

Press Release

June 26, 2023 Shizen Energy Inc.

Shizen Energy selected for METI DER Aggregation Demonstration Project ~Demonstration for aggregation coordinator, grid storage batteries & VPP with EVs ~

Shizen Energy Inc.(Shizen Energy) has been selected by the Ministry of Economy, Trade and Industry (METI) for its "FY2023 Demonstration Project for Further Utilization of Distributed Energy Resources."

■ About Demonstration Project for Further Utilization of Distributed Energy Resources

The "Demonstration Project for Further Utilization of Distributed Energy Resources" aims to provide flexibility and supply capability to the electricity market, electricity retailers, and power generation companies by converting distributed energy resources (DER) such as storage batteries and electric vehicles (EVs) into VPPs (*1).

Shizen Energy has comprehensively demonstrated a range of VPP controls, including all flexibility controls in the supply-demand adjustment market for storage batteries, Demand Response (DR) control as a dispatch instructed power source in the capacity market, and arbitrage control in the wholesale market, and has also demonstrated VPP for EV normal chargers, V2H equipment(*2), and eco-cutes .

In May 2023, Shizen Energy jointly launched the commercial service "Equipment Control DR Supportive Service" (*3) with leading storage battery companies Omron Social Solutions Co. Ltd, GridShare Japan Corporation(*4), Smart Solar Corporation, and Nichicon Corporation, and the service has been adopted by Tokyo Gas Co. Ltd for its energy saving promotion. In February 2023, Shizen Energy also signed a business alliance with ITOCHU Corporation for the aggregation control of grid storage batteries (*5).

This year, Shizen Energy will be demonstrating control as an aggregation coordinator (*6) for the first time, and will also demonstrate control of grid storage batteries, as well as VPP construction using EVs and EV-reused storage batteries.

Shizen Energy is developing the Energy Tech business based on the belief that in order to expand and spread renewable energy, it is essential not only to develop renewable energy sources but also to establish a system that balances the supply of renewable energy with the demand for renewable electricity. Shizen Energy will continue to accelerate the realization of a "100% renewable energy world" through the spread of distributed power sources in the community.



■Overview of DER aggregation demonstration project

Consortium Leader	ENERES Co., Ltd.
Target Resources	Grid Storage Batteries
	Industrial Storage Batteries
	Residential Storage Batteries
	•V2H equipment
	•EV normal chargers
Details of the	Connection with simple commands as aggregation coordinator
demonstration	 Control for the supply and demand adjustment market
	•Economic DR Control
Project duration	Grant award date - February 20, 2024

- *1 **VPP (Virtual Power Plant)**: digital technology that collectively controls distributed power sources (power generation facilities, storage batteries, EVs, etc.) and demand facilities as if they were a single power plant.
- *2 **V2H (Vehicle to Home):** sending electricity from the EV to the home. In the event of power failure (e.g. natural disasters), home appliances can be used by supplying power from the EV.
- *3 Equipment Control Demand Response Service press release
- *4 **GridShare Japan Corporation**: a resource aggregator that controls residential storage batteries manufactured by NF Blossom Technologies, Inc.
- *5 MOU with ITOCHU for aggregation control of grid storage batteries press release
- *6 **Aggregation coordinator**: an entity that trades with general transmission and distribution utilities and electricity retailers for the flexibility and supply capability created by aggregation



[About Shizen Energy Inc.]

Founded in June, 2011. With the company purpose of "We take action for the blue planet," the company's business includes development, financing, and asset management of renewable energy power plants using solar power, wind power, small-scale hydroelectric power, and biomass. Since 2016, the company has also been focusing on its international operations, expanding its development and power generation projects in areas such as Southeast Asia and Brazil. In 2019, the company also entered the energy tech business, offering micro-grid and VPP construction, smart charging and discharging services for EVs, and other services through its self-developed EMS (energy management system). Shizen Energy Group has been involved in more than 1 GW of renewable energy generation internationally.

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[Shizen Connect]

Shizen Connect is an aggregation energy management system that collectively controls energy resources such as renewable energy power generation, storage batteries, EVs and EcoCutes. Shizen Connect can control residential solar power generation with storage batteries and V2H equipment, as well as operation of microgrids connecting multiple buildings with transmission lines, and VVP construction of several thousand units of energy resources. Individual control and VVP control tended to be separate, but Shizen Connect provides a one stop service allowing energy resources to be utilized with multi-purpose 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.

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