

# ASX ANNOUNCEMENT

## OPTIMISATION OF PROJECT AND EXECUTION STRATEGY

21 April 2021

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- **In parallel with offtake and project funding activities, the Nolans Project Team continues to work on optimising the Project and execution strategy.**
- **Continued advancement of offtake and project funding activities combined with significant positive sentiment for the NdPr facilitates change to Front -End Engineering and Design.**
- **Execution strategy to incorporate detailed front-end engineering phase to reduce execution risk and deliver a higher level of cost certainty allowing for construction tenders to be received prior to Final Investment Decision (FID) for the process plant.**
- **Review of the Nolans Project has led to deferral of cerium production to allow focus on ramp-up of production of on-specification high value NdPr and to offset risk of downward pressure on cerium price.**
- **Further project update incorporating revised capital and operating cost estimates expected this quarter**

**Arafura Resources Limited (ASX:ARU)** (“Arafura” or the “Company”) is pleased to provide an update on various activities relating to the proposed development of its 100%-owned Nolans Neodymium-Praseodymium (**NdPr**) Project in the Northern Territory.

As offtake and project funding discussions continue to progress constructively, the Nolans Project Team has been working to optimise the Project execution strategy and in recent weeks, has settled on several changes.

### **Execution Strategy Update**

Incorporating feedback from potential contracting, offtake and financing partners, the integrated project management team (**IPMT**), which includes KBR and Wave International personnel, recently conducted a review of the Hydrometallurgical Plant execution strategy.

Combined with the increasingly positive outlook for NdPr pricing and the traction being gained in offtake discussions, the review has given Arafura the confidence to modify the execution strategy to a traditional detailed front-end engineering and design (**FEED**) model.

The main aspects of the FEED model are:

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**NdPr**

## **OPTIMISATION OF PROJECT AND EXECUTION STRATEGY**

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- Contracts for the engineering and procurement (engineering contractor) and the construction will be split;
- Detailed FEED will be completed by the engineering contractor to approximately 60-70% of design completion prior to tendering of construction;
- Significant procurement of equipment will be completed ready to place orders at the end of FEED;
- Engineering contract will be carried on rates to a target cost and will include performance and design warranties for the plant;
- Tendering of other contracts (beneficiation plant, acid plant and non-process infrastructure) will be undertaken in parallel with FEED.

Key advantages of the new strategy include:

- Splitting the engineering and construction contracts will bring in additional contractors for both packages, resulting in a more competitive tendering process;
- Detailed FEED will reduce the risk for construction contractors, which will reduce contingency and risk premiums; and
- Advanced design, procurement and tendering at FID will deliver a high level of cost certainty for the Project, improving the confidence of potential project financiers.

The change in execution strategy is expected to increase Project Delivery schedule by approximately eight months to allow for the 12-month FEED/tendering program along with some project expenditure incurred prior to FID. The change also enables the Company to advance offtake and financing discussions by reducing execution risk and allowing for construction tenders to be received prior to FID.

The contracting strategy for the other aspects of the Project, which include the beneficiation plant, sulphuric acid plant and non- process infrastructure, remains unchanged.

Arafura is investigating options for federal government grants to assist with funding of this FEED program and recently applied for a grant through the Modern Manufacturing Initiative (MMI).

### **Deferral of Cerium Production**

Arafura has made the decision to defer cerium production from the product mix at Nolans until after commissioning of the processing plant is complete and production has ramped up to full capacity. The deferral of cerium production is not material to project returns.

As part of ongoing optimisation work, it was identified that production of cerium delivered limited value to the Project. Coupled with low current spot prices, there is uncertainty over potential future oversupply of cerium as additional rare earths projects come online to meet increasing NdPr demand, placing further downward pressure on cerium prices.

Deferring the production of cerium will allow the Company to focus on the production of on-specification neodymium-praseodymium oxide, which is a higher value product and represents 95% of project rare earth revenue.

The deferral of cerium production will also allow for additional marketing efforts to identify potential customers that may be willing to pay a premium for Nolans' sustainably produced cerium oxide and for further

## **OPTIMISATION OF PROJECT AND EXECUTION STRATEGY**

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metallurgical test work and in-plant piloting of solutions that may reduce the operating cost of producing high purity cerium and may enable the production of cerium to proprietary specifications for specialist applications.

The cerium hydroxide processing circuit will still be included in the initial development of the Nolans plant to facilitate the recovery of additional NdPr (between 3-8% improvement in recovery over the DFS flowsheet). In addition, provision will be made in the design for the inclusion of the circuits necessary to produce high purity cerium.

### **Project Update**

The Nolans Project team continues to work on a further project update that will provide revised capital expenditure and operating expenditure estimates for the Project based on the changes detailed above as well as the updated Ore Reserve and mining inventory.

The update, which is expected to be finalised in May, will also incorporate revised product pricing based on the latest market research and input from early engineering works completed by several tier one engineers and constructors.

Arafura Managing Director Gavin Lockyer said: *"The Nolans Project is shovel-ready and we are continuing to look at ways to optimise its delivery whilst the required funding is put in place. Arafura's ore to oxide model is a differentiator from other companies that are only proposing to produce concentrates or intermediate products for processing elsewhere, and the feedback we've received from both customers and financiers indicates strong support for that approach and for the shift to the more traditional FEED model for the Project."*

**-ENDS-**

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