

Redox Flow Battery Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028

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Abstracts

The global redox flow battery market size reached US\$ 206.9 Million in 2022. Looking forward, IMARC Group expects the market to reach US\$ 570.0 Million by 2028, exhibiting a growth rate (CAGR) of 18.4% during 2022-2028.

A redox flow battery is a rechargeable, electrochemical device that converts chemical energy into electrical energy via reduction of working fluids and reversible oxidation. It is clean, efficient, reliable, sustainable, and cost effective compared to other types of batteries like lead acid and lithium ion. As it has a flexible system design, it can store energy from intermittent electricity sources, such as solar and wind. Nowadays, the use of renewable energy sources is growing significantly, which is catalyzing the demand for redox flow batteries in several end use industries.

Redox Flow Battery Market Trends:

Fossil fuels have become one of the most exploited sources to generate electricity. This is resulting in the increasing amount of carbon dioxide (CO₂) emission in the atmosphere, which is disrupting the ecosphere and causing harmful impacts on the climate. As a result, governing agencies of several countries are encouraging the use of environment-friendly alternatives to generate energy from renewable sources. This represents one of the major factors escalating the demand for redox flow batteries around the world. Moreover, the growing consumption of electricity on account of rapid urbanization and the increasing global population is resulting in frequent power supply interruptions. This is also positively influencing the adoption of redox flow batteries in rechargeable, electrochemical energy storage to enhance the stability of grid networks and store surplus electricity. The stored energy can be delivered to customers, thereby providing a solution to tackle blackout issues. Apart from this, several market players are offering hybrid redox flow batteries, which are strengthening the growth of the market. Furthermore, increasing investments in research and development (R&D) by

leading players and the growing popularity of electric vehicles (EVs) are projected to drive the market.

Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global redox flow battery market report, along with forecasts at the global, regional and country level from 2023-2028. Our report has categorized the market based on type, product and application.

Breakup by Type:

Vanadium Redox Flow Battery

Hybrid Redox Flow Battery

Breakup by Product:

Compact

Large Scale

Breakup by Application:

Utility Services

Renewable Energy Integration

UPS

Others

Breakup by Region:

North America

United States

Canada

Asia-Pacific

China

Japan

India

South Korea

Australia

Indonesia

Others

Europe

Germany

France

United Kingdom

Italy

Spain

Russia

Others

Latin America

Brazil

Mexico

Others

Middle East and Africa

Competitive Landscape:

The competitive landscape of the industry has also been examined along with the profiles of the key players being CellCube Energy Storage Systems Inc, H2 Inc, HydraRedox, Invinity Energy Systems, Largo Resources Ltd., LE SYSTEM CO. Ltd., Lockheed Martin Corporation, StorEn Technologies Inc, Storion Energy and Sumitomo Electric Industries Ltd.

Key Questions Answered in This Report

1. How big is the global redox flow battery market?
2. What is the expected growth rate of the global redox flow battery market during 2023-2028?
3. What are the key factors driving the global redox flow battery market?
4. What has been the impact of COVID-19 on the global redox flow battery market?
5. What is the breakup of the global redox flow battery market based on the type?
6. What is the breakup of the global redox flow battery market based on the application?
7. What are the key regions in the global redox flow battery market?
8. Who are the key players/companies in the global redox flow battery market?

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