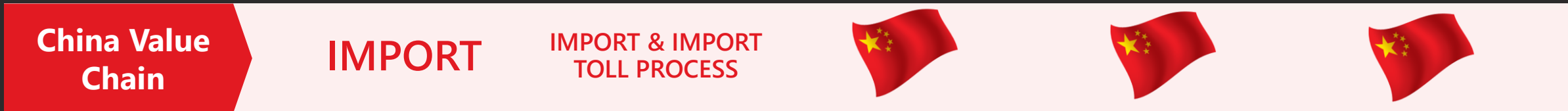
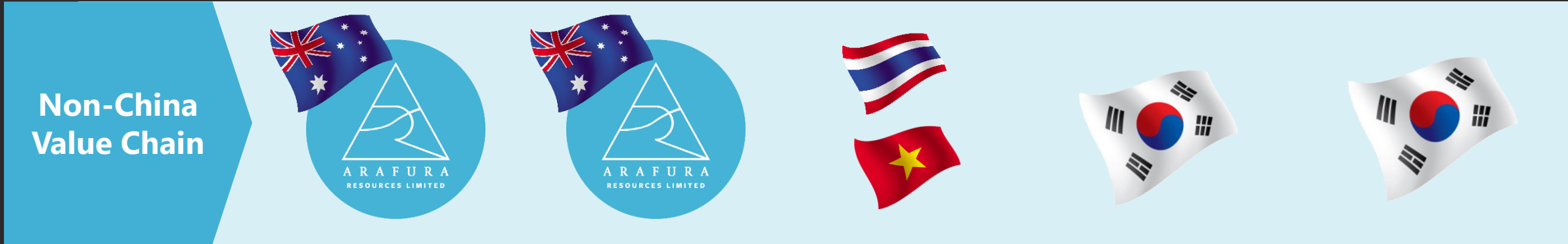
### NdPr Supply & Demand

Based on end-use demand from magnets



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# The Strategic Importance of Producing NdPr Oxide



Export of rare earth ores and concentrates banned

- IP restrictions
- Export licence
- No VAT rebate

- IP restrictions
- Export licence
- No VAT rebate

- IP restrictions
- VAT rebate

- Incentivised
- VAT rebate (on magnets)
- China policy

# Offtake



Offtake strategy aligned with NdFeB users who need a diversified supply chain.

Binding offtake agreements with Hyundai and Kia and Siemens Gamesa for up to 2,000 tpa oxide (or metal equivalent).

Three other companies including GE in contract negotiations representing 50% of Binding Offtake Target.



**Arafura is targeting 85% of Planned Production<sup>1</sup> as binding offtake (Binding Offtake Target).**

| 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        | 500                           | 13%                         |
| <b>Offtake under discussion<sup>3</sup></b> |                |                               |                             |
| Contract negotiations                       | Japan & Europe | 1,855                         | 50%                         |
| Advanced offtake discussions                | Europe & US    | 2,600                         | 69%                         |
| <b>Total</b>                                |                | <b>6,475</b>                  | <b>172%</b>                 |

Targeting NdPr users not aligned with the **Made in China 2025 Strategy**



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1. Planned Production refers to the average annual production from Nolans of 4,440 tpa (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.

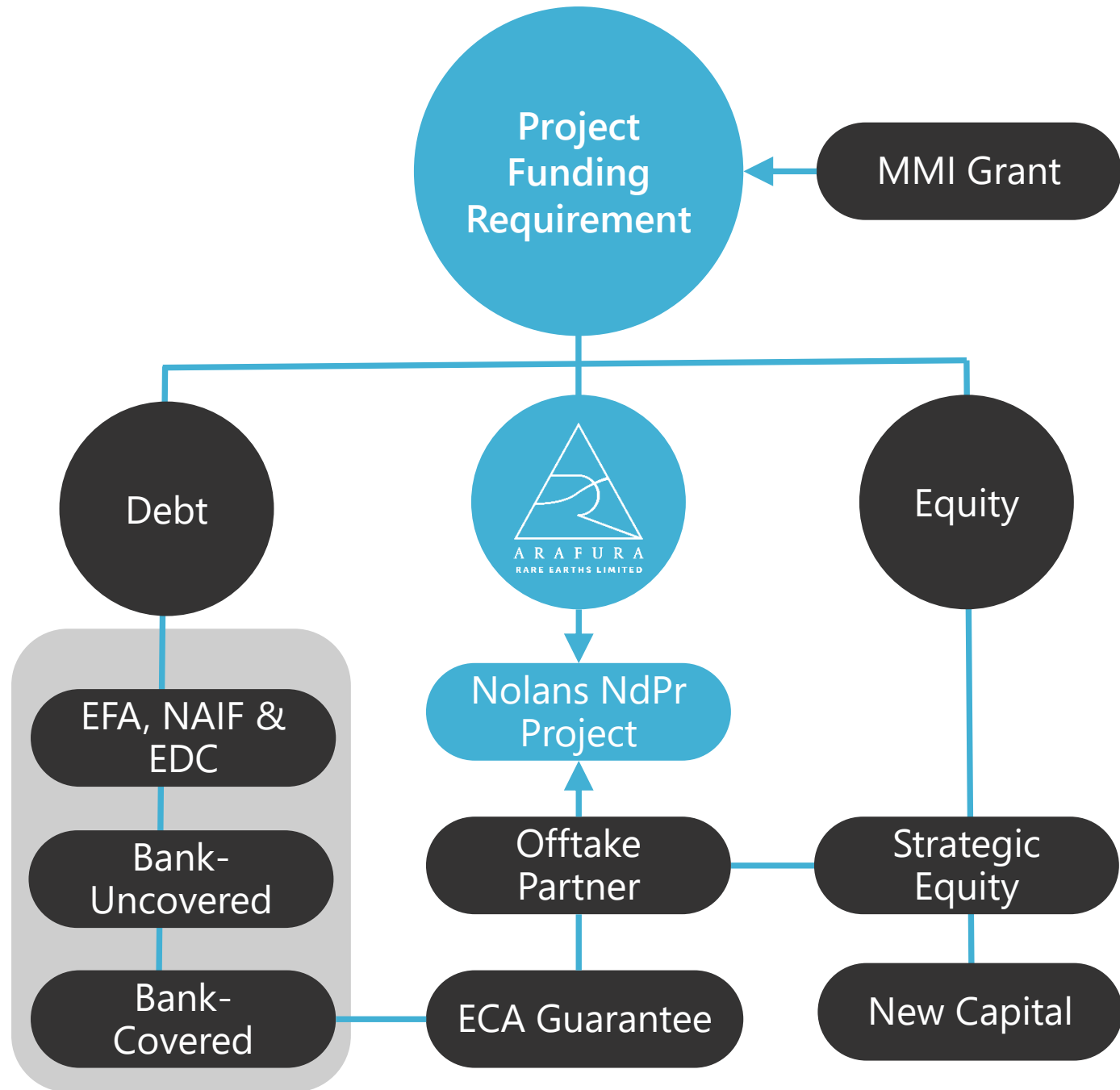
# Funding Structure

## Debt

- ✓ Société Générale and KfW appointed MLAs.
- ✓ KfW appointed Export Credit Agency (ECA) structuring bank.
- ✓ Offtake drives the participation of untied ECA funding and creates debt liquidity.
- ✓ MLA financing will have a covered (ECA guarantee supported) and uncovered portion.
- ✓ NAIF and EFA letters of support A\$350m of debt, subject to further DD and credit approval.
- ✓ Euler Hermes letter of support for up to US\$600m untied loan guarantee subject to offtake with German companies and credit approval.
- ✓ Letter of Interest from Export Development Canada for up to US\$300 million debt financing, subject to further DD, facilitated via MoU with GE.

## Equity

- ✓ Potential strategic investment being negotiated in conjunction with offtake through HoA with Hyundai.
- ✓ Other strategic equity linked to potential offtake.
- ✓ Potential strategic investment through Hancock Prospecting maintaining 10% holding through to project funding.
- ✓ A\$30m MMI Grant for construction of separation plant reduces equity requirement.





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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 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 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.



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