

## “Demonstration Project of KANSAI EPCO’s Virtual Power Plant (tentative)”

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### **Abstract**

Bundling end-use devices scattered across power grids through the IoT (Internet of Things), will create one “virtual” power plant, where demand and supply on the grid can be more effectively balanced by controlling demand. Enhancing the system for controlling demand will make it easier to accommodate renewable energy sources in the power grid.

KANSAI applied and started VPP demonstration project funded by Japanese Government in 2016. KANSAI has demonstrated VPP for 2 years.

Aggregators will become to be able to provide services to retailers, grid system operators, renewable energy generators and consumers & communities by controlling end-use devices and adjusting for increase and decrease in electricity demand remotely in the future.

The Virtual Power Plant is designed to control the resources such as Battery, Electric Vehicle (EV) and Heat Pump Heat Warmer. Under the experimental project, some of these resources are operated through IOT, as per the monitoring and controlling systems established by the participating companies. Expanding the scale and range of resources to be controlled by the Virtual Power Plant will also be considered in the following step of the project.