

Shizen Connect launches SaaS grid storage battery control to contribute to the expansion of renewable energy and grid stabilization

Shizen Connect Inc. has begun offering SaaS (Software as a Service) for grid storage battery control using Shizen Connect, an energy management system developed and operated by the company. This service has been selected by Osaka Gas Co., Ltd. and will be used for its grid storage battery business*1.

As the movement towards carbon neutrality by 2050 accelerates and the development of renewable energy such as solar and wind power continues, there is a growing expectation for grid storage batteries to provide balancing capacity to manage the fluctuations in renewable energy output.

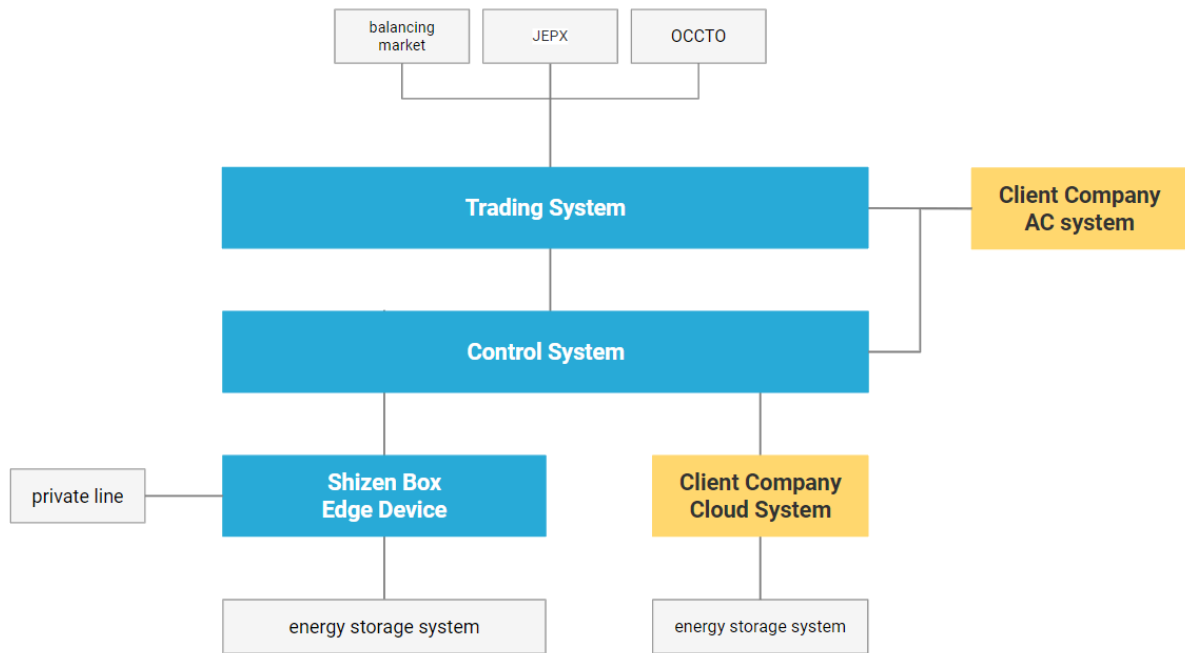
Since 2023, Shizen Connect has been providing a comprehensive operation service for power generation companies that have installed grid storage batteries, including market transactions in various electricity markets and remote control of storage batteries on behalf of the companies. Shizen Connect has also been selected for grid storage battery projects for Nishitetsu Shizen Energy GK starting in May 2024 and for Tokyu Land Corporation, which is scheduled to start in the second half of fiscal 2024.

This SaaS provides controlling, monitoring and trading support functions for large utility companies, battery manufacturers, integrators and other companies that have installed and operate large numbers of grid storage batteries and operate them on their own or for third parties.

This service is not limited to be used as a full package, but it is possible to use only the necessary functions according to each company's needs. By using this service to fill the gaps of missing components while utilizing each company's grid storage battery expertise and existing systems, the cost and effort of system development can be reduced, and grid storage battery businesses can be flexibly started and expanded.

Together with leading companies in various fields, Shizen Connect will continue to contribute to the realization of a decarbonized society.

Diagram1 System Overview



■Service Features Overview

Features	Details
Trading System	<ul style="list-style-type: none"> ● AI-based market price forecasting and manual correction of market price forecasts (Diagram 2) ● Creation of optimal transaction plans and automatic generation of storage battery charge/discharge plans (Diagram 3) ● Bidding in various markets and automatic processing of notifications to OCCTO ● Data linkage of transaction plans from client company trading systems
Control System	<ul style="list-style-type: none"> ● Remote monitoring of storage battery control, equipment operating status and malfunction information, etc. (Diagram 4 and 5) ● Storage and visualization of performance data ● Connection to simplified signal dispatching system or dedicated lines of power transmission and distribution companies ● Integration with client company AC systems ● Integration with client company storage battery cloud system ● Manual control (remote start/stop operation, schedule setting)
Shizen Box Edge Device	<ul style="list-style-type: none"> ● Connect to storage batteries for remote monitoring and control

*Other services are also available such as procedural support with power transmission and distribution companies, supply and demand management, and market transactions

■List of large storage battery manufacturers compatible to this service

ITOCHU Corporation
 Sungrow Corporation
 Taoke Energy
 Tesla Inc.
 PowerX (scheduled)
 Huawei Technologies (scheduled)
 *Manufacturers compatible with this service to be expanded

Diagram2 Example of trading system screen:
Manual correction of market price forecasts by AI



Diagram3: Example of trading system screen: display of DR execution results

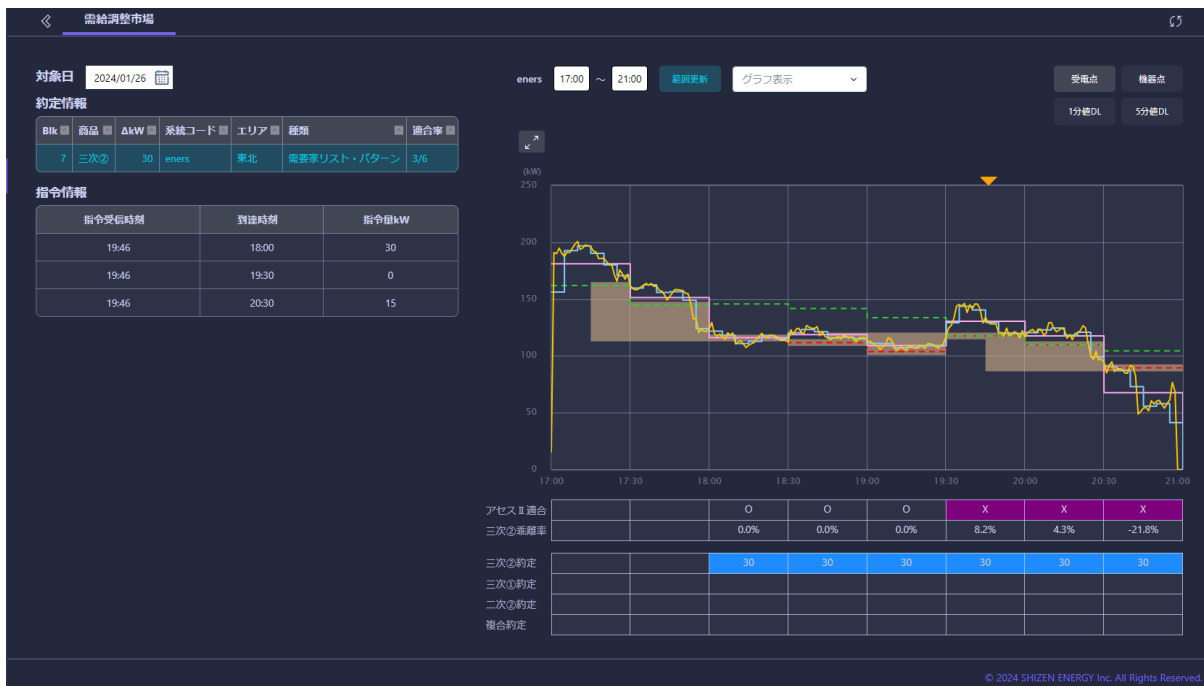


Diagram4 Example of control system screen: Storage battery operation status display

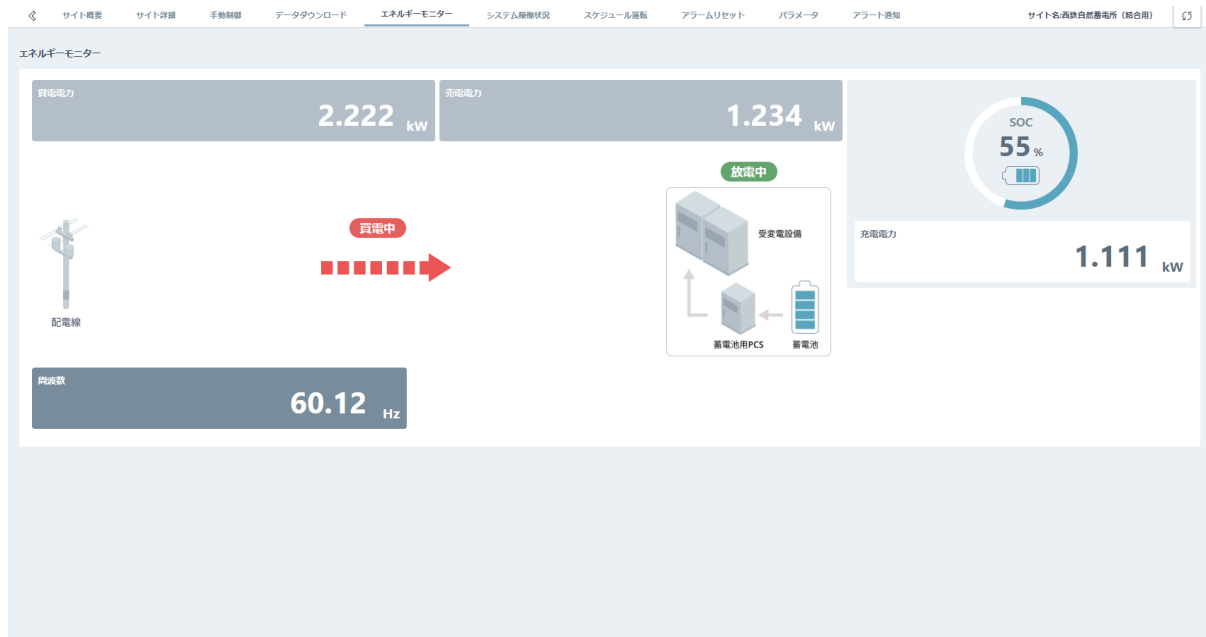
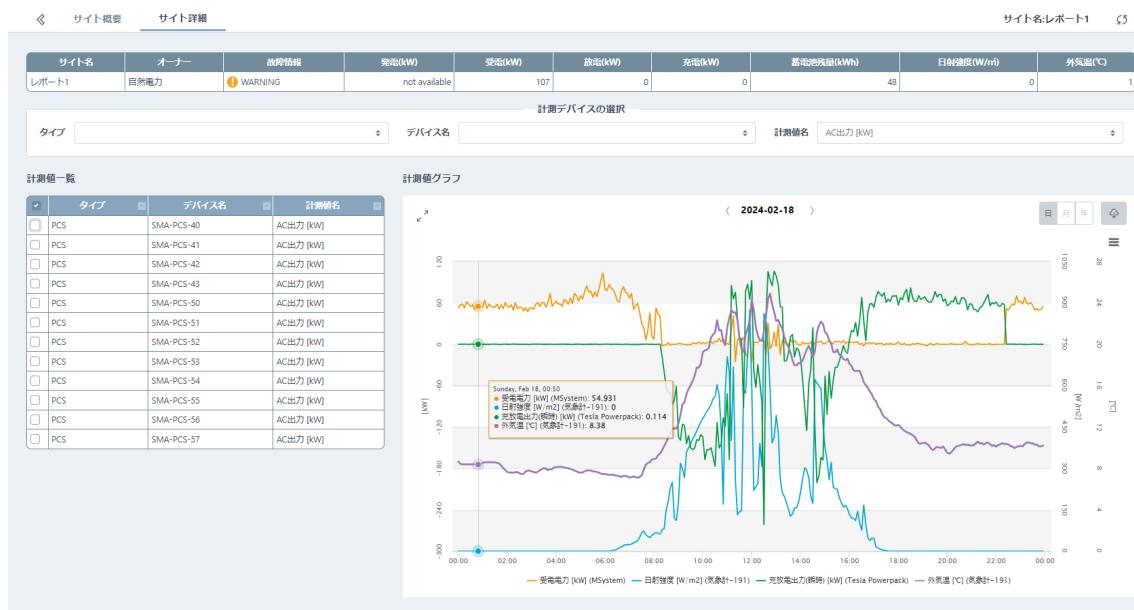


Diagram5 Example of control system screen: Remote monitoring of equipment operation status



*1 Energy Management System "Shizen Connect" selected for major city gas company's grid storage battery business (Press release December 8, 2023)

https://www.shizenenergy.net/2023/12/08/osaka_gas_adopt_shizen_connect/ (Japanese)

*2 Nishitetsu and Shizen Energy enter grid storage battery business (Press release July 19, 2023)

https://www.shizenenergy.net/2023/07/19/grid_scale_battery_nishitetsu/

*3 Shizen Connect selected by Tokyu Land Corporation for TENOHA Higashimatsuyama Grid Storage Battery Project (Press release August 3, 2023)

https://www.shizenenergy.net/2023/08/03/shizenconnect_tokyu_grid_battery/

EMS “Shizen Connect” <https://www.se-digital.net/> (Japanese website)

“Shizen Connect” is an aggregation energy management system (EMS). It can provide individual control for storage batteries and EV chargers, control for microgrids connecting multiple buildings with their own private transmission lines, as well as control of VPPs for large scale energy resources. Individual control and VPP control tended to be separate, but Shizen Connect provides a one-stop service allowing energy resources to be used multi-purposefully, which also improves economic efficiency. The system can be adapted with any equipment supplier, allowing energy resources to be chosen freely without relying on a certain manufacturer.

Shizen Connect Inc.

Head Office: 2-4-7 Nihonbashi-honcho, Chuo-ku, Tokyo

Founded: October 2, 2023

Shareholder: Shizen Energy Inc. 100%

Representative Director: Munekazu Matsumura

Business: VPP platform, energy management service, IoT equipment sales, etc.

URL: <https://se-digital.net> (Japanese only)

<For inquiries regarding this press release>

Shizen Energy Group, Public Relations Department

E-mail: se-comm@shizenenergy.net