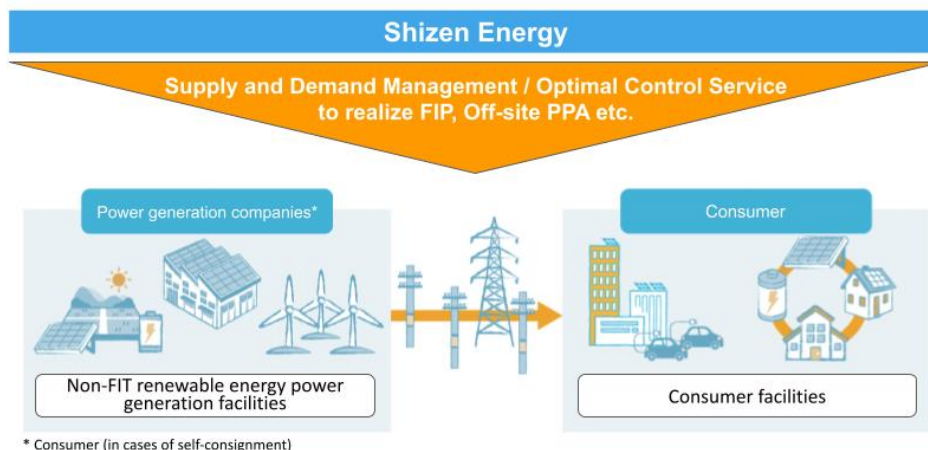


December 15, 2021  
Shizen Energy Inc.

## Shizen Energy Launches Renewable Energy Aggregation Service for Supply and Demand Management and Optimal Control to Realize FIP, Off-site PPA and Self-Consignment ~Shizen Connect: Originally Developed Aggregate Energy Management System~

Shizen Energy has launched a renewable energy aggregation service for power generation companies and consumers which conducts FIP [\* 1] power development, off-site PPA[\* 2], and self-consignment by supporting supply and demand management and optimal control of renewable energy, which is provided to retail electric power companies and consumers.



This service will support supply and demand management operations such as power generation forecasting, submission of plans to OCCTO (Organization for Cross-regional Coordination of Transmission Operators, JAPAN), and bidding to JEPX (Japan Electric Power Exchange), which are necessary for the operation of non-FIT power sources [\* 3], in anticipation of the introduction of FIP in April 2022 and the introduction of non-FIT power sources such as self-consignment and off-site PPA. This service also provides optimal control of energy resources such as storage batteries to avoid imbalance. [\* 4].

Shizen Energy has demonstrated digital technologies such as IoT control, various forecasting and optimization in the METI (Ministry of Economy, Trade and Industry) VPP [\* 5] demonstration project and renewable energy aggregation demonstration project. From September 28, 2021, Shizen Connect has aggregated the renewable energy of non-FIT solar power generation owned by Members Co., Ltd. and provides electricity to its employees.

- VPP demonstration projects  
<https://www.shizenenergy.net/2020/06/01/vpp-second-experiment>
- Renewable energy aggregation demonstration projects  
[https://www.shizenenergy.net/2021/06/25/feasibility\\_study\\_der](https://www.shizenenergy.net/2021/06/25/feasibility_study_der)
- Project with Members Co., Ltd.

<https://www.members.co.jp/company/news/2021/0928.html>

● **online seminar**

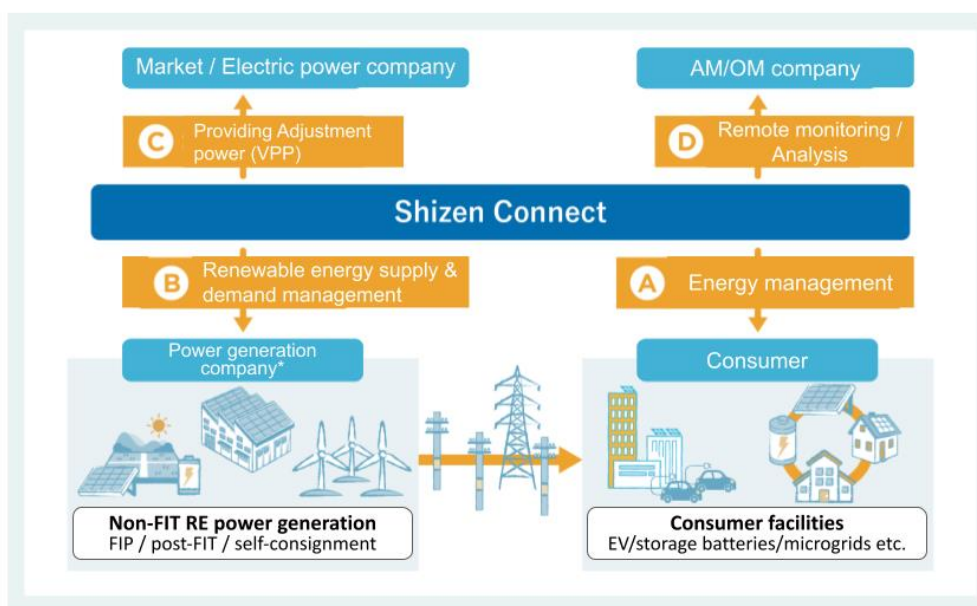
Shizen Energy will hold an online seminar regarding Shizen Connect

- seminar registration page <https://www.se-digital.net/220119-seminar>

date	Wednesday, January 19, 2022 16:00-17:30
place	online ※ a URL will be sent to you after registration
Participants	Power generation companies, companies interested in renewable energy
Content	<ul style="list-style-type: none"> <li>• Introduction of Shizen Energy and EnergyTech business</li> <li>• FIP and off-site PPA</li> <li>• Shizen Energy’s renewable energy aggregation service</li> <li>• Q&amp;A</li> </ul>
Fee	Free

※ date and content may change without prior notification

● **Aggregate Energy Management System: Shizen Connect**



This service utilizes Shizen Connect, an aggregate energy management system developed by Shizen Energy.

Shizen Connect is a system that collectively controls energy resources such as renewable energy power generation equipment, storage batteries, EVs (electric vehicles), and EcoCute. Shizen Connect can control residential solar power generation with storage batteries and V2H [\* 6] equipment, as well as remote monitoring of mega solar facilities, operation of microgrids [\* 7] connecting multiple buildings with transmission lines, and VPP construction

## Press Release

of several thousand units of energy resources. A newly developed function for renewable energy aggregation has been added to this system.

Shizen Energy aims for a world of 100% renewable energy, and in addition to developing power sources, Shizen Energy promotes the EnergyTech business by controlling resources on the consumer side, creating adjustment power (VPP construction) foreseeing renewable energy to become the main power source, and utilizing electricity power data. Shizen Energy will continue to accelerate the realization of a "world of 100% renewable energy" through the promotion of distributed power sources in each region.

※1 FIP (Feed-in Premium) : a scheme that adds a premium (surcharge) when selling electricity from a renewable energy source.

※2 PPA (Power Purchase Agreement) : a contract to purchase power, generally when a power generation company (also called a PPA company) installs, owns, and manages power generation equipment at its own expense, and the power generated at that site is provided and sold to the consumer over a long term. On-site PPA is where power is generated on the consumer's facility such as roof-tops or an adjacent land and is directly provided and sold to the consumer. Off-site PPA is where power is generated in a remote area and is transmitted to the consumer facility through the power system.

※3 FIT (Feed-in Tariff) : a scheme in which major electric power utilities purchase electricity from a renewable energy source at a fixed price for a fixed period of time.

※4 Imbalance : The difference between the planned amount and the actual amount of electricity. The charge including the penalty element that must be paid for the difference is called the "imbalance charge".

※5 VPP (Virtual Power Plant) : a general term for digital technology that collectively controls distributed power sources (power generation equipment, storage batteries, EVs, etc.) and demand equipment as if they were one power plant.

※6 V2H (Vehicle to Home) : sending the EV electricity to the house.

※7 microgrid: a small-scale power system with a power supply and demand equipment normally connected to the electrical power grid, but designed to shut off in the event of a disaster so it can stand on its own with its internal power equipment.

● Contact information regarding this service  
Shizen Energy Inc. Future Value Creation Digital Group  
Contact form: <https://www.se-digital.net/contact/>

### **【About Shizen Energy Inc.】**

Founded in June, 2011. With the PURPOSE of "We take action for the blue planet", Shizen Energy Group has contributed to the development of approximately 1GW of renewable energy throughout Japan (as of December, 2019). The company's business includes development, engineering, procurement, construction (EPC), operation and maintenance (O&M), and asset management businesses for the installation and operation of large-scale renewable energy power plants. It also provides decarbonization solutions such as power purchase agreements (PPA) for medium and small-scale power plants and electricity retailing. Since 2016, the company has also been focusing on its overseas operations, expanding its development and power generation projects in areas such as Southeast Asia and Brazil.

URL: <http://www.shizenenergy.net/en/>

Press Release

**【About Shizen Connect】** ( website: <https://se-digital.net/connect> )

Shizen Connect is an aggregation energy management system that collectively controls energy resources such as renewable energy power generation, storage batteries, EVs, and EQs. 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. It is also vendor-free, allowing energy resources to be chosen freely, regardless of the manufacturer.

<For inquiries regarding this press release>

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