

Vanitec members to highlight the critical role of vanadium at 26th World Mining Congress in Brisbane, Australia

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JOHANNESBURG, 14 JUNE 2023 – The need to mitigate climate change while securing a more sustainable global future will require a very substantial increase in supply of many critical materials. Vanadium is one such critical mineral of strategic importance that is being prioritised by governments and the private sector around the world for its role in global decarbonisation through its applications in both the steel and energy sectors.

The growing demand for vanadium stems from two main drivers. Firstly, the need to store and use renewable energy sources continues to increase as the world transitions to a greener economy. Secondly, population growth is driving demand for high-strength steel, which is a critical component of urban expansion and vehicle manufacturing.

Vanadium is a critical material in both sectors. In the energy storage sector, it is used to manufacture electrolyte for vanadium redox flow batteries, while in the steel sector, it is used to increase the strength, toughness, and wear resistance of steel.

Vanadium's significance in the steel sector is well-known, representing nearly 90% of its demand. However, a [2022 study](#) by market intelligence and advisory firm, Guidehouse Insights, forecast that global annual VRFB deployments are forecast to reach approximately 32.8 GWh per annum by 2031, further highlighting the expanding use of vanadium in energy storage.

The strategic importance of vanadium in Australia

Australian members of [Vanitec](#), the global not-for-profit organization representing the vanadium industry, will participate in the 26th World Mining Congress (WMC 2023) in Brisbane, Australia between 26-29 June. Their presence aims to highlight the significance of vanadium to the global mining sector.

With an estimated 7.4 million tons of vanadium reserves¹, Australia holds the second-largest vanadium resource in the world behind China, with other significant volumes in Russia and South Africa.

¹ According to the United States Geological Survey, Mineral Commodity Summaries, January 2023

There are notable vanadium exploration and development opportunities in Australia that will drive vanadium supply in the future including Atlantic Ltd., Australian Vanadium, Neometals, QEM Limited, Technology Metals Australia, Tivan, and Vanadium Resources. While none of those projects are yet in primary production, QEM Limited has secured a vanadium-rich Queensland industrial waste stream for conversion to VRRB battery electrolyte before QEM and its Australian counterparts are in primary production. In fact, the Queensland Government has already allocated \$75M in funding for the project which is expected to commence operations by the first half of 2025.

Recognising the strategic importance of vanadium, the Australian government has also classified vanadium as a critical mineral and has prioritised its development and inclusion in critical minerals policies. The Australian Critical Minerals Strategy and associated initiatives aim to support domestic vanadium production, enhance supply chain resilience, and foster innovation in downstream industries.

Under the theme of *“Resourcing Tomorrow: Creating Value for Society”*, WMC 2023 will examine the world’s future economic and social dependence on resources, considering major issues like environmental sustainability, climate change, digital transformation, and disruptive technologies.

As vanadium continues to gain prominence as a global critical mineral, Australia stands poised to emerge as an important vanadium producer and energy storage technology leader. The collaborative efforts of government, producers, original equipment manufacturers and research institutions will be crucial in fostering innovation in the vanadium supply chain.

To learn more about vanadium and its sustainable applications, visit www.vanitec.co.za for more information.

About Vanitec

Vanitec, the not-for-profit international global member organisation, brings together representatives of companies and organisations involved in the mining, processing, manufacture, research and use of vanadium and vanadium-containing products. The objective of Vanitec is to promote the use of vanadium bearing materials, and thereby to increase the consumption of vanadium.

¹ According to the United States Geological Survey, Mineral Commodity Summaries, January 2023