

Nitto Kogyo and Shizen Connect launch demonstration of VPP utilizing reused EV batteries

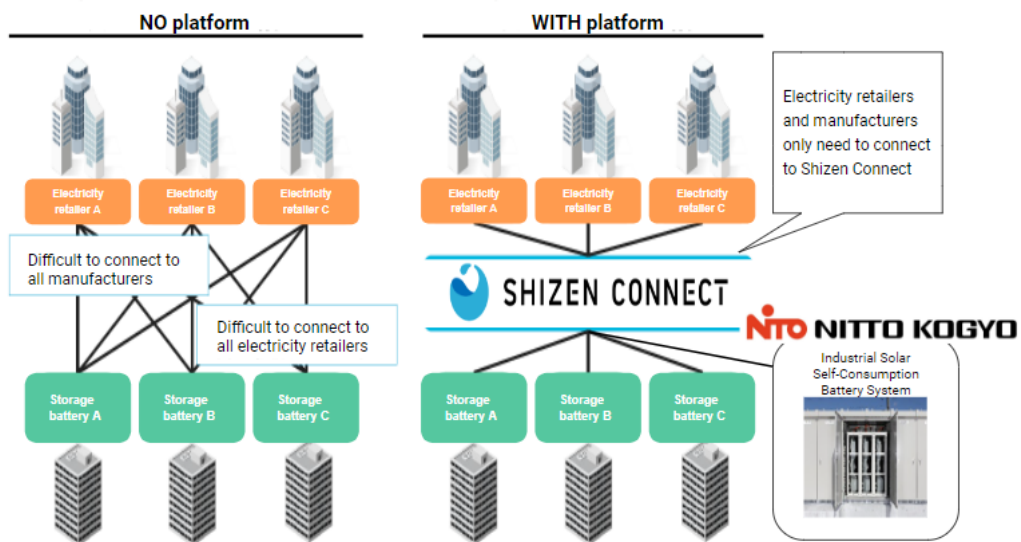
- Verifying technical feasibility of balancing market bidding -

Nitto Kogyo Corporation (Nitto Kogyo) and Shizen Connect Inc.(Shizen Connect), which provides a VPP *1 platform, will participate in the Ministry of Economy, Trade and Industry's "FY2023 Demonstration Project for Further Utilization of Distributed Energy Resources" (DER Aggregation Demonstration Project), in which they will conduct a demonstration project to build a VPP that contributes to power grid stabilization by utilizing Nitto Kogyo's EV Battery Reuse System.

The project will utilize Nitto Kogyo's environmentally friendly "Industrial Solar Self-Consumption Battery System", installed at Nitto Kogyo's Kakegawa plant, and Shizen Connect's proprietary aggregate energy management system (EMS) Shizen Connect, which utilizes IoT technology and artificial intelligence (AI) to remotely control the charging and discharging of storage batteries. By remotely controlling the recharge and discharge, Demand Response (DR)*2 will be conducted within the framework of the DER Aggregation Demonstration Project to verify the technical feasibility of control for the balancing market (Replacement Reserve for FIT).

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

■VPP image



*1 **Virtual Power Plant (VPP)** is a generic term for 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 **Demand response (DR)** is the process of changing the pattern of electricity demand by allowing consumers to manage their electricity use wisely. This helps to balance the supply and demand of electricity.

■ Demonstration overview

Objective	Verifying the technical feasibility of remote controlling Nitto Kogyo's EV Battery Reuse System for VPP construction
Duration	December 2023 - February 2024
Role of Nitto Kogyo	<ul style="list-style-type: none"> ▪ Establish remote control method for reused storage batteries ▪ Provide demonstration environment including storage batteries and demonstration site
Role of Shizen Connect	<ul style="list-style-type: none"> ▪ DR planning and remote control implementation ▪ Review the results of the demonstration ▪ Overall coordination of the demonstration project

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 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.

Nitto Kogyo Industrial Solar Self-Consumption Battery System

The Industrial Solar Self-Consumption Battery System is an industrial solar energy storage system for self-consumption that utilizes the reuse of batteries from electric vehicles. Battery reuse reduces CO₂ emissions from the manufacturing process and reuses resources such as rare metals, creating a virtuous cycle.



特設サイト



Nitto Kogyo Corporation

Headquarters: 2201 Kanihara, Nagakute-shi, Aichi

Business: The manufacture and sales of electric and mechanical equipment such as high-voltage power receiving equipment, panel boards, home panel boards, charging stations, optical boxes, metal enclosures, plastic enclosures, system racks, breakers, switches, thermal management products, etc. Power generation and sales business.

URL: <https://www.nito.co.jp/>

Shizen Connect Inc.

Head Office: 3F, 5-33-10 Hongo, Bunkyo-ku, Tokyo

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

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

Contact information

Regarding The Industrial Solar Self-Consumption Battery System

Nitto Kogyo Corporation

• Customer service <https://nhs.nito.co.jp/safalink-one/inquiries> (Japanese)

• For media inquires: 0561-64-0123

• For IR inquires: 0561-64-0112

Regarding EMS Shizen Connect

Shizen Connect Inc.

• Contact form: <https://www.se-digital.net/contact/> (Japanese)

• For media inquires: se-comm@shizenenergy.net