News Release

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Sumitomo Electric Industries, Ltd.

Sumitomo Electric Commences Construction of Fourth-Phase Vanadium Redox Flow Battery Installation in Kashiwazaki

—Contributing to the expanded use of renewable energy and the realization of a decarbonized society—

Sumitomo Electric Industries, Ltd. (hereinafter "Sumitomo Electric") has received an order for its vanadium redox flow batteries (VRFBs) from Kashiwazaki IR Energy Co., Ltd.[*1] (hereinafter "Kashiwazaki IR Energy"). Construction officially began today following a Shinto-style groundbreaking ceremony.

Kashiwazaki City has long supported Japan's energy policy as a city that developed as a center for the petroleum and nuclear power industries. Looking ahead, the city is committed to becoming a "decarbonized city" by promoting the widespread adoption of renewable energy. Sumitomo Electric is supporting the city's goal of creating a sustainable local community by maximizing the excellent energy storage and supply functions of VRFBs.

This VRFB system, to be constructed this time, is being jointly implemented by Kashiwazaki City and Kashiwazaki IR Energy as part of a subsidized project under the FY2026 Program for Promoting Public Understanding of Advanced Energy Structure and Transformation. The system is battery equipment that has obtained the JC-STAR[*2] ★1 compliance label (Level 1), which is a requirement of the subsidy program.

This equipment has a storage capacity of 8,000 kWh, and is scheduled to begin operation in spring 2027. This will be the fourth-phase installation, and, including the existing systems, the total cumulative storage capacity will reach 32,000 kWh.

During periods when power supply from renewable energy, such as solar power, exceeds demand, surplus electricity is stored in VRFBs and discharged during times of high electricity demand, enabling the effective use of renewable energy within Kashiwazaki City. Furthermore, by utilizing a large-capacity battery of 1,000 kW for 8 hours, combined with electricity trading in the wholesale electricity market, the system will also contribute to cost reduction.

Today, the groundbreaking ceremony was held following the receipt of the order. The ceremony was attended by numerous stakeholders, and a traditional Shinto ritual was conducted to pray for the safety of the construction and for accident-free and disaster-free work by all involved. Sumitomo Electric remains committed to prioritizing safety above all and, under a thorough safety management system, will strive for smooth and reliable execution of the construction work.

SUMITOMO ELECTRIC GROUP

Sumitomo Electric will continue to promote the wider adoption of our environmentally friendly VRFBs, which have safety, flame retardancy, long life, and recyclability and reusability, and promote local production and consumption of energy, thereby contributing to the realization of a sustainable society.

*1 Kashiwazaki IR Energy Co., Ltd.: A municipal new power company jointly funded by Kashiwazaki City and eight private companies, providing energy supply and utilization services.

(https://kashiwazaki.de-power.co.jp/company/ [Japanese version only])

*2 JC-STAR (Labeling Scheme based on Japan Cyber-Security Technical Assessment Requirements): A scheme established based on the “Policy for Establishing a Security Conformity Assessment Scheme for IoT Products” announced by the Ministry of Economy, Trade and Industry. JC-STAR and the JC-STAR logo are registered trademarks of the Innovation-Platform Agency (IPA), Japan.
(https://www.ipa.go.jp/en/security/jc-star/index.html)

■Overview of the newly ordered system

Installation site	Former site of Ishiji Elementary School, Kashiwazaki City, Niigata Prefecture
Product to be delivered	Vanadium redox flow battery system, 1,000 kW × 8 hours
Scheduled completion date	Spring 2027

(Reference)

■Overview of the completed systems

Installation site	Kashiwazaki City Natural Environment Purification Center Site (Kashiwazaki City, Niigata Prefecture)
Delivered product	Vanadium redox flow battery system, 1,000 kW × 8 hours
Completion date	September 2024

Installation site	Former site of Hojo Minami Elementary School, Kashiwazaki City, Niigata Prefecture
Delivered product	Vanadium redox flow battery system, 1,000 kW × 8 hours
Completion date	March 2025

Installation site	Nishiyama Multipurpose Sports Park, Kashiwazaki City, Niigata Prefecture
Delivered product	Vanadium redox flow battery system, 1,000 kW × 8 hours
Completion date	February 2026

(Related Information)
■ VRFB Website
https://sumitomoelectric.com/products/flow-batteries

■ Sumitomo Electric Group Future Creation Magazine “id” Vol. 19
The Mission of “Vanadium Redox Flow Batteries” Supporting Renewable Energy
https://sumitomoelectric.com/sites/default/files/2026-01/download_documents/sei_id19e.pdf