



# Middle East All-vanadium Liquid Flow Battery





## Overview

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Dhahran, May 22, 2025, SPA -- Saudi Aramco has achieved a world-first milestone by successfully operating a megawatt-scale renewable energy storage system to support gas production operations. This marks the first global use of an iron-vanadium flow battery as a solar energy backup for gas well.

Saudi Arabian Oil Co. (Aramco) has claimed an industry breakthrough with the start-up of a renewable energy storage system designed to power natural gas activities. “It is the first deployment globally of an Iron-Vanadium (Fe/V) flow battery as a backup solar power source for gas well operations”.

Aramco has commissioned a megawatt-scale Iron-Vanadium flow battery to power gas production, marking a global renewable energy milestone. Aramco has achieved a global milestone by commissioning a megawatt-scale renewable energy storage system, using an Iron-Vanadium (Fe/V) flow battery to power gas.

Aramco, a leading integrated energy and chemicals company, has achieved a world-first by successfully commissioning a megawatt (MW)-scale renewable energy storage system to power gas production activities. It is the first deployment globally of an Iron-Vanadium (Fe/V) flow battery as a backup solar.

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.

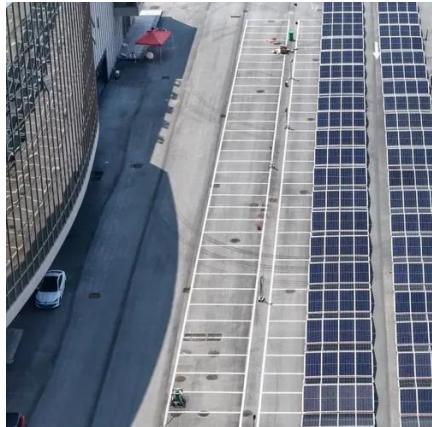
First-of-its-kind deployment: Aramco is the first company to commission a megawatt-scale Iron-Vanadium flow battery for renewable energy storage in gas operations. Strategic emissions reduction: The technology supports Aramco's goal



of achieving net-zero Scope 1 and 2 emissions across wholly owned.



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### [Aramco Deploys World-First Iron-Vanadium Flow ...](#)

The 1-MW/hour battery system--installed at Wa'ad Al-Shamal in western Saudi Arabia--will power up to five remote gas wells ...

#### **ognnews**

It is the first deployment globally of an Iron-Vanadium (Fe/V) flow battery as a backup solar power source for gas well operations.



### [Aramco launches renewable energy storage system for gas ...](#)

Saudi oil and gas giant Aramco has successfully commissioned a megawatt (MW)-scale renewable energy storage system to power gas production activities. It is the first ...

### [Aramco Debuts RE Storage System for Gas Operations](#)

'It is the first deployment globally of an Iron-Vanadium (Fe/V) flow battery as a backup solar power source for gas well operations'.



## [Aramco Becomes First in the World to Operate Advanced ...](#)

The 1-megawatt-hour flow battery system in Wa'ad Al Shamal in northwest Saudi Arabia is based on patented technology developed by Aramco and implemented in collaboration with Rongke ...

## **Aramco Deploys World-First Iron-Vanadium Flow Battery to ...**

The 1-MW/hour battery system--installed at Wa'ad Al-Shamal in western Saudi Arabia--will power up to five remote gas wells and is engineered to operate reliably in extreme ...



## **Aramco's Renewable Energy Breakthrough: Flow Battery Powers ...**

Developed with Rongke Power, this battery offers a robust alternative to traditional solar energy solutions. It efficiently handles variable power demands and is engineered to ...





## [Aramco Debuts RE Storage System for Gas ...](#)

'It is the first deployment globally of an Iron-Vanadium (Fe/V) flow battery as a backup solar power source for gas well operations'.

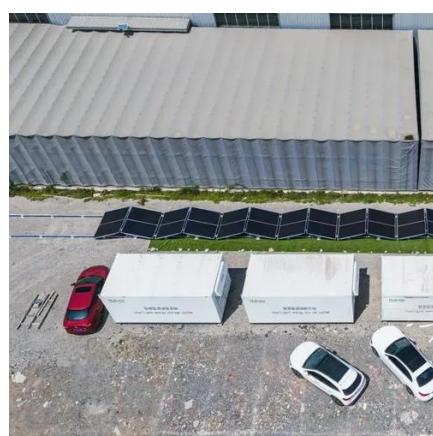


## [Aramco's World First in Sustainable Energy Storage](#)

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 ...

## [Aramco's Renewable Energy Breakthrough: Flow ...](#)

Developed with Rongke Power, this battery offers a robust alternative to traditional solar energy solutions. It efficiently handles ...



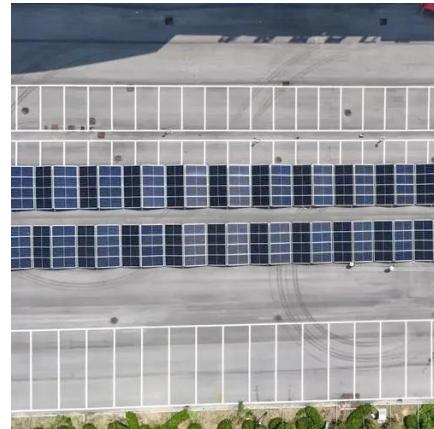
## **World's first commercial iron/vanadium flow battery system ...**

The new system, deployed in the industrial city of Wa'ad Al-Shamal in western Saudi Arabia, is the world's first commercially available iron/vanadium liquid flow battery solar ...



## [Aramco commissions iron-vanadium flow battery ...](#)

It is specifically engineered to withstand the hot climate of Saudi Arabia and achieve optimal performance under extreme weather ...



## **Aramco commissions iron-vanadium flow battery for energy storage**

It is specifically engineered to withstand the hot climate of Saudi Arabia and achieve optimal performance under extreme weather conditions, setting it apart from other ...

## [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 ...



## [Aramco launches renewable energy storage ...](#)

Saudi oil and gas giant Aramco has successfully commissioned a megawatt (MW)-scale renewable energy storage system ...



## [Aramco Deploys World's First Fe/V Flow Battery for](#)

Saudi Aramco has achieved a global first by successfully deploying a megawatt-scale Iron-Vanadium (Fe/V) flow battery system to power gas production activities, setting a ...





## Contact Us

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