

## TNG TO PROGRESS DEVELOPMENT OF MOUNT PEAKE PROJECT WITH A CONSOLIDATED AND INTEGRATED PROCESSING FACILITY AT THE MINE SITE

### *STRATEGIC DECISION FOR OPTIMISED DEVELOPMENT OF THE MOUNT PEAKE PROJECT*

#### Key Points

- TNG has resolved to progress an alternative site for the downstream TIVAN® Processing Facility (“TPF”) following a detailed assessment of alternative locations.
- The preferred alternative is an integrated and consolidated, single mining and processing operation within the Company’s existing Mining Leases at the Mount Peake Mine Site (“Mine Site”), located 235km north-west of Alice Springs in the Northern Territory.
- Initial evaluation by TNG and the SMS group indicates that the vast majority of the deliverables from the recently completed Front-End Engineering and Design (“FEED”) study for the TPF could be applied at the Mount Peake Mine Site location with only minor modifications.
- The key benefits of a fully-integrated operation are expected to include:
  - consolidation of common non-process infrastructure;
  - reduction in construction requirements, with the Mine Site being located in a non-cyclonic zone;
  - reduction in solid waste and tailings disposal handling costs;
  - ability to optimise processing layout and simplify commissioning at one location; and,
  - an expected lower-risk final permitting process.
- The Company’s Mining Lease (“ML”) for the Mine Site already allows for mineral processing activities and the ML area is sufficient to accommodate a fully-integrated operation.
- TNG has briefed its Project financiers and advisors who have indicated their continued support.
- TNG has commenced discussions with the Central Land Council on an enhanced project at the Mine Site.
- The Company has also briefed both the Northern Territory Government (“NTG”) and the Northern Territory Environment Protection Agency to progress final permitting and approvals.
- As part of initial discussions, the NT EPA has provided TNG with a roadmap for the environmental approval process for the Mine Site, which the Company notes has a higher degree of certainty and is potentially shorter than the current requirement associated with the Darwin site.
- The consolidated operation will remain subject to various regulatory approvals, final permitting and TNG Board approval.
- In parallel, TNG is also progressing discussions with the NTG to utilise the existing land at Middle Arm Precinct reserved for TNG for the potential development of a green hydrogen production facility under the Company’s joint venture with green hydrogen group AGV Energy (see ASX announcement of 3 Sep 2021).

Australian resource and mineral processing technology company TNG Limited (ASX: TNG) (“TNG” or the “Company”) is pleased to advise that it has resolved to progress the development of its flagship Mount Peake Vanadium-Titanium-Iron project (“Mount Peake Project” or “Project”) with a fully-integrated mining and processing operation within its existing Mining Leases at the Mount Peake mine site (“Mine Site”), located 235km north-west of Alice Springs in the Northern Territory.

The strategic selection of the Mine Site for the downstream TIVAN® Processing Facility (“TPF”) follows the completion of a detailed review of the Middle Arm site in Darwin and alternative sites (as foreshadowed in its ASX announcement of 31 August 2021). The Company undertook the detailed assessment of various alternatives sites for the TPF following the receipt of the “*Direction to Provide Additional Information*” on the Supplement to the Draft Environment Impact Statement (“EIS”) for the Darwin TPF from the Northern Territory Environment Protection Authority (“NT EPA”) (see ASX announcement 20 May 2021).

Additionally, and as part of the detailed review of alternative sites, the NT EPA has provided TNG with a clear roadmap for the environmental approval process for the alternatives sites which was then added to the final strategic assessment.

The strategic assessment review included quantification of the potential operational, regulatory and commercial risks of having a consolidated and integrated Mine Site operation compared with a standalone TPF in Darwin, and was prepared by the Company’s Internal Steering Committee comprising of TNG’s in house Project Director’s team, Project Engineers and supported by external consultants.

**TNG Limited’s Managing Director & CEO, Mr Paul Burton commented:**

*“This is a very significant milestone for TNG and a significant development for our shareholders and all key stakeholders associated with the Mount Peake Project. Following the detailed review of alternative locations for the TIVAN™ Processing Facility outlined in recent announcements and taking into consideration the factors outlined above including energy supply and water processing, we intend to progress an integrated and consolidated plan with the TPF to be evaluated at the Mount Peake mine site.*”

*“This is the most important change to the configuration of the Mount Peake Project since the completion of the Feasibility Study and, importantly, it gives certainty to all of our key stakeholders, our project financiers, our shareholders and everyone else who has followed our journey to date. The co-location of the TPF at the Mine Site delivers a host of strategic and logistical benefits and, importantly, significantly de-risks our development pathway moving forward.*”

*“We are now working with our key engineering and contracting partners to develop an updated project delivery schedule and to move ahead with permitting as quickly as possible. We look forward to providing our shareholders with further updates in the near future.”*

**Northern Territory Minister for Mining and Industry, Hon Nicole Manison, noted:**

*“The Territory Labor Government supports the development of new critical minerals projects, including TNG Limited’s Mount Peake Project which is going to be great for local jobs, local businesses and the Territory economy.*”

*“This exciting project is emerging as one of the world’s largest strategic metals projects, located right here in the Territory and it is already attracting private investment and strengthening our economy.*”

*“Products using vanadium, titanium and iron are globally in great demand and this project will see the Territory capturing more value from these resources, which will create jobs for Territorians and boost economic opportunities for all of Australia.*”

*“Vanadium is a new economy mineral that will transform the Territory’s future as a global resources supplier.”*

**NT EPA’s Chairperson, Dr Paul Vogel, commented:**

*“The NT EPA acknowledges TNG’s decision to fully integrate the Mount Peake Project at the mine site and is looking forward to working closely with the Company to resolve the environmental approval process in an efficient and timely manner.”*

## Background on Site Selection for the TPF

An integrated mine-beneficiation-processing facility was originally contemplated at the Mount Peake Mine Site in the initial Project Scoping Study, however at that time gas and water availability were considered inadequate to meet the Project's requirements.

As a result, a number of other sites were assessed for the location of the TPF – including Alice Springs, Tennant Creek, Pine Creek and Darwin. The Company also considered an offshore site in Kuantan, Malaysia, and a site near Whyalla in South Australia.

The Northern Territory Government ("NTG") subsequently provided a large site in the Middle Arm Precinct, zoned for Heavy Industry, that TNG considered suitable and this was reserved for the Company in 2015. TNG ultimately selected this site as the proposed location for the TPF and, since that time, has been progressing the terms to secure site tenure with the successive Northern Territory Governments, and environmental approvals.

### ***Water availability***

During the Front-End Engineering and Design ("FEED") study undertaken by SMS group ("SMS"), and following the receipt of EIS comments regarding water usage, the Company made the decision to incorporate a wastewater recycling facility to materially reduce its water requirement for processing (by ~65%) (see ASX Announcement of 9 December 2020).

### ***Gas availability***

In addition, as part of development of the Company's energy supply strategy, an independent review by a Gas expert established that there is expected to be sufficient gas available at the Mine Site using the existing Darwin-to-Alice Springs gas pipeline.

Importantly, these recent developments on water and gas supply, when factored into the site assessment, allowed the company to overcome some of the key criteria in the original decision of not establishing the TPF at the Mount Peake Mine Site.

These, together with the Direction received from the NT EPA, contributed to the detailed review and re-evaluation of an integrated and consolidated mining and processing facility at the Mine Site during 2021.

### ***Regulatory approvals***

As part of the review and re-evaluation, TNG also completed an updated site assessment of Project risk which concluded that the Darwin site presents a potentially higher level of uncertainty in relation to securing regulatory approvals and permitting in a timely manner.

## Key Benefits Expected from the Integrated Project at Mount Peake Mine Site

An integrated, consolidated single-site mining and processing operation at the Mine Site is expected to deliver the following key benefits:

- Significant decrease in construction requirements related to concrete and steel structure, cladding and construction, as the Mine Site is located in a non-cyclonic zone with superior geotechnical conditions.
- Significant reduction in solid waste and tailings disposal handling expected to reduce operational requirements.
- A reduction in infrastructure requirements of the common non-process infrastructure required as a result of the consolidation, including power supply, offices, utilities and workshops.
- Simplified commissioning process at one location.
- Simplified take-or-pay arrangements for gas and power.
- Less inclement weather downtime resulting in improved productivity and schedule savings during both construction and operation.
- A reduction in double-handling with the ability to feed the magnetite concentrate from Beneficiation Plant directly into the TPF.

- Access to both Darwin and Adelaide Ports for shipping of final products rather than being restricted to Darwin Port only.
- Enhanced opportunities for indigenous people and local businesses and communities of the Alice Springs region.

The consolidation of the TPF at the Mine Site may potentially create additional infrastructure and operational requirements related to accommodation, and transport of reagents and products; however, the Company expects that the significant benefits of a single-site mining and processing operation will offset any additional requirements.

### **Mining Lease and Mine Site Layout**

The Mine Site has four Mining Leases (“ML”) in place which were granted in November 2018. The Mine Site tenure covers approximately 2,056 hectares.

ML 29855 (1,460 Ha) covers the processing area, integrated waste landform and ancillary infrastructure, and is of sufficient size to facilitate the consolidation plan – mining activities and waste storage, the Beneficiation Plant, the TPF and non-process infrastructure.

### **FEED Study and Non-Process Infrastructure (“NPI”)**

TNG’s Project Team has worked with SMS group to assess any potential impacts on the engineering and design of the TPF as a result of the integrated Project, with initial evaluation indicating that the vast majority of the deliverables from the FEED study can be applied to the new location.

SMS has given their full support to the consolidation and integration plan.

The Company is working with SMS to confirm and finalise the scope of the updates required, which will be progressed together with any agreed value engineering and technical optimisations identified during the review of the FEED study currently underway.

The Company has previously completed pre-qualification tendering and short-listing of proponents for the delivery of the NPI required at both the Darwin TPF and the Mine Site. The final phase of tendering will be updated to accommodate the requirements of the integration and consolidation, with short-listed proponents to be invited to provide updated proposals as required.

### **Next Steps**

The next steps include:

#### ***Project Execution Model***

The Company has advanced discussions with tier-1 Australian engineering groups on the potential to work alongside SMS as a major contractor for the development of the Project as a single-site mining and processing operation during the Engineering, Procurement and Construction (“EPC”) phase.

#### **Stakeholder Liaison**

Discussions have commenced with key stakeholders, including the NT EPA and the Central Land Council (“CLC”), on the requirements for any permitting changes driven by the consolidation.

As part of the initial discussions, the NT EPA has provided TNG with a clear roadmap for the environmental approval process for the Mine Site, which has then been assessed by the Company’s environmental consultant, Animal Plant Mineral (“APM”). APM fully supports the integrated Project and has been engaged to immediately commence any environmental work required.

The Company notes that this roadmap has a higher degree of certainty and is potentially shorter than the current requirement associated with the Darwin site.

TNG is working closely with the CLC to provide an update to the native title holders on the consolidation plans.

The Company will also be providing updates to the investor community via an enhanced investor relations program.

**Project financing**

Both KfW IPEX-Bank, the Company's mandated lead debt arranger and advisor, and KPMG Corporate Finance, the Company's mandated financial advisor, have given their full support to the Company's new integrated strategy and remain committed to progressing project financing for development.

**Mount Peake Project schedule**

The Company is now working with all key contractors and groups on an updated detailed Project schedule for the consolidation plan. Initial indications are that the Company expects to undertake and complete all workstreams for the integration at the Mine Site within the next 12 months. The Company notes that this timeframe is similar to the expected timeframe for completion of works and approvals had the TPF remained in Darwin.

**Green Hydrogen Strategy**

As announced on 3 September 2021, the Company executed a Project Development Agreement with Malaysian-based AGV Energy & Technology Sdn Bhd ("AGV Energy") to exclusively develop green hydrogen projects in Australia under a joint venture arrangement using the "HySustain" production technology.

As a result of the integration of the TPF at the Mine Site, TNG is now progressing discussions with the NTG on the possible use of the existing land at Middle Arm Precinct reserved for the Company for the potential development of a green hydrogen production facility under the joint venture.

Authorised on behalf of the Board by:

**Paul E Burton**  
**Managing Director & CEO**

30 September 2021

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## **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.

## **Forward-Looking Statements**

This report has been prepared by TNG Limited. This report 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.

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## **Production Targets and Financial Information**

Information in relation to Mount Peake production targets and financial information included in this report is extracted from an ASX Announcement dated 11 September 2019 called "Optimised Delivery Strategy for Mount Peake" available on the Company's website on [www.tngltd.com.au](http://www.tngltd.com.au). The Company confirms that all material assumptions underpinning the production target and financial information set out in the announcement released on 11 September 2019 continue to apply and have not materially changed.