

April 14, 2025

Yazaki Corporation



Effective Utilization of Used Onboard Batteries from Electric Vehicles.
Commencement of Demonstration Testing
for the Reused Energy Storage System Product "B∇TTERFLY®"

Yazaki Corporation (hereinafter referred to as "Yazaki") has developed the reused energy storage system product "B∇TTERFLY®" (Butterfly), which can be utilized even used onboard batteries with different deterioration states are mixed. Yazaki has now commenced demonstration testing at a testing facility in Y-CITY (Susono City, Shizuoka Prefecture).

This initiative aims to reuse used onboard batteries and verify new technologies that contribute to the effective use of renewable energy and the realization of a sustainable society.

Yazaki aims to fully enter the reused energy storage system market by 2030.

【Background】

As the world moves toward a decarbonized society, the adoption of electric vehicles (EVs) is accelerating. However, the proper processing of used onboard batteries, including recycling and reuse, has become a major challenge. In particular, onboard batteries that have been used in various environments degrade at different rates, making reuse difficult and requiring more efficient utilization methods. To address this social issue, Yazaki has been developing "B∇TTERFLY®," a reused energy storage system product that leverages our proprietary algorithms and control technology.

【Features of B∇TTERFLY®】

- Utilization of Batteries with Different Degradation States: Proprietary control algorithms make efficient and stable power supply and demand management possible.
- Effective Resource Utilization: By reusing used onboard batteries, the system contributes to cost reduction and lower environmental impact.
- Flexible System Design: The system is highly adaptable for residential, industrial, and grid applications.

【Details of the Demonstration Test】

This demonstration test aims to verify the technical feasibility and operational performance of reused energy storage system product "B∇TTERFLY®." The following two key aspects will be examined:

① Effectiveness of the Proprietary Algorithm

The test will confirm whether the proprietary control algorithm embedded in "B∇TTERFLY®" can optimize power control based on battery conditions and ensure stable power supply and demand management.

② Battery Anomaly Detection and Control Function

Since the system operates with batteries in varying states of degradation, the test will evaluate the effectiveness of its anomaly detection and control functions. Specifically, it will assess whether the system can detect abnormalities, automatically stop operation, or isolate faulty units while maintaining overall system functionality.

The demonstration test commenced at the testing facility in Y-CITY from January 2025, with the goal of collecting data for future commercialization.

Based on the data obtained from this demonstration test, Yazaki aims to commercialize the system for industrial and grid-scale energy storage applications. Moving forward, we will continue to develop technologies that contribute to the realization of a sustainable society.

【Demonstration Facility in Y-CITY】



【Reused Energy Storage System Product B\TTERFLY®】



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