

Press Release

June 22, 2020
Shizen Energy Inc.

Shizen Energy Launches “Minimum Grid” Service Combining Solar Power Generation System, Storage Batteries, and Energy Management System -First usage case at care facility, delivering both disaster preparedness and cost savings-

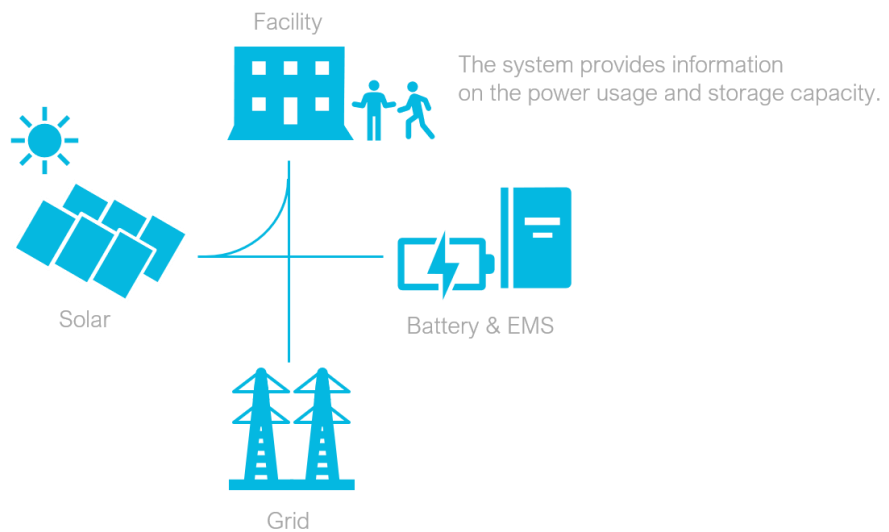
Shizen Energy Inc. (“Shizen Energy”) has announced the official launch of its “Minimum Grid” service which combines solar panels, storage batteries, and Energy Management System (EMS). The first usage case for the service began with installation of equipment at a care facility in the city of Miyakonojo in Miyazaki Prefecture. Service was launched in May 2020, and handover was completed on June 10.

Minimum Grid is a solar power generation system offered by Shizen Energy which combines solar panels, storage batteries, and an Energy Management System (EMS). The system offers power self-sufficiency on clear, sunny days, thus reducing (minimizing) the amount of time relying on supply from power lines and large-scale power plants such as nuclear or thermal power plants. During normal usage times, Minimum Grid lowers cost by actively drawing power from the storage batteries at peak hours and times of day with higher electricity prices (peak-cut). During power outages it functions as an independent energy source that supplies power. In addition to raising the disaster preparedness level of individual facilities, the system also has the potential to serve as an energy source in local communities in case of disasters. Minimum Grid delivers the full benefits of its combination of solar panels, storage batteries, and EMS, while also ensuring stable power usage through the purchase of power through normal power lines when cloudy weather persists and when using large volumes of power.

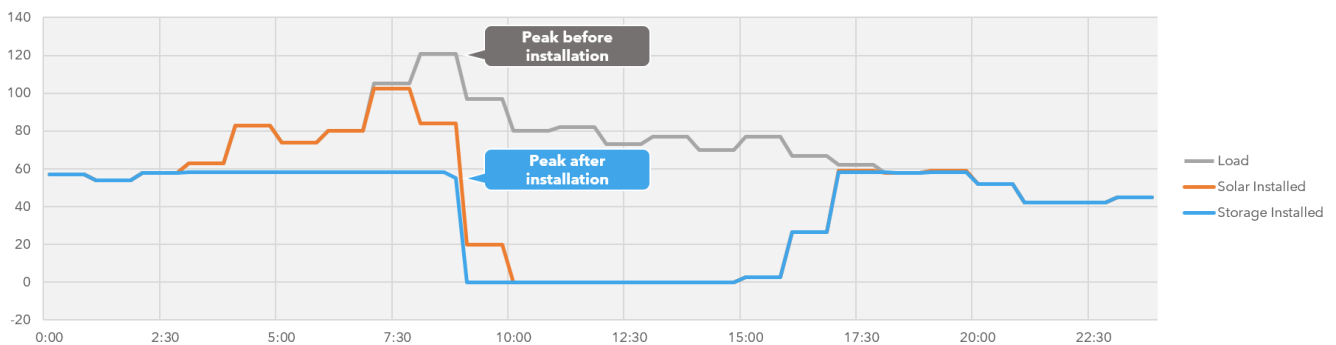
Shizen Energy is also making it easier for facilities to get started with Minimum Grid by offering two types of formats: [1] self-ownership by users through use of subsidies and other funds, and [2] third-party ownership and power purchase agreement (TPO-PPA) model (*1) which fully eliminates all startup costs.

As the first usage case of the Minimum Grid, Shizen Energy installed solar power generation equipment (200 kWp) together with Tesla Powerpack (58 kw output /232 kWh capacity) industrial use storage batteries and an EMS at a special care facility for the elderly called Chouyuen (the “Facility”) in

the city of Miyakonojo, Miyazaki Prefecture. The Facility suffered a multiple-day power outage due to Typhoon Talim in 2017. As a result of this experience, Facility management sought to gain the ability to maintain constant power supply, air conditioning, and care equipment for the health of its residents even in extended power outages. This installation of the Minimum Grid enables the Facility to maintain usage of absolutely essential equipment such as air conditioning and heating in the summer and winter for at least two days in case of an emergency, or even longer if there are multiple consecutive sunny days. Since installation, improved energy efficiency at the Facility has lowered its electric bills to roughly half those of similarly sized facilities, with even more potential savings expected through reduced purchases of power.



Overall image of “minimum grid”: Priority is given to the use of electricity from solar panels and storage batteries. In case of power shortage, electricity from power lines will be used.



Peak-cut illustration: Prioritize use of power charged in storage batteries during high (peak) power usage hours, in evenings and at night, while reducing purchases of power from power lines.

Shizen Energy defines “We take action for the blue planet” as its Purpose, aiming to facilitate the use of safe and sustainable energy through the establishment of renewable energy power plants worldwide, which serves its goal to allow more people around the world to enjoy happy lives. Through the development, construction, operations, and maintenance of renewable energy power plants that are both high in quality as well as rooted in the local community, Shizen Energy will continue to accelerate towards the realization of a “100% renewable-powered planet.”

■ Project Overview

Rated output of solar power generation equipment	200 kWp
Storage battery output/capacity	58 kW / 232 kWh (Powerpack industrial use storage battery by Tesla)
Name and location of customer facility	Chouyuen, belonging to the Kanjikai Social Welfare Corporation (Takano-cho, Miyakonojo, Miyazaki Prefecture)
Completed	June 10, 2020



Chouyuen care facility



Installed Tesla Powerpack storage batteries (Shizen Energy is one of Powerpack Certified Installer for its industrial use storage batteries by Tesla.)

[Reference]

*1 [2] When using the third-party ownership and power purchase agreement (TPO-PPA) model, the power company (Shizen Energy) covers the initial investment for equipment installation and sells power to the consumer (the power user, such as the owner of the facility).

*2 These simulated values are for reference only, assuming specific conditions in the Facility.

【About Shizen Energy Inc.】

Founded in June 2011 with the mission of “We take action for the blue planet.”, Shizen Energy contributes to the generation of approximately 1 gigawatt (as of the end of December 2019) worth of renewable energy across Japan. It is engaged in all services required for the installation and operation of solar, wind, small hydroelectric, and other renewable energy power plants, such as development, EPC (engineering, procurement, construction), O&M (operation and maintenance), asset management and retail electricity market. The company has begun the constructions of the photovoltaic power plants around the world since 2018 starting from Asia and South American region such as Indonesia and Brazil.

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