



HASTINGS
Technology Metals Limited

Onslow Rare Earths Plant

PROJECT UPDATE 1

October 2022

HASTINGS TECHNOLOGY METALS is proposing to construct and operate the Onslow Rare Earths Plant located 12 kms south of Onslow in the Ashburton North Strategic Industrial Area (ANSIA) in Western Australia's Pilbara region.

The Onslow Rare Earths Plant and the Yangibana Rare Earths Project are being developed by Hastings Technology Metals Ltd. (ASX: HAS), an Australian rare earths company.

Upstream, at Yangibana in the Upper Gascoyne, mining and production of Rare Earths Oxide will be undertaken using traditional drill, blast and haul operations followed by initial beneficiation processing (crushing, grinding and flotation).

Downstream, at the Onslow Plant in the Pilbara, Mixed Rare Earths Carbonate (MREC) will be produced rich in NdPr (neodymium & praseodymium) which will be exported to global customers.

THE SITE & PLANT

Several options were investigated for the site of the processing plant with the final selection at ANSIA guided by the State Government which had identified it as a location suitable for strategic industrial development.

The rare earths (RE) concentrate will be trucked 420 kms (Gifford Creek Rd, Towera-Minnie Creek Rd, Onslow Rd, North-West Coastal Highway) from Yangibana to the Plant, to undergo a hydrometallurgical process to produce a MREC.

The proposed infrastructure includes the processing plant, evaporation ponds, administrative facilities and parking, internal and access roads, a water pipeline from a borefield located 4 km east of the site, and natural gas and power connections.

The processing will comprise roasting, water leaching, purification, carbonate precipitation and neutralisation of waste streams. The hydrometallurgical tailings will be trucked to the Yangibana site. A barren gypsum stream will be disposed of within evaporation ponds on the Onslow site.

One to two trucks per day will transport RE concentrate from Yangibana to Onslow and then return to Yangibana with tailings material.

The MREC will be packaged in Bulka bags and then into sea containers; one truck per day will transport it to a port facility. Approximately 15,000 tpa of MREC will be produced and exported to global customers.

STATUS

- Baseline studies to assess the condition of the site are being conducted as required by land lease agreements with Water Corporation and Development WA.
- Geotechnical studies underway to inform geotechnical conditions required to confirm civil design requirements.
- Process Plant engineering and design continue.
- Fabrication of long lead items for the process plant and associated infrastructure in progress. Initial water supply equipment packages scheduled for delivery in 2022.
- The tender process has been initiated for some services and equipment such as the Reverse Osmosis Plant and borefield drilling.
- State Government permitting activity is ongoing for water, clearing and earthworks.
- Hastings has conducted environmental studies, that complement those previously undertaken by Government.
- Plant construction is scheduled to commence in 2023, with commissioning in 2024.

Hastings Technology Metals

Level 3, 5 Mill Street, Perth WA 6000

T: +618 61176118

E: info@hastingstechmetals.com

hastingstechmetals.com

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What are Technology Metals?

Generally, they are rare metals that are essential to produce “high tech” devices used in generating electricity using “alternative” sources such as solar panels and wind turbines; and in the storage of electricity using cells and batteries.

What are Rare Earths?

The term “rare earths” is somewhat misleading as the RE elements are not particularly rare. What is rare is for them to be present in such abundance that they can be economically utilised.

Rare Earth Elements (REE) are a set of 15 elements essential in production of green energy and electric mobility.

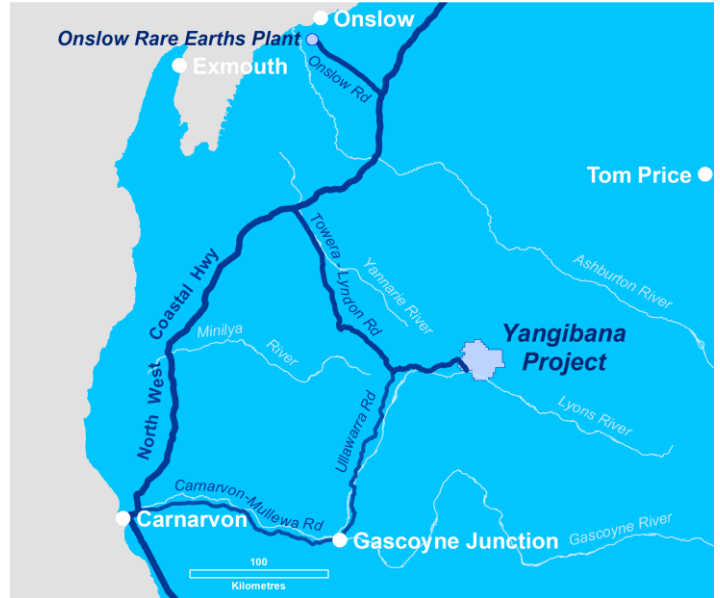
The two REE's of which there is no substitute, are neodymium and praseodymium – NdPr.

The market for NdPr will be in supply deficit over the coming decade due to strong global demand.

Hastings is developing an operation that will produce a mixed rare earths carbonate (MREC) product. Most of the value of the MREC is in its neodymium and praseodymium content, with lesser value derived from dysprosium and terbium content.

The Onslow Rare Earths Plant and the Yangibana Rare Earths Project are expected to supply up to eight percent of global NdPr requirements, *a significant contribution to the global energy transition.*

The Yangibana Rare Earths Project and the Onslow Rare Earths Plant are being developed by Hastings Technology Metals.



ENGAGEMENT

Hastings has engaged with the State Government and the Shire of Ashburton to develop the proposed Onslow Rare Earths Plant.

Local businesses, Onslow community members, the Buurabalayji Thalanyji Aboriginal Corporation and landholders in proximity to the ANSIA have been engaged about the proposal.

Hastings is committed to local supply chains and local content with an emphasis on local employment.

Plant production is planned for at least 15 years and is expected to employ around 70 people.

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Left: Hastings has recently conducted regional vegetation surveys to support development of the Onslow Plant.



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