

8 June 2022

TNG PRESENTATION AT THE RESOURCES RISING STARS INVESTOR CONFERENCE

Australian resource and mineral processing technology company TNG Limited (ASX: TNG) ("TNG" or the "Company") is pleased to advise that its Chief Financial Officer, Jonathan Fisher, will be presenting at the "Resources Rising Stars Investor Conference" on the Gold Coast today.

Event: Resources Rising Stars Investor Conference

Location: RACV Royal Pines Resort, Gold Coast, QLD

Presenter: Mr Jonathan Fisher, Chief Financial Officer of TNG Limited

Time: 8 June 2022 at 11.45am (AEST) / 9.45am (AWST)

Investors can watch the conference livestream at no cost by going to www.rrsinvestor.com.

A copy of the presentation is attached.

Authorised by:

Paul E Burton
Managing Director & CEO

8 June 2022

Inquiries:

Paul E Burton
Managing Director & CEO + 61 (0) 8 9327 0900

Paula Raffo
Company Secretary & IR + 61 (0) 8 9327 0900

Nicholas Read
Read Corporate + 61 (0) 8 9388 1474

Follow TNG on  

About TNG

TNG is a Perth based resource and mineral processing technology company focussing on building a world-scale strategic metals business based on its flagship 100%-owned Mount Peake Vanadium-Titanium-Iron Project in the Northern Territory. Located 235km north of Alice Springs, Mount Peake will be a long-life project producing a suite of high-quality, high-purity strategic products for global markets including vanadium pentoxide, titanium dioxide pigment and iron ore fines. The project, which is expected to be a top-10 global producer, has received Major Project Status from the Northern Territory and Federal Governments.

TNG is also advancing a green energy strategy with the dual objective of offsetting carbon emissions from its planned future operations and generating new business opportunities in the alternative energy market to create additional shareholder value, with a focus on green hydrogen and vanadium redox flow batteries.

TNG



DEVELOPING MOUNT PEAKE A CRITICAL MINERALS PROJECT IN NORTHERN AUSTRALIA

Resources Rising Stars Conference 2022

Jonathan Fisher – Chief Financial Officer
June 2022

FORWARD LOOKING STATEMENTS

This presentation has been prepared by TNG Ltd. This document contains background information about TNG Ltd current at the date of this presentation. The presentation is in summary form and does not purport to be all inclusive or complete. Recipients should conduct their own investigations and perform their own analysis in order to satisfy themselves as to the accuracy and completeness of the information, statements and opinions contained in this presentation.

This presentation is for information purposes only. Neither this presentation nor the information contained in it constitutes an offer, invitation, solicitation or recommendation in relation to the purchase or sale of TNG Ltd shares in any jurisdiction. This presentation may not be distributed in any jurisdiction except in accordance with the legal requirements applicable in such jurisdiction. Recipients should inform themselves of the restrictions that apply in their own jurisdiction. A failure to do so may result in a violation of securities laws in such jurisdiction.

This presentation does not constitute investment advice and has been prepared without taking into account the recipient's investment objectives, financial circumstances or particular needs and the opinions and recommendations in this presentation are not intended to represent recommendations of particular investments to particular persons. Recipients should seek professional advice when deciding if an investment is appropriate. All securities transactions involve risks, which include (among others) the risk of adverse or unanticipated market, financial or political developments. To the fullest extent permitted by law, TNG Ltd, its officers, employees, agents and advisers do not make any representation or warranty, express or implied, as to the currency, accuracy, reliability or completeness of any information, statements, opinions, estimates, forecasts or other representations contained in this presentation. No responsibility for any errors or omissions from this presentation arising out of negligence or otherwise is accepted. This presentation may include forward looking statements. Forward looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside the control of TNG Ltd. Actual values, results or events may be materially different to those expressed or implied in this presentation.

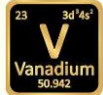
COMPETENT PERSON'S STATEMENTS

The information in this presentation that relates to the Mount Peake Mineral Resource estimates is extracted from an ASX Announcement dated 26 March 2013, (see ASX Announcement - 26 March 2013, "Additional Information on the Mount Peake Resource", www.tngltd.com.au and www.asx.com.au), and was completed in accordance with the guidelines of the JORC Code (2012). Initial mining and financial assessment work, based on the Mineral Resource, followed (see ASX Announcement - 15 July 2013, "TNG Considers Two-Stage Development Option for Mount Peake Project, NT ", www.tngltd.com.au and www.asx.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the Mineral Resource estimates in the relevant market announcement continue to apply and have not materially changed. The Company 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.

The Critical Minerals Sector



The Critical Minerals sector is getting an extraordinary level of support from government and interest from financiers and investors due to the long term energy transition thematic



Vanadium and Titanium have been identified by the Australian Government as critical minerals required to make advanced technologies that will support the global push for decarbonisation



Vanadium is known as “**The Green Metal**” and is a significant area of focus in the Critical Minerals investment theme due to its green credentials



However, Vanadium also has significant defence applications, most importantly in the military aerospace sector. It is **irreplaceable** in these uses

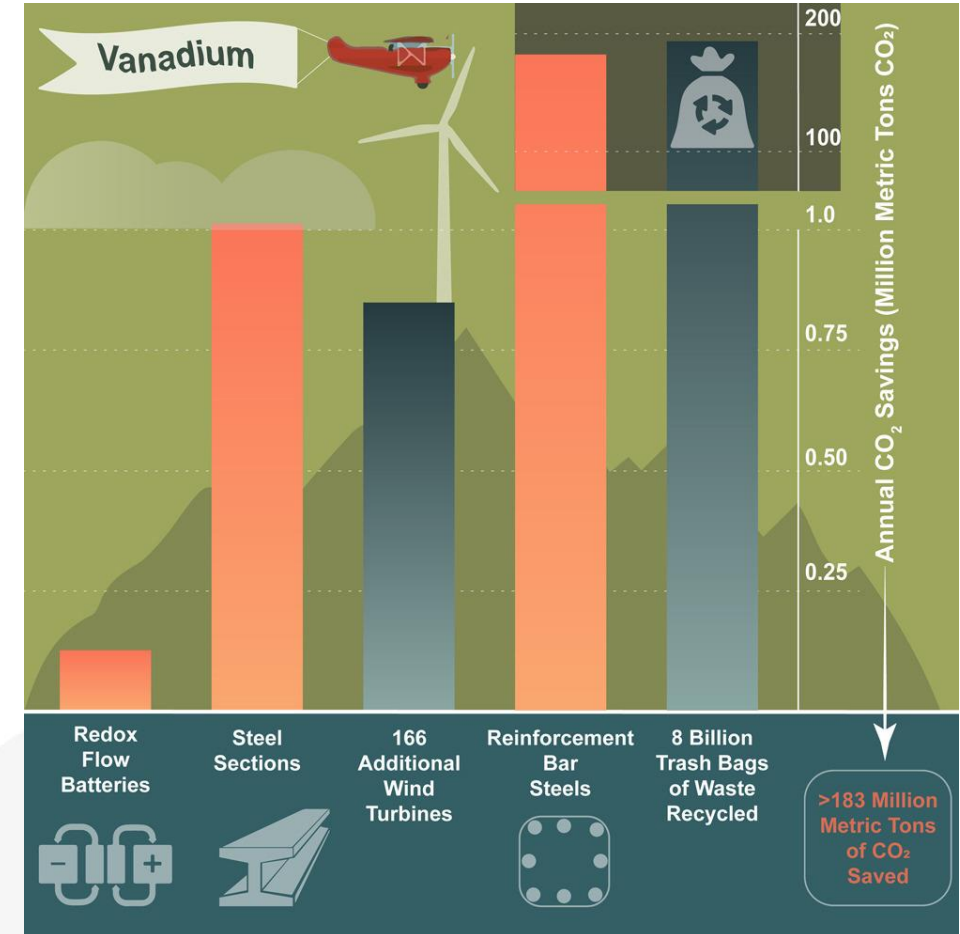


Current geopolitical issues are creating supply concerns for this highly important mineral. Russia is a major producer (and is also a major producer of titanium)



All of these is creating an environment which is highly supportive of new project development

Find out more at tngltd.com.au



Source: iScience, Volume 24, Issue 11, 19 November 2021, “Assessing the role of vanadium technologies in decarbonizing hard-to-abate sectors and enabling the energy transition”

The Company

TNG INVESTOR HIGHLIGHTS



Attractive exposure to the most in demand metals sector globally (critical minerals)



Innovative processing technology provides significant competitive advantages over any other vanadium projects globally – maximises diversification and ESG outcomes



TNG is methodically following steps required to finalise outstanding approvals and commence project development activities



Exposure to value-add VRFB energy and Green Hydrogen business focused on environmentally sustainable resources



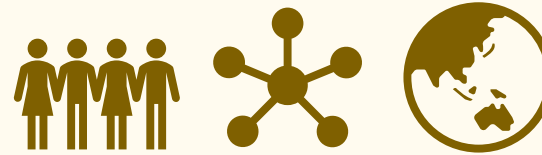
Current disconnect between TNG's Market Cap value and its Project Value

Commitment to the Development of Sustainable Operations



ENVIRONMENTAL

- ✓ Green energy strategy focussed on developing TNG's operations in a carbon-efficient way
- ✓ Partnerships for application of green hydrogen and use of Vanadium Redox Flow Batteries
- ✓ Development of the TIVAN® process enabling the extraction of three high quality products from the magnetite concentrate, instead of only one
- ✓ Environmental management incorporated into all long-term plans



SOCIAL

- ✓ Supportive relationship with Land Councils, native titleholders and the community at large
- ✓ Communication and consultation with local communities and local businesses about all operations and their environmental management
- ✓ Upskilling of local workforce
- ✓ Opportunities for Indigenous engagement
- ✓ Forecast of ~1,600 jobs during construction phase and ~1,000 jobs during the operational phase



GOVERNANCE

- ✓ Compliance with all legislative and common law requirements affecting its business
- ✓ Adoption of systems of control and accountability as the basis for the administration of corporate governance
- ✓ Commitment to corporate governance through TNG's Board and Management
- ✓ Adoption of the ASX Corporate Governance Council - Corporate Governance Principles and Recommendations

Mount Peake Project Key Facts

- Advanced stage of engineering and approvals ahead of a Final Investment Decision
- Vertically integrated mining and advanced processing operation
- Major Project Status awarded by the Australian Federal Government and the Northern Territory Government
- TIVAN[®] technology enabling production of three high-purity products at commercial grade
- Large flat-lying, shallow vanadium-titanium deposits in Australia
- Off-take agreements in place with global groups for all commodities
- Partnerships with Tier 1 development companies
- Mining licences and most regulatory permits/approvals in place

Key facts



\$17.5 billion*
contribution to Gross
Territory Product



A mine life of
37 years



\$710 million
of minerals royalties



Exports of
\$774 million
per annum



1,600-1,800 jobs
during construction

and



1,000-1,200 jobs
per annum during operation

Located in Excellent Jurisdiction

INTEGRATED OPERATION AT MOUNT PEAKE



Large existing Mining Lease area to hold a single site operation



Unconstrained area allows future development of value add products e.g. Vanadium Electrolyte (VE), Ferrovandium (FeV)



Optimised processing layout and simplified commissioning from single site



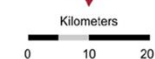
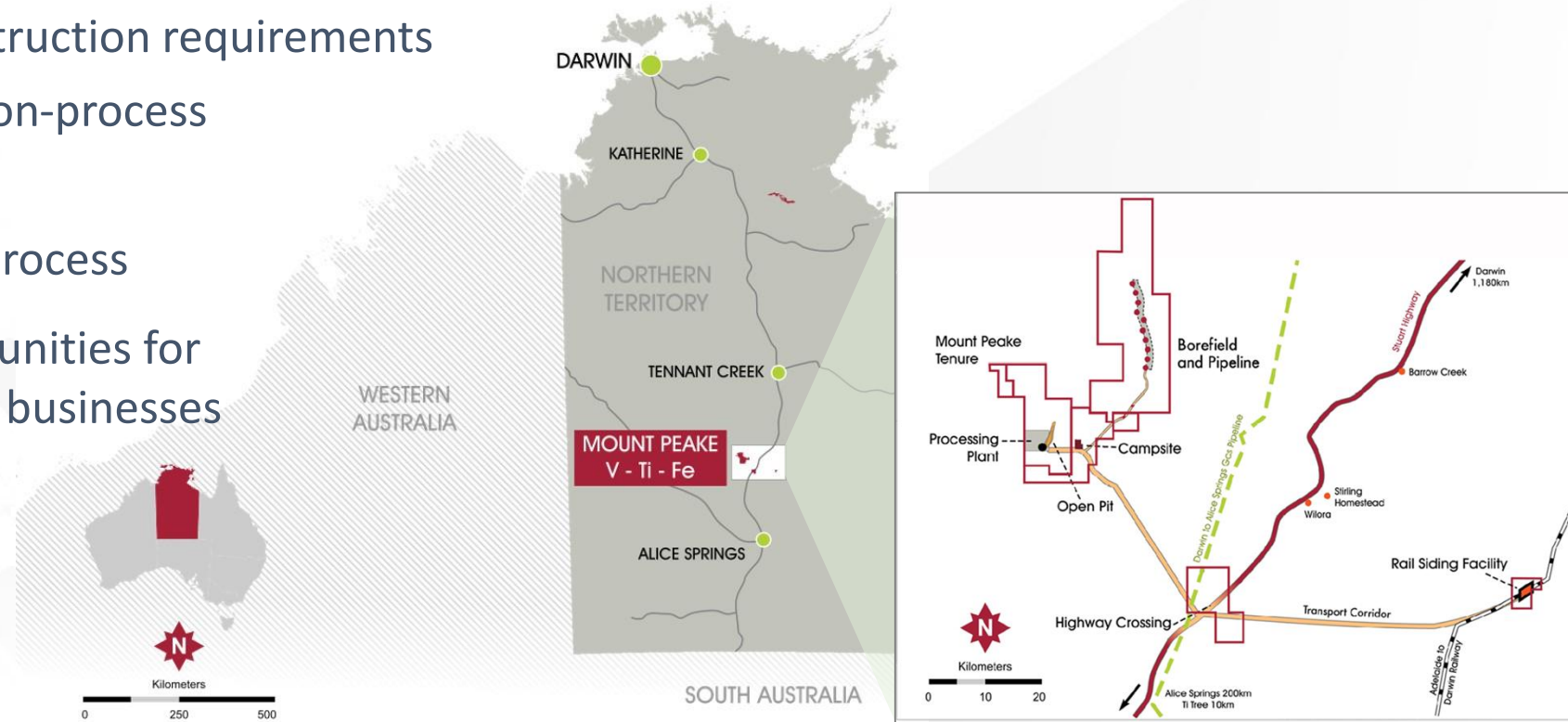
Significant reduction in construction requirements



Lower-risk final permitting process



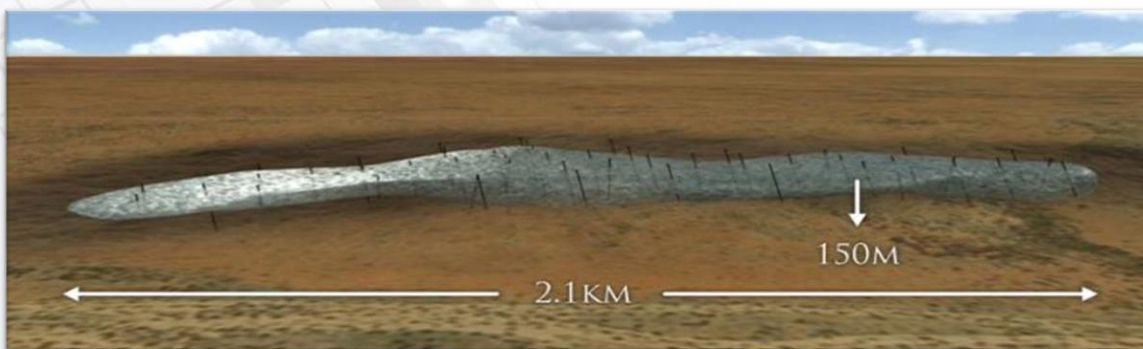
Significant increased opportunities for indigenous people and local businesses



Resource

ONE OF THE LARGEST VANADIUM DEPOSITS IN AUSTRALIA

- Typical titano-magnetite composition
- Flat ore body with low strip ratio (1.1 to 1)
- Two high grade vanadium pits
- Mining via a conventional open pit operation
- 37 year mine life
- Plant to be capable of accepting third party ores



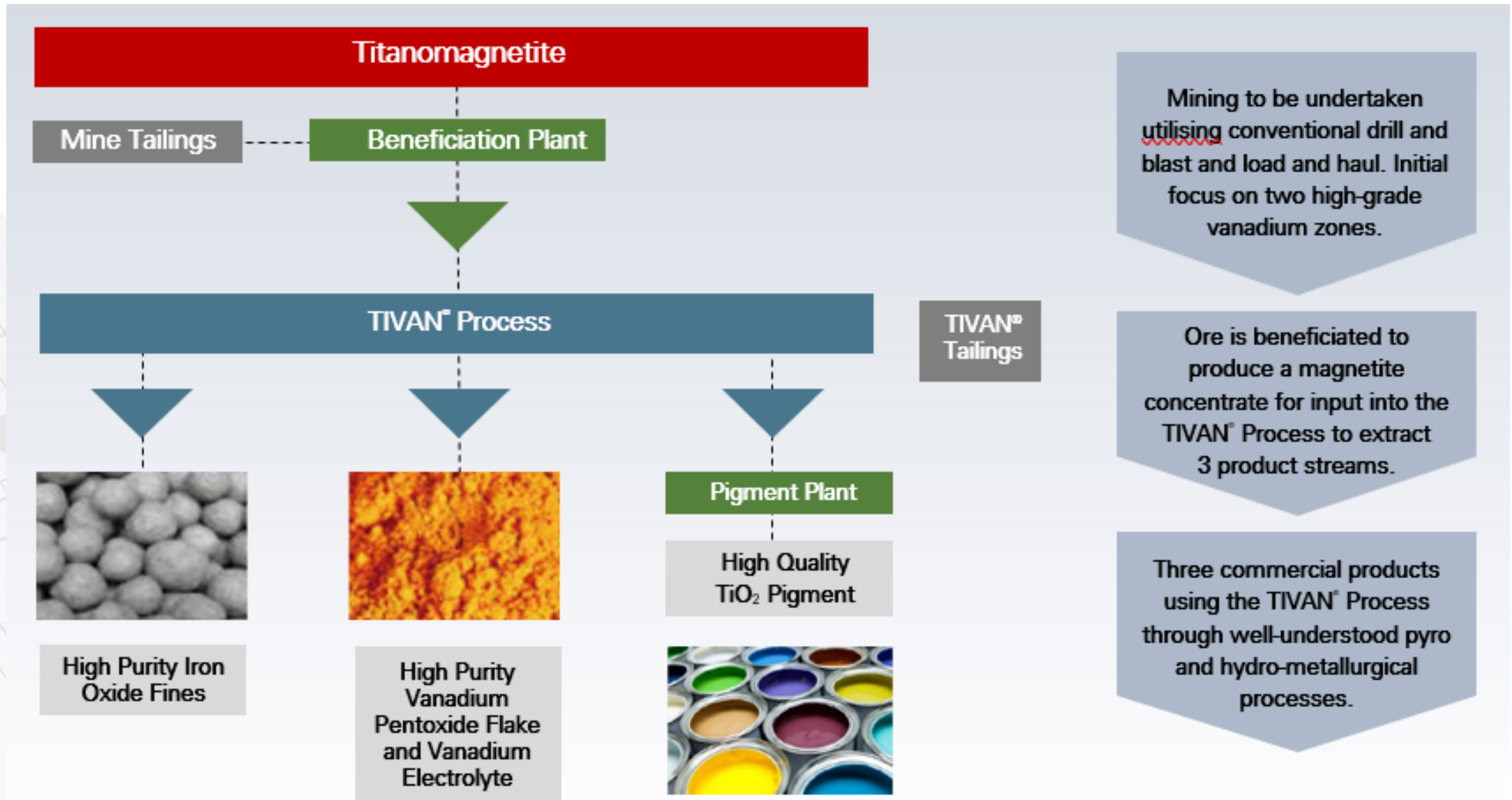
Mineral Resource 160 million tonnes

0.3% V_2O_5	5.3% TiO_2	23.0% Fe
------------------	-----------------	-------------

Concentrate Ore Grades

1.2% V_2O_5	16.1% TiO_2	53.2% Fe
------------------	------------------	-------------

Vertically Integrated Business Plan



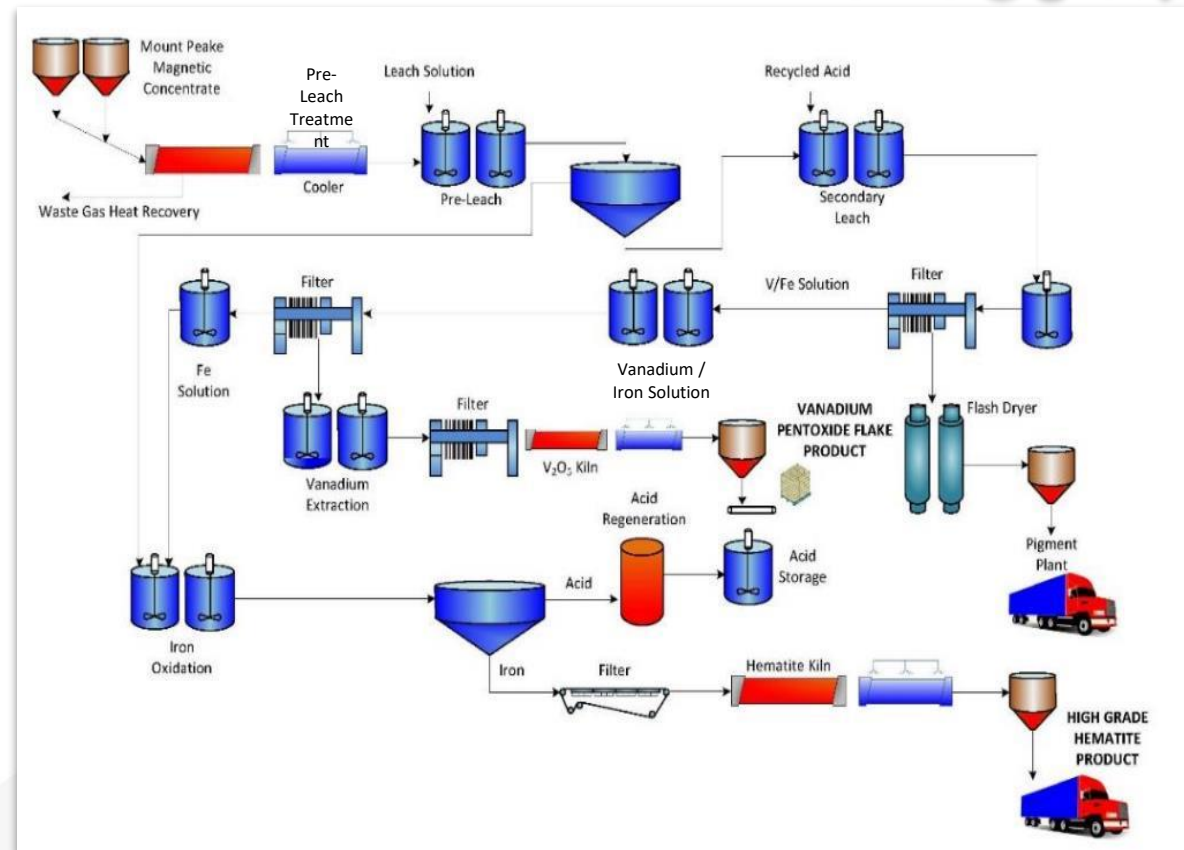
TIVAN[®] Technology

“3RD GENERATION” OF MINERAL PROCESSING TECHNOLOGY



	Old Tech Gen#1	Improved Processes Gen#2	TIVAN [®] Gen#3
Description	Only able to recover vanadium, disposing titanium and iron value	Recover vanadium; achieve some value through saleable combined titanium / iron co-product	Fully separate and produce three high quality products
Product quality	✓	✓✓	✓✓✓
ESG	✓	✓✓	✓✓✓
Revenue diversification	✓	✓✓	✓✓✓
OPEX competitive	✓	✓✓	✓✓
CAPEX intensity	✓	✓✓	✓✓

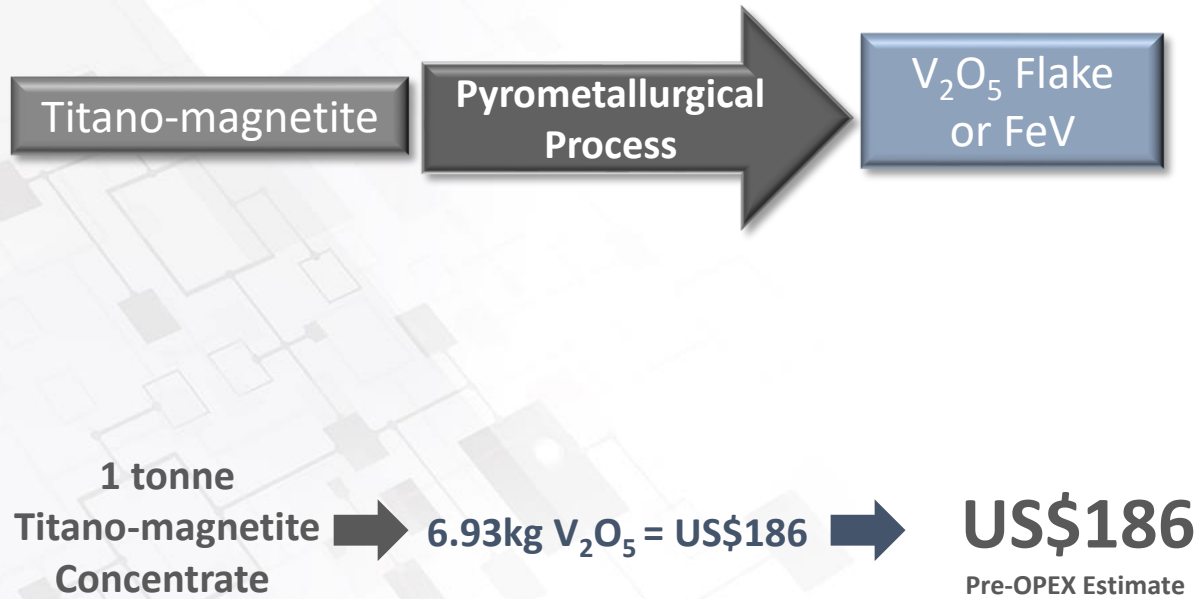
TIVAN[®] FLOWSHEET



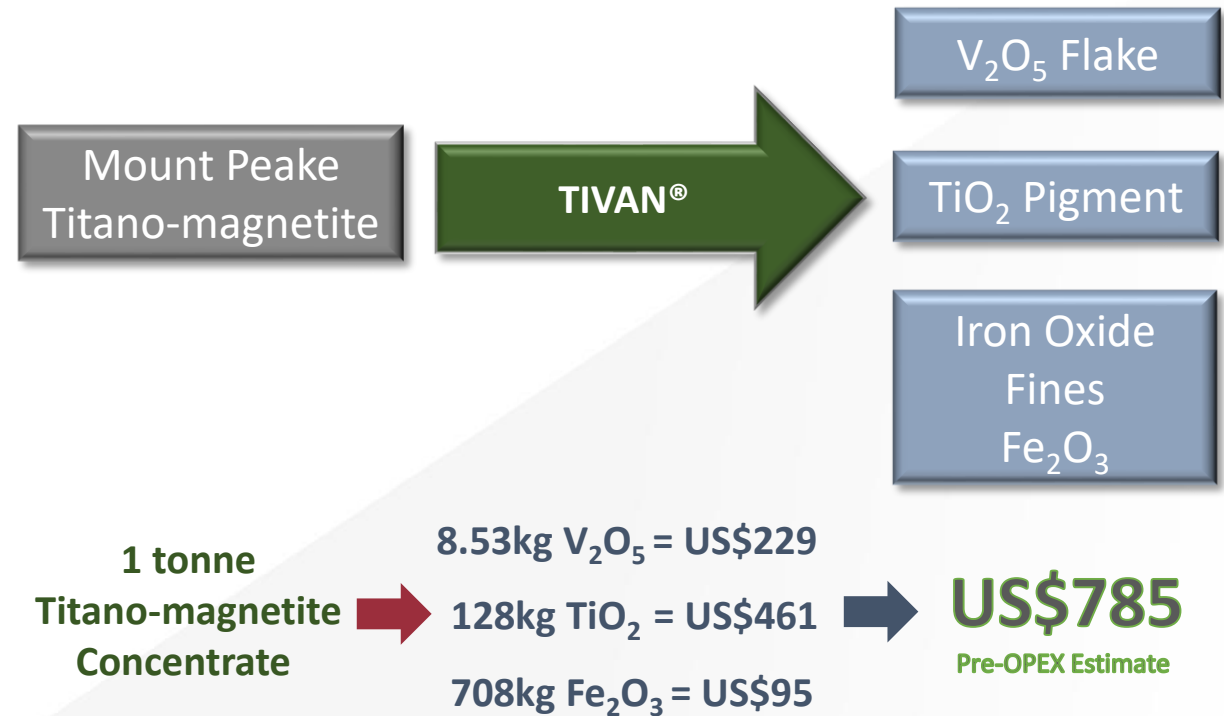
TIVAN[®] Processing Technology Advantage



CONVENTIONAL PROCESS = 1 PRODUCT



TIVAN[®] PROCESS = 3 PRODUCTS

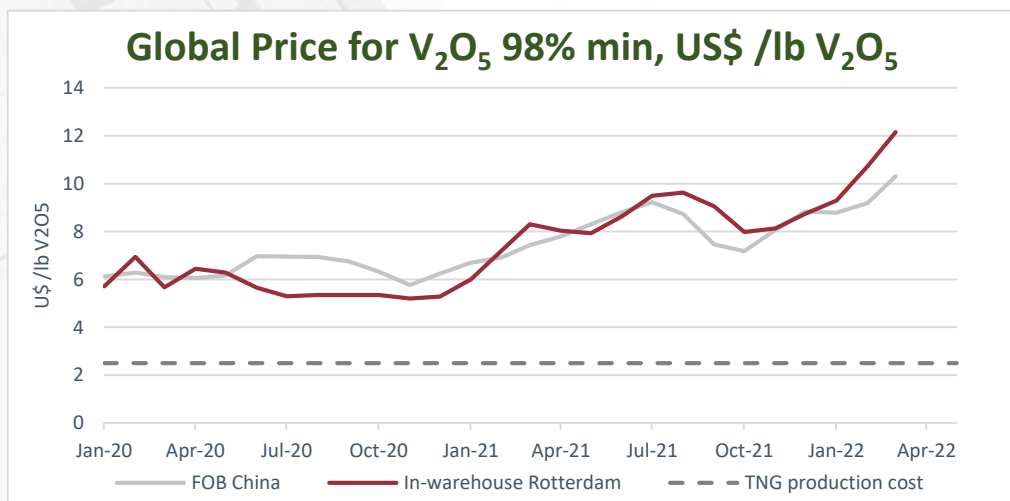
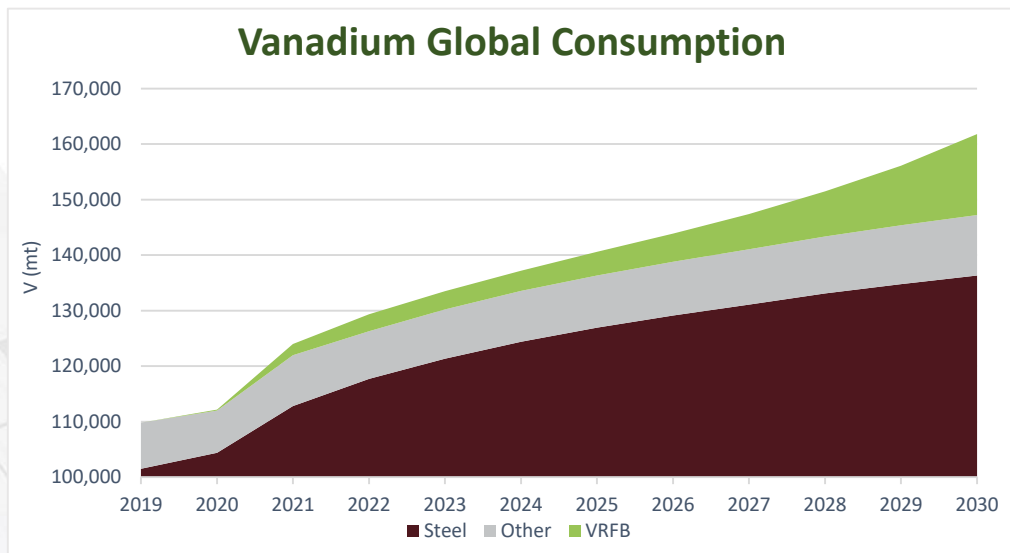


Notes:

The TNG numbers are based on the most recently information provided by SMS. The pyrometallurgy number relies on the feed concentrate having the same composition as the TNG concentrate. This is required for this kind of comparison. Product price assumptions as at 31 March 2022: US\$26,808/tonne for V₂O₅ (US\$12.16/lb), US\$3,600.00/t TiO₂ pigment and US\$135.00/tonne for high grade Fe₂O₃

Find out more at tngltd.com.au

Vanadium Market – Overview



Top producers



Top consumers

Country	Tonnes
China	62,000
Europe	12,000
North America	10,000

Australia's Vanadium resources are the **3rd largest** in the world, accounting for **18 per cent** of world economic demonstrated resources but Australia's current production levels are **negligible**.

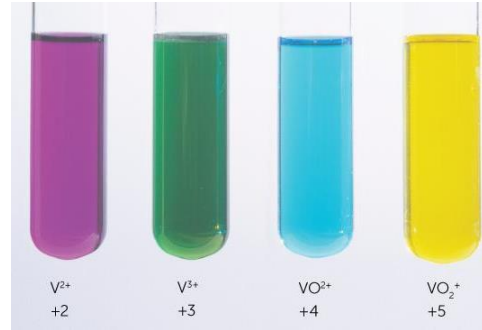
Image source: Office of the Chief Economist, Outlook for Selected Critical Minerals in Australia 2021 report

Current Vanadium Market Dynamics

LONG TERM DEMAND; MEDIUM TERM STRATEGIC SECURITY

➤ Vanadium is **GREEN!**

- Strengthening steel; so
- less steel needs to be used; *which means*
- greater efficiency in use of scarce natural resources; *and*
- steel production itself is emissions intensive so less steel used = less emissions = **good**



➤ Vanadium is also **MAGIC!**

- 4 different oxidation states (V²⁺, V³⁺, V⁴⁺, V⁵⁺)
- other green use is redox batteries – highest quality v needed; this is a large area of growth (see next slides)

➤ Vanadium's other important use area is in Defence

- Previously used in Tank armour; but not so much these days
- Currently **IRREPLACABLE** in high performance titanium vanadium alloys for aerospace applications
 - think fighter jet air frames and missiles.
 - Important in civilian aviation too
- This is why US has designated Vanadium a strategic metal since the cold war and keeps a strategic stockpile of it
- The US is a net importer of V
- Security of supply from like minded nations

SUPPLY

➤ Largest global supplier of Vanadium are:

- China
- Russia

➤ Not ideal from a strategic security of supply situation

- Australia – low political risk jurisdiction – strong global ally – significant vanadium reserves but negligible current production

Note: Russia also a large supplier of titanium

SO WHAT??

➤ Sanctions on Russia are likely not going anywhere soon....

➤ “Critical Minerals” sector has already seen massive industry tailwinds due to the macro decarbonisation / energy transition thematic – Vanadium benefits from this

➤ Additional security of supply issues for V

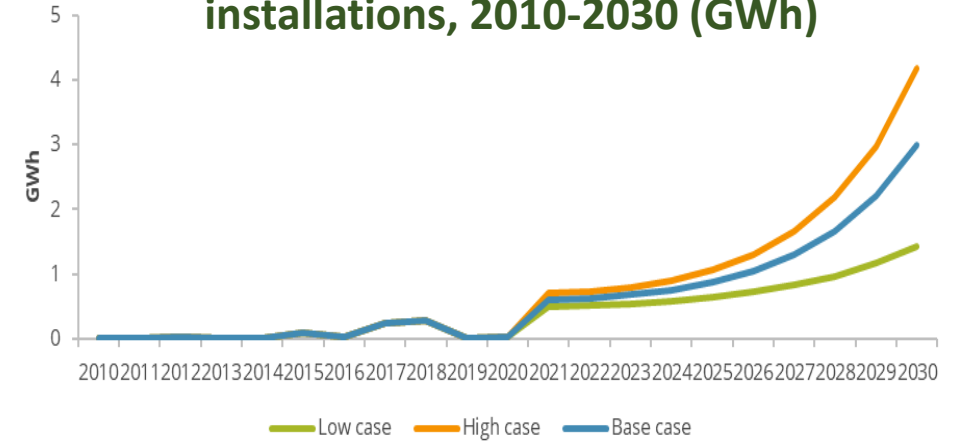
➤ Strong support for new western V projects to get up

➤ Significant area of focus for western governments – Strategic alliance between Australia and Korea on Critical Minerals, similar with USA

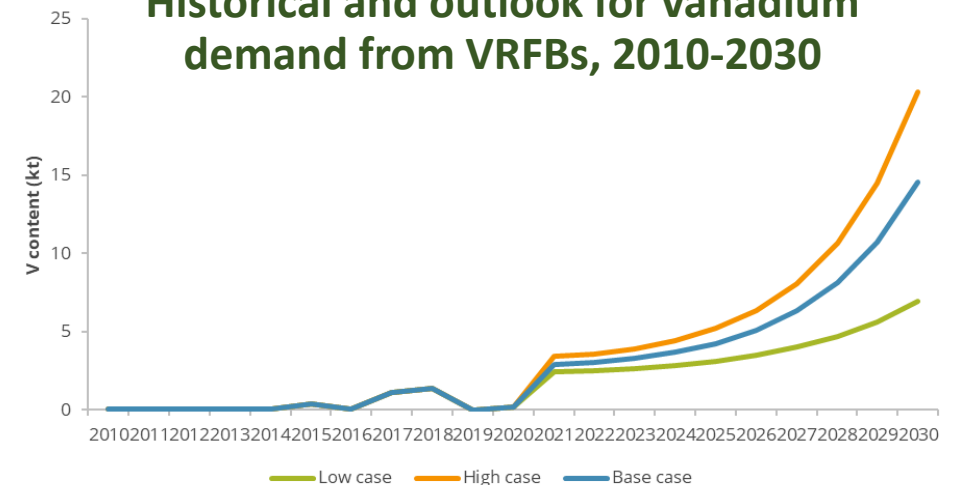
V₂O₅ for Vanadium Redox Flow Battery (VRFB)

- ✓ VRFB requires the highest V purity which can only be produced from the Primary Mine Output, with 20,434mt produced in 2020
- ✓ TNG plans to produce high purity V₂O₅ (99.6%)
- ✓ V constitutes 30-50% of the cost of VRFB
- ✓ Average estimated for 1kWh (April 2022): 9kg V₂O₅ or 5.040kg V making 55L VE (1MWh needs approximately 55,000 litres VE)
- ✓ 1 kg of V₂O₅ will produce approximately 6 litres of VE with approximately 2 mol/litre of V
- ✓ In 2030, the use of V₂O₅ for VRB will represent 10% of global use compared to 1% today

Historical and outlook for VRFB installations, 2010-2030 (GWh)



Historical and outlook for vanadium demand from VRFBs, 2010-2030



VRFB – A Sustainable Energy Storage Battery



TNG is a member of Vanitec, the Vanadium International Technical Committee

Carbon savings:

A VRFB produces less cradle-to-grave CO2 emissions than other technologies, with savings ranging from 27 to 37%, when compared to multiple lithium ion technologies.

Low carbon footprint:

When coupled to renewable energy technologies, the carbon footprint of a VRFB is much smaller than a typical lithium-ion battery system.

Reusability:

100% of the vanadium in vanadium electrolyte is re-usable upon decommissioning of a VRFB can be fully redeployed into another VRFB or converted into vanadium oxides for use in other applications, such as steel alloys.

Recyclability:

The recycling and conversion of liquid electrolyte costs a fraction of the vanadium's market value which guarantees that the chemistry in the VRFB will be recycled as opposed to being discarded.

Long life:

VRFB systems have a long service life, when compared to lithium ion technologies, with over 20,000 charge/discharge cycles and an operational life that can exceed 20 years.

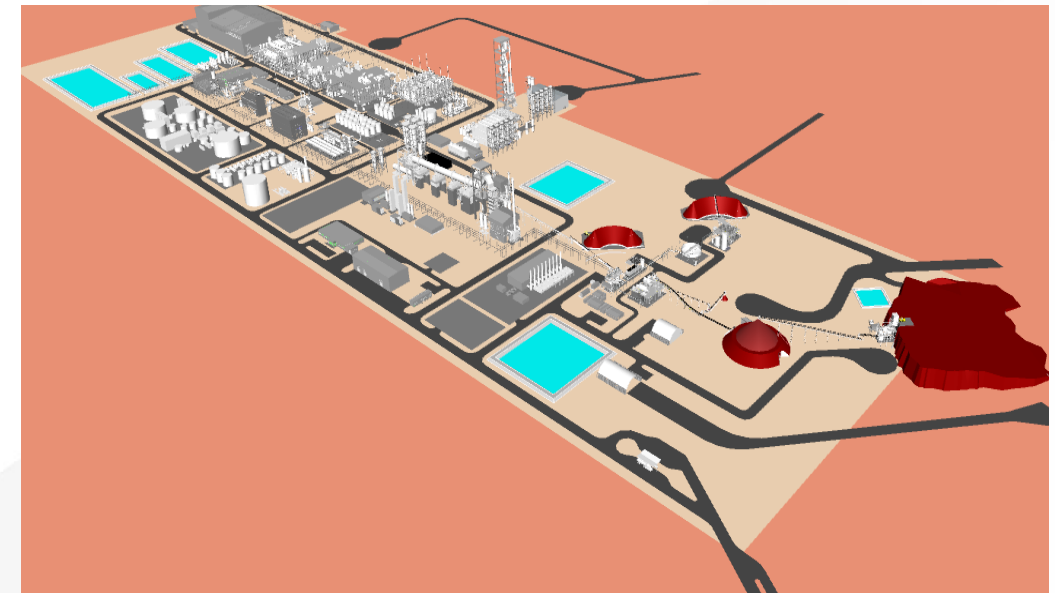


The Vanadium Redox Flow Battery (VRFB) is a sustainable energy storage battery that uses a vanadium electrolyte liquid solution to store and release large amounts of energy over long periods of time

VRFBs: A true circular economy technology

Project Development

- Clough completed an integrated layout at Mount Peake Mine Site
- Clough working with TNG's Project Development team and SMS to:
 - Capitalise on improved constructability, operability and maintenance for the Project
 - Progress value engineering and design and deliver an updated capital cost
- Revised Project Execution Strategy:
 - SMS to provide a commercial and technical proposal for engineering and procurement for the delivery of the key TIVAN® Processing Plant at the Mount Peake Mine Site
 - Discussions with Australian-based engineering and construction companies for the delivery of both processing plants and NPI, early contractor involvement strategies, BOO/T planning, and the project management structure



The new Mount Peake Project integrated operation layout (south-east view) prepared by Clough based on the deliverables prepared under the FEED study completed by SMS Group

Mount Peake Project Readiness



REGULATORY

- ✓ Federal & NT Environmental approval received for the Mine Site
- ✓ Mining Management Plan Review submitted
- ✓ Environmental Impact Assessment process for the TIVAN® Processing Facility underway



TENURE & SOCIAL LICENCE TO OPERATE

- ✓ Native Title Agreement executed with Traditional Owners; liaison on amendments underway
- ✓ Mineral Leases granted
- ✓ Federal and NT Major Project Status



TECHNICAL

- ✓ FEED study for the Beneficiation Plant and TIVAN® Processing Facility completed by SMS group
- ✓ Value engineering and design for the integrated single site being undertaken by Clough Engineers

COMMERCIAL



- ✓ Off-take agreements in place for 100% of all TNG products
- ✓ Financiers mandated and running process



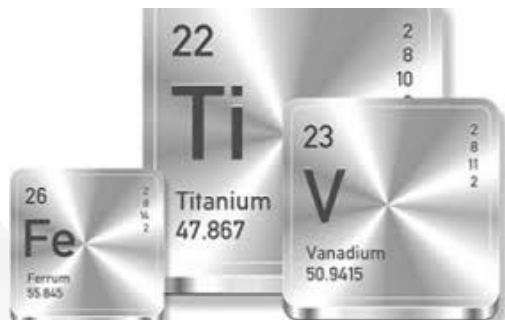
PROJECT DEBT

- KfW IPEX-BANK mandated to raise up to US\$600m (AU\$850m)
 - ✓ Specialist ECA Financier and commercial lender
 - ✓ Extensive expertise in Metals & Mining
- Export credit finance portion; priority:
 - ✓ German (SMS content),
 - ✓ Korean (vanadium offtake, critical minerals partnership)
 - ✓ Australian
- Availability of green / energy transition centric loans and funds
- Australian government concessional lending bodies
 - ✓ Critical Minerals sector is a strategic area of focus

PROJECT EQUITY

- Strong history of support from ASX for pre-development activities
- Multiple sources of development equity being progressed:
 - ✓ Strategic equity investors – significant interest in new critical minerals projects to ensure future supply
 - ✓ Offtake partners
 - ✓ ESG / Energy transition funds / investors
 - ✓ ASX portion through existing broking relationships
 - ✓ Potential for various government grant funds
 - Significant support to the critical minerals sector

Next Steps



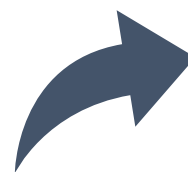
PERMITTING & APPROVALS

- Lodge revised environmental assessment for the Mine Site
- Review mining management plan
- Liaison underway with the CLC on revisions to Native Title Agreement



CONCLUDE ENGINEERING & PRE-DEVELOPMENT ACTIVITIES

- Complete review of the Mount Peake Project Execution Model
- Complete optimised layout for integrated operation
- Value engineering process to optimise CAPEX
- Appointment of EPC contractors
- Establish full Project Development Team



PROJECT FINANCING

- Finalise debt & equity finance structure
- TNG Board Final Investment Decision

DEVELOPMENT



TNG
LIMITED

THANK YOU



DEVELOPING MOUNT PEAKE A CRITICAL MINERALS PROJECT IN NORTHERN AUSTRALIA

ASX: TNG