

Press release

July 10, 2024
Shizen Connect Inc.
JERA Co., Inc.
JERA Cross Co., Inc.

JERA Group and Shizen Connect to Start Trial Project for the Supply of "24/7 Carbon-Free Energy" from December 2024

JERA Co., Inc. ("JERA"), along with its subsidiary JERA Cross Co., Inc. ("JERA Cross"), and Shizen Connect Inc. ("Shizen Connect"), announce the commencement in December 2024 of a trial project for the supply of 24/7 carbon-free energy ("24/7 CFE").*1 To support this initiative and strengthen collaboration with Shizen Connect, JERA has, through JERA Ventures,*2 made an investment in Shizen Connect.*3



As efforts to achieve decarbonization move forward globally, there is growing interest in 24/7 CFE, which aligns hourly power consumption with supply to utilize renewable energy in real time, a more progressive approach than the current method of offsetting CO₂ emissions through renewable energy certificates.

JERA Cross has been pioneering zero-emission efforts in the energy sector and, in an effort to promote 24/7 CFE in Japan, conducting joint research on 24/7 CFE tracking and certification with the University of Tokyo.*4

Shizen Connect, a VPP*5 platform developer, has a track record of controlling various energy resources including grid-scale batteries through "Shizen Connect," an energy management system developed and operated by the company. In 2023, the company began offering grid-scale battery operation services*6,*7 and, in 2024, launched a SaaS (Software as a Service) for grid-scale battery control systems.*8

In this trial, JERA and JERA Cross will act as aggregators*9 of multiple power sources including renewables and batteries, utilizing their expertise to forecast demand and power generation and producing battery charging and discharging plans based on these forecasts. Using "Shizen Connect" and API*10 integration with the supply-demand management system used by JERA Cross, Shizen Connect will control the batteries remotely, adjusting charging and discharging plans based on real-time monitoring of actual data to balance supply and demand. Plans call for system integration to be completed by the end of 2024, with trial conditions and workflows to be defined and trial supply of 24/7 CFE for specific projects to be carried out beginning in January 2025.

This trial is a pioneering effort in Japan towards realizing 24/7 CFE. Based on the results, operational methods will be established with the aim of early commercialization.

JERA Cross and Shizen Connect will continue to contribute to the realization of a decarbonized society.

Table 1: Overview of the December 2024 Trial

Objective	In order to establish initial operation of 24/7 CFE services using on-site and co-located batteries, sort out the data items needed for charge-discharge planning and verify battery communication.
Trail Period	December 2024
Subjects	<ol style="list-style-type: none"> 1. Consideration of technology for balancing renewable energy supply and power demand. 2. Integration of power supply-demand management systems with battery control systems.

**Details of activities after January 2025 will be determined based on the December 2024 trial.*

- *1 24/7 CFE (Carbon-Free Energy): Electricity that emits no CO₂ twenty-four hours a day, seven days a week, 365 days a year. In accordance with the Ministry of Economy, Trade and Industry's "Guidelines for Retail Sales of Electricity," this means providing 100% of the electricity supply from zero-CO₂ emission sources, including the environmental value derived from the use of non-fossil certificates.
- *2 JERA Ventures: An internal organization established to accelerate innovation and create new business opportunities for JERA. Focus areas include Energy Transformation (decarbonization technology), Customer Centric (digital technology providing new value to customers), and Corporate (well-being, Femtech, etc.).
- *3 Shizen Connect has entered capital and business alliances with major electric power companies to move beyond the virtual power plant demonstration phase (Press release dated 9 July 2024: https://www.shizenenergy.net/2024/07/09/sc_capital_business_alliance/)
- *4 Agreement on the social implementation of carbon-free power combining digital and energy (Press release dated 5 March 2024: https://www.jera.co.jp/news/information/20240305_1834)
- *5 Virtual Power Plant (VPP): Integrates and remotely controls distributed energy resources (power generation facilities, storage batteries, EVs, etc.) to function as a single power plant.
- *6 Nishitetsu and Shizen Energy enter grid-scale battery business (Press release dated 19 July 2023: https://www.shizenenergy.net/2023/07/19/grid_scale_battery_nishitetsu/)
- *7 Shizen Connect adopted by Tokyu Fudosan for grid-scale battery project at Tenoha Higashimatsuyama (Press release dated 3 August 2023: https://www.shizenenergy.net/2023/08/03/shizenconnect_tokyu_grid_battery/)
- *8 Shizen Connect launches SaaS for grid-scale battery control systems (Press release dated 1 March 2024: https://www.shizenenergy.net/2024/03/01/sc_saas_service_grid_battery/)
- *9 Aggregator: A business that centrally manages multiple energy resources such as power generation facilities and storage equipment.
- *10 API: Application Programming Interface. An interface that connects software, programs, and web services.

About the “Shizen Connect” Energy Management System

"Shizen Connect" is an energy management system capable of controlling individual units

like batteries and EV chargers, microgrids connecting multiple buildings via private lines, and large-scale energy resource VPP control. It provides one-stop solutions for individual and VPP controls, enhancing economic efficiency through multipurpose use of energy resources. It is vendor-free, allowing free selection of energy resources without dependence on manufacturers.

<https://www.se-digital.net/>

Company Information:

JERA Co., Inc.

Headquarters: 25th Floor, Nihonbashi Takashimaya Mitsui Building, 2-5-1 Nihonbashi, Chuo-ku, Tokyo

Established: 30 April 2015

Shareholders: TEPCO Fuel & Power, Inc. 50%, Chubu Electric Power Co., Inc. 50%

Representatives: Yukio Kani, Chairman & Global CEO; Hisaka Okuda, President & CEO and COO

Business: Thermal power generation, renewable energy, gas and LNG, and related engineering and consulting

JERA Cross Co., Inc.

Headquarters: 25th Floor, Nihonbashi Takashimaya Mitsui Building, 2-5-1 Nihonbashi, Chuo-ku, Tokyo

Established: 28 April 2023

Shareholder: JERA Co., Inc. 100%

Representatives: Satoshi Tanaka, Chairman & CEO; Takao Miki, President & CEO

Business: GX business support services, power decarbonization solutions

Shizen Connect Inc.

Headquarters: 2-4-7 Nihonbashi Honcho, Chuo-ku, Tokyo

Established: 2 October 2023

Shareholder: Shizen Energy Inc. 100%

Representative: Munekazu Matsumura, CEO

Business: VPP platforms, energy management services, IoT device sales, etc.

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