July 28, 2025
Meidensha Corporation

Meidensha delivers AC-DC converter equipment for lithium-ion batteries to NTT Anode Energy to support renewable energy expansion

Meidensha Corporation has delivered AC-DC converter equipment (power conditioning system; PCS) for lithium-ion batteries — which help stabilize the power grids — to four NTT Anode Energy Corporation grid energy storage stations in Saitama and other prefectures. The systems have come online or are being prepared for operation since April, contributing to a more stable power demand-supply balance.

Saitama Miyoshi Power Storage Station (Miyoshi Town, Iruma-gun, Saitama Prefecture), where Meidensha delivered a PCS.

■ Background

While expanding and efficiently using renewable energy is indispensable to attaining carbon neutrality, the amount of energy generated is subject to weather conditions and cannot match the stability of conventional sources possessing flexibility, such as thermal power. It is therefore necessary to spread the use of storage batteries capable of charging and discharging power flexibly to ensure stable operation of the power grid.

NTT Anode Energy ensures optimal transactions across various electricity markets and unilaterally manages maintenance work at power storage stations tasked with controlling

power charge and discharge. NTT Anode Energy highly regards Meidensha's PCS, the key component in storage stations, because of the following performance characteristics.

■ Main PCS features

1. Capable of charging and discharging on external command
   When used to adjust power in supply-demand adjustment markets, the PCS controls battery charging and discharging in response to commands from external control systems. Meidensha plans to add a self-terminal control function that enables the PCS to charge and discharge batteries in response to its output-terminal fluctuations, meeting the requirement for immediate primary regulation.
2. Integrated package: PCS, control panel, power receiving section, and interconnection transformer (6.6 kV)
   The PCS's rated capacity ranges from 799 kVA to 2,100 kVA. The package includes a 6.6 kV power receiving section, enabling connection to high-voltage distribution systems used by, for example, power storage stations.

Meidensha plans to increase PCS rated capacity to meet the needs of large-scale power storage stations by introducing models with a DC voltage range of 1,500 V.

■ Locations where PCS units have been delivered
Miyoshi Town, Saitama Prefecture (in operation)
Tsurugashima City, Saitama Prefecture (in operation)
Tsubata Town, Ishikawa Prefecture (under construction)
Maibara City, Shiga Prefecture (under construction)

Meidensha strives to create new value through technology for customer peace of mind and satisfaction, serving as a sustainability partner to help realize a more affluent, livable future society.

■ Reference

Meidensha press release dated on November 1, 2023
Lithium-ion battery system for power grid sold to NTT Anode Energy, Kyushu Electric Power, Mitsubishi Corporation

NTT Anode Energy press release dated on May 23, 2025 (Japanese only)

Commercial operations begin at power storage stations in Wako, Miyoshi and Tsurugashima in Saitama Prefecture

Meidensha power conditioners for power storage systems