





SCiB™ Application Example



Customer Information

Customer 	Tohoku Electric Power Co., Inc. Nishisendai Substation	Location 	Japan
Application 	Battery energy storage system for reducing grid frequency changes	Product 	SCiB™ system* (*Battery Energy Storage System)

Challenge



One of the world's largest*¹ battery energy storage systems (BESS), with a maximum output of 40 MW, was delivered for the Tohoku Electric Power's Nishisendai Substation to reduce grid frequency changes caused by weather-dependent power fluctuations that result from the increasing use of renewable energy resources such as wind and photovoltaic power generation systems. This demonstration project was launched as a new approach to regulate frequency changes.

*1 : As of Nov 26th, 2013

SCiB™ Solution

Long Life

- SCiB™ can maintain capacity of more than 80% even after 12,000 charge and discharge cycles. Frequent charging and discharging, such as for frequency adjustment applications, brings little degradation, making it very suitable as a storage battery system.

High Input & Output

- With its high Input & output capability, SCiB™ realized the world largest charging and discharging capacity of this battery energy storage system. (Maximum output power: 40MW / Nominal capacity: 20MWh)

Safety

- Using oxide-based materials (Lithium Titanium Oxide), penetration tests and overcharge tests have confirmed a very low risk of rupture and ignition.

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DK-20-136 as of November 2020