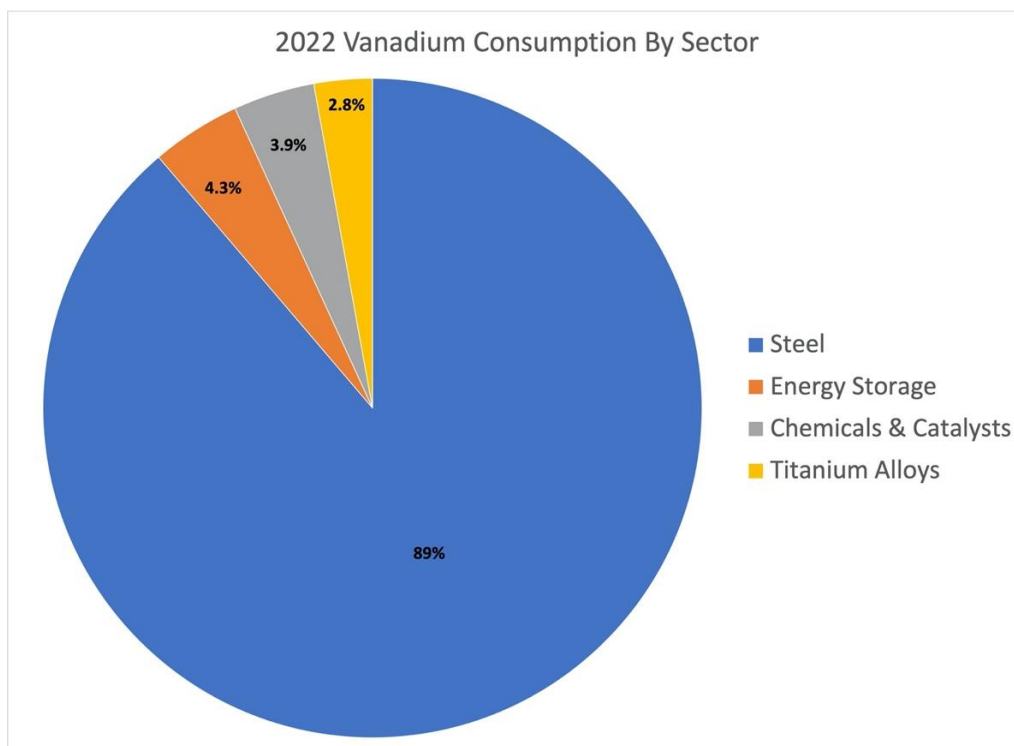


Energy storage now the second largest consumer of vanadium: Vanitec

FOR IMMEDIATE RELEASE

JOHANNESBURG, 01 JUNE 2023 - According to statistics from Vanitec, the global not-for-profit vanadium industry organisation, energy storage became the second-largest consumer of vanadium in 2022 for the first time, surpassing chemicals & catalysts, and titanium alloys. Steel continues to be the largest consumer of vanadium, however, this shift in the use of vanadium in energy storage highlights that the transition to a more sustainable and resilient energy future is well on its way.

The increased use of vanadium in energy storage is driven by increased consumption of vanadium in Vanadium Redox Flow Batteries (VRFBs) – a proven and rapidly growing large-scale energy storage technology that can store large amounts of energy produced from renewable sources to provide on-demand, round-the-clock, carbon-free power.



Though vanadium use in energy storage is small as a percentage of global vanadium consumption at 4.3%, its growth from 2021 to 2022 marks a 42% year-on-year increase¹. This

¹ This is according to global vanadium consumption estimates for 2022, which have been consolidated by Vanitec.

² In 2022, independent analysis by market intelligence and advisory firm, Guidehouse Insights, forecast that global annual VRFB deployments would reach approximately 32.8 GWh per annum by 2031. This represents a compound annual growth rate (CAGR) of 41% over the forecasted period.

growth reflects the recognition of vanadium's critical role in the energy storage market and aligns with market forecasters, such as Guidehouse Insights.²

While it is difficult to predict the exact growth trajectory of vanadium in energy storage applications over the next decade, based on historical vanadium consumption trends and external demand forecasts, vanadium consumption will continue to grow in the coming years because of its use in energy storage applications including VRFBs, according to Vanitec CEO John Hilbert.

Governments worldwide are increasingly acknowledging the importance of energy storage by implementing policies, incentives, and research initiatives to support its development and adoption. Vanadium has been classified as a critical mineral by several countries, including the European Union, the United States, Canada, Australia, Japan, Brazil, South Africa, and the United Kingdom.

China has shown strong policy support for VRFBs, while Australia, Canada, and the United States have also started to recognise the significance of vanadium and vanadium-based storage technology through their policies and investments. VRFB installations and supply chain activities are predominantly concentrated in China, although smaller installations and manufacturing activities are taking place in various regions globally, states Mikhail Nikomarov, Chairman of the Vanitec Energy Storage Committee (ESC) and CEO of Bushveld Energy.

These developments underscore the growing importance of vanadium in energy storage applications, particularly VRFBs, and its potential role in supporting the transition to a sustainable and resilient energy future.

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