



MW-class flow battery





Overview

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Source: Global Flow Battery Energy Storage WeChat, 2 January 2026 Phase 1 of the Yongren vanadium flow battery (VFB) energy storage project has been successfully completed and connected to the grid on 31 December 2025, marking a major milestone as the project transitions from construction into.

VRB Energy is a fast-growing, global clean technology innovator. We have developed the most reliable, longest-lasting vanadium flow battery in the world, with over 30 MWh of systems deployed and over 800,000 hours of demonstrated performance. VRB Energy is the technology leader in the field, and.

Aramco has developed a flow battery for solar storage in collaboration with Rongke Power - Credit: Rongke Power Aramco's MW-scale Iron-Vanadium flow battery is storing renewable solar energy to power gas operations in Saudi Arabia's extreme weather conditions Aramco has successfully commissioned an.

Aramco has successfully commissioned the world's first megawatt-scale Iron-Vanadium (Fe/V) flow battery. This battery is set to store solar energy to provide a backup power source for gas well operations. The flow battery system is based on Aramco's patented technology and developed in.

Flow batteries are notable for their scalability and long-duration energy storage capabilities, making them ideal for stationary applications that demand consistent and reliable power. Their unique design, which separates energy storage from power generation, provides flexibility and durability.

It is the first deployment globally of an iron-vanadium (Fe/V) flow battery as a backup solar power source for gas well operations. Located in Wa'ad Al-Shamal, in western Saudi Arabia, the 1-MW/hour flow battery system is based on Aramco's



patented technology and was developed in collaboration with.



MW-class flow battery

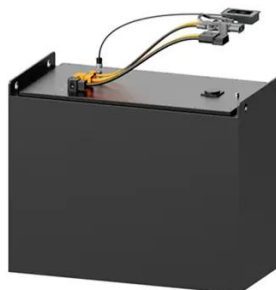


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The present invention relates to energy-storage battery technical fields, and in particular to a kind of long standby power of MW class flow battery and SOC measure integrated control

[Aramco Unveils World's First MW-Scale Iron...](#)

Aramco has commissioned the world's first megawatt-scale iron-vanadium flow battery to support gas production.



[Aramco: World First MW-Scale Flow Battery for Solar Storage](#)

This Fe/V flow battery is located in Wa'ad Al-Shamal, in western Saudi Arabia. It can deliver a MW/hour and support up to five wells across its projected 25 year lifespan.



[Aramco's World First in Sustainable Energy Storage](#)

Aramco has successfully commissioned an Iron-Vanadium (Fe/V) flow battery on a megawatt scale, set to enhance renewable ...



[About Flow Batteries , Battery Council International](#)

Flow batteries are notable for their scalability and long-duration energy storage capabilities, making them ideal for stationary applications that ...



[About Flow Batteries , Battery Council International](#)

Flow batteries are notable for their scalability and long-duration energy storage capabilities, making them ideal for stationary applications that demand consistent and reliable power. Their ...



[What's Behind China's Massive New Flow Battery ...](#)

Recently, the 500 MW/2 GWh Xinhua Wushi project, integrating lithium iron phosphate and vanadium flow batteries, began its ...



What's Behind China's Massive New Flow Battery Breakthrough?



Recently, the 500 MW/2 GWh Xinhua Wushi project, integrating lithium iron phosphate and vanadium flow batteries, began its first phase of operations. Once completed, it ...



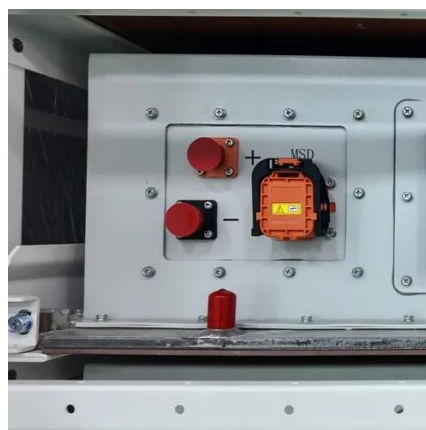
[VRB Energy Brochure Revisions MAY2019-VRB](#)

The standard VRB-ESS power module is rated at 250 kW for MW-Class systems. These power modules are combined with electrolyte storage tanks and power conversion systems (PCS) to ...



Aramco Unveils World's First MW-Scale Iron-Vanadium Flow Battery ...

Aramco has commissioned the world's first megawatt-scale iron-vanadium flow battery to support gas production.



[Aramco: World First MW-Scale Flow Battery for ...](#)

This Fe/V flow battery is located in Wa'ad Al-Shamal, in western Saudi Arabia. It can deliver a MW/hour and support up to five ...



[Flow batteries for energy storage , Enel Group](#)



A milestone in this revolution comes in the form of the new system inaugurated at the Son Orlandis photovoltaic power plant in Mallorca: it is the Enel Group's first vanadium flow battery ...



[Yongren 300MW/1,200MWh Vanadium Flow Battery Energy ...](#)

Phase 1 of the Yongren vanadium flow battery (VFB) energy storage project has been successfully completed and connected to the grid on 31 December 2025, marking a ...

World's first GWh-scale vanadium flow battery goes online in China

World's largest vanadium flow battery goes online in China with 1 GW solar plant The record-breaking battery will boost renewable energy use by over 230 million kWh a year.



[Aramco's World First in Sustainable Energy Storage](#)

Aramco has successfully commissioned an Iron-Vanadium (Fe/V) flow battery on a megawatt scale, set to enhance renewable energy storage by converting solar energy into a ...



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