

Shareholder Newsletter

December 2020

TNG

FROM THE MD'S DESK

Dear shareholder,

As we approach the end of what has been an extremely challenging year globally due to the novel coronavirus pandemic, I am writing to sincerely thank you for your continued support and patience as we strive to develop TNG's world-class strategic metals project at Mount Peake.

I am very pleased with the substantial progress that has been achieved at the Mount Peake Project during 2020, despite COVID-19 restrictions imposed worldwide.

Together with our partner SMS group, we have been able to progress the Front-End Engineering and Design study, which is now in its final stages, and to complete pre-qualification tenders for the majority of the Non-Process Infrastructure work streams, with contractors short-listed.

We have also executed binding life-of-mine off-take agreements with Vimson Group for 100% of high-purity iron ore and with GUNVOR for the remaining 40% of vanadium pentoxide production, completing all of our off-take agreements. This is a major achievement considering the current challenging global market environment and creates a robust commercial foundation to advance the Mount Peake Project financing and development strategy.

As we move towards the final stages of the FEED study, our project management team has been developing a Project Execution Plan which outlines the overall contracting strategies available to TNG in delivering the total scope of the Mount Peake Project.

While the important FEED and NPI works progress to finalisation, the Board has decided to advance TNG's green energy strategy with the establishment of TNG Energy.

TNG Energy is a green energy-focused subsidiary established as part of the vertical integration strategy for Mount Peake and our vision of establishing TNG as a sustainable resources company capable of delivering maximum benefit to our shareholders.

As part of the green energy strategy, we have entered into a partnership with SMS group to develop a carbon-neutral hydrogen production technology to be applied to the TIVAN® process and also created a Vanadium Redox Flow Battery business unit, as the Company has previously produced a high-purity vanadium electrolyte for use in VRFBs from the vanadium pentoxide from Mount Peake.

We have also recently confirmed the technical viability of a customised wastewater treatment plant for the Darwin TIVAN® Processing Facility and we are now evaluating its inclusion in the Project design with the aim of developing a "zero liquid discharge" processing alternative to the direct liquid discharge that was originally planned for the DPF.

The evaluation of the WWTP forms part of the Company's ongoing commitment to optimising the Mount Peake Project in an environmentally responsible manner and is aligned with our green energy strategy.

In conclusion, I would like once again to thank you, our loyal shareholders, for your support and look forward to sharing in an exciting 2021 with all of you!

*Have a safe and happy holiday season!
I wish you a healthy and prosperous 2021.*



Paul Burton
Managing Director & CEO

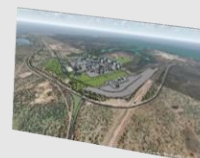


VIDEO

Check out the **3D Overview of the TIVAN® Processing Facility** on TNG's website at www.tngltd.com.au

SHAREHOLDERS QUESTIONS

If you have a question for TNG, we would love to hear from you! Send your enquiry to corporate@tngltd.com.au



TNG ENERGY

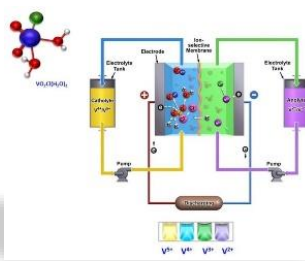
Environmentally Sustainable Resources



TNG Energy will focus on alternative low carbon technology for direct application to the Mount Peake Project and also available for licencing, through the launch of a Vanadium Redox Flow Battery business unit for future energy storage and partnership with SMS group for the development of a Hydrogen Production Technology.

VANADIUM REDOX FLOW BATTERY (VRFB) BUSINESS UNIT

- TNG's aim is to produce its own vanadium electrolyte and become a commercial supplier of VRFBs
- TNG has previously produced high-purity vanadium electrolyte from vanadium pentoxide produced in pilot scale testwork for Mount Peake
- TNG is progressing a VRFB study to confirm the commercial, marketing and technical requirements for the business
- The VRFB is an energy storage flow battery suitable for large-scale energy storage
- VRFBs can replace diesel power generation at remote sites
- VRFBs utilise high-purity vanadium electrolyte to store energy and support renewable power generation from sources including solar and wind
- VRFBs are inherently more stable and fire safe than lithium-ion batteries
- The electrolyte can be re-used ad infinitum, and the vanadium in the electrolyte can be recovered and re-used in a myriad of other applications including as a strengthening alloy for steel, helping to manage cost.
- Over 100 VRFB installations globally with an estimated capacity of over 209,800 kWh of energy
- Use of vanadium in energy storage applications has doubled to 2.1% of the global vanadium consumption in recent years



HYDROGEN PRODUCTION TECHNOLOGY

- TNG & SMS entered into a partner development agreement to develop a low CO₂ technology.
- The technology will be developed to produce green hydrogen from various renewable, secondary or fossil hydrocarbon sources by means of plasma pyrolysis, utilising green electrical energy.
- Substantial quantities of CO₂-emissions could be eliminated as a result of the introduction of green hydrogen as the reduction agent in the TIVAN® Process.
- The electrical energy consumption of the new process is assumed to be in the range of 15-18kWh of electrical energy per kilogram of hydrogen, which is only a third of incumbent electrolysis processes.
- A by-product of this process is anticipated to be highly-pure carbon black powder and SMS will investigate in parallel the possibilities to produce graphene and/or carbon nanotubes from this powder.
- SMS will coordinate all development activities with a focus on the application to TNG's TIVAN® processing plant.
- Under this agreement, TNG will receive a royalty on all equipment that SMS sells globally.



NEWS ON RENEWABLE ENERGY

New era for ARENA

The Australian Government has committed \$1.62 billion towards ARENA as part of a \$1.9 billion package in support of 'low emission' technologies over the next decade.



Renewable energy in Australia — a phenomenal success story

Driven initially by the establishment of a renewable energy target, followed by the dramatic drop in the price of solar and wind technology and ...

Work begins on German-Australian 'hydrogen bridge'

Australia and Germany have officially started a joint-feasibility study on green hydrogen production and trade, or what the German Federal Minister of Research has described as a "hydrogen bridge."

