

**Virtual Power Plant Construction and Demonstration Project  
Selected for Fiscal 2016 METI Subsidy:  
Commencement of Development and Demonstration of  
Integrated Control of Storage Batteries**

September 12, 2016

ELIY Power Co., Ltd.  
Daiwa House Industry Co., Ltd.  
Daiwa Lease Co., Ltd.  
Eneserve Corporation  
Takenaka Corporation

ELIY Power Co., Ltd. (Head Office: Shinagawa-ku, Tokyo, Japan; President: Hiroichi Yoshida), Daiwa House Industry Co., Ltd. (Head Office: Osaka, Japan; President and COO: Naotake Ohno), Daiwa Lease Co., Ltd. (Head Office: Osaka, Japan; President Shunsaku Morita), Eneserve Corporation (Head Office: Otsu, Shiga, Japan; President: Masaaki Matsuo), and Takenaka Corporation (Head Office: Osaka, Japan, President and COO: Masahiro Miyashita) announced that they have applied to receive a subsidy for virtual power plant construction expenses for fiscal year 2016 (for a virtual power plant construction and demonstration project), and further announced that their project has been selected.

ELIY Power will aggregate storage battery resources as part of the virtual power plant project chiefly operated by Kansai Electric Power Co., Inc. The aim of this project is to demonstrate the integrated management and control of storage batteries installed at participating companies in a dispersed form.

**1. Overview of the Virtual Power Plant (VPP) Demonstration Project**

Storage batteries for home use and industrial use are more now in the stage of becoming more widespread, such as for the application for disaster measures, energy peak shifts and peak cuts, self- consumption of electric power, and other purposes. With the expansion of renewable energy and the introduction of the feed-in tariff system, storage batteries are effective for optimizing the electric power demand-supply balance. The VPP aims to construct a structure that will function if it is a single power plant (virtual power generator) with the integrated control of supply and consumption of electricity utilizing IoT technology as well as storage batteries. This will enable the power grid to better coordinate the demand and supply, and pave the way for the introduction of more power sources based on renewable energy. It will also generate new extra value, such as application for Negawatt power transactions with Demand response.

## 2. Cloud System that Provides Integrated Control of Storage Batteries at Different Locations with Different Users

Different types of storage batteries—namely those for home use, those for large-sized industrial use, and portable types—will be installed in a dispersed form and placed under integrated control in Osaka, Hyogo, Shiga, Kanagawa, and Tokyo. In the demonstration trial in this project, a cloud system will be used to conduct the integrated management and control of total capacity, output, and other factors related to multiple lithium-ion batteries installed at seven different locations for different purposes such as for the use in homes, commercial facilities, offices, and building equipment.

## 3. New Uses of Storage Batteries in VPP

(1) Discharge from storage batteries when the electric power supply gets tight

Storage batteries will supply electricity for self-consumption when the power supply is tight to reduce the burden on the grid.

In the future, reverse power flow from storage batteries will be performed to assist the power grid.

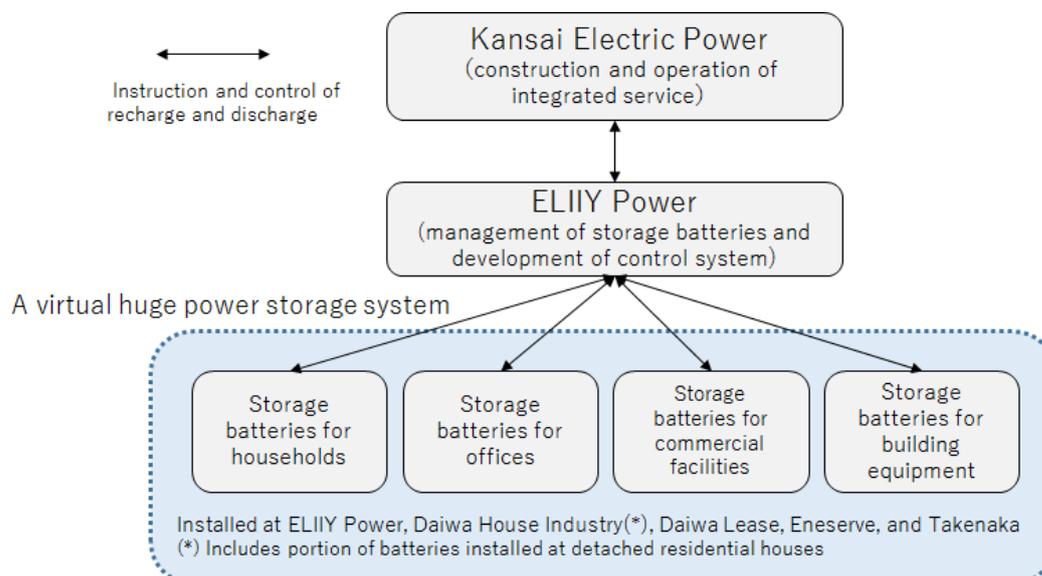
(2) Recharging with the storage batteries when there is a surplus of electric power

When there is a surplus in the power supply, the storage batteries will serve as the destination of the surplus power and store electricity, which ensures that renewable energy is effectively stored/used and not wasted.

In addition, controlling the recharging and discharging of storage batteries is expected to pave the way for various new services.

## 4. Schematic of the Structure for Conducting the Demonstration Project, Installation Locations, and Purposes

[Schematic of the Implementation Structure]



[Overview of Installation Locations of Storage Batteries for Demonstration Trial]

- ELIY Power Co., Ltd.

Inside the head office in Tokyo and the Kawasaki Office in Kanagawa Prefecture

- Daiwa House Industry Co., Ltd.

Inside the head office in Osaka and detached residential houses owned by an individual in Hyogo Prefecture (tentative)

- Daiwa Lease Co., Ltd.

Inside the *BRANCH Kobe Gakuen Toshi* commercial facilities in Hyogo Prefecture

- Eneserve Corporation

Inside the head office in Shiga Prefecture

- Takenaka Corporation

Inside the head office and the large system on the rooftop of the head office building in Osaka

## 5. Implementation Period

Up until February 28, 2017

## 6. Remarks

The VPP system construction project involving Kansai Electric Power and ELIY Power was adopted at the end of July. This release is intended to serve as a second announcement following notice that the storage battery-related VPP construction and demonstration project, involving ELIY Power, Daiwa House Industry, Daiwa Lease, Eneserve, and Takenaka has been selected for the METI subsidy.

Reference: Participation in Virtual Power Plant Construction and Demonstration Project (release from Kansai Electric Power Co., Inc.)

[http://www.kepco.co.jp/corporate/pr/2016/0728\\_3j.html](http://www.kepco.co.jp/corporate/pr/2016/0728_3j.html)

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