

For Immediate Release

IIJ to Participate in “Virtual Power Plant (VPP)” Project of Kansai Electric Power

--To start verification testing of the effects of the reduction of data center operating costs through demand response (DR) using storage batteries and on-site solar power generation at Shiroy Data Center Campus--

TOKYO- July 28, 2022 - Internet Initiative Japan Inc. (TSE Prime: 3774), one of Japan's leading Internet access and comprehensive network solutions providers, today announced that it will participate in the “Virtual Power Plant (VPP)^(*1)” project with Kansai Electric Power as the aggregator by using storage batteries for BCP at “Shiroy Data Center Campus” (Shiroy City, Chiba Prefecture; hereinafter referred to as Shiroy DCC), a data center operated since May 2019. In demand response (DR)^(*2), which is positioned as one of the methods to control the electric power supply and demand of VPP, IIJ aims to reduce data center operating costs by responding to the requests for controlling power use with the utilization of the remaining power of storage batteries and on-site solar power generation and receiving remuneration from the aggregator. IIJ will conduct a test of effectiveness from July 2022, and start actual supply and demand in the capacity market^(*3) in FY2024.

(*1) Virtual Power Plant (VPP): A system that makes power-supply facilities that are regionally dispersed, such as storage batteries and small-scale power generation facilities owned by companies and local governments, function as a single power plant with integrated control by a business operator called the aggregator.

(*2) Demand Response (DR): To control the use of power by consumers through methods such as “setting electricity fee by time zone” and “paying consumers for avoiding use during peak hours” to control the supply and demand balance of electricity.

(*3) Capacity market: A market in which “future supply capacity” is transacted. It realizes stable power supply by securing the supply capacity (power generation) necessary in the future in advance.

Background

Over 120 countries and regions across the globe have expressed their intent to achieve carbon neutrality by 2050, and the Japanese government also announced the green growth strategy, which sets the targets in each industrial field, in December 2020. In the strategy, the achievement of carbon neutrality by 2040 is set as the target for data centers, and IIJ is also promoting various energy-saving measures, such as air conditioning based on the cooling system using outside air as well as AI-controlled air conditioning, towards the early achievement of carbon neutrality, by establishing targets for greenhouse gas reduction efforts at its own data centers.

Efforts for improving the efficiency of energy use and reducing operating costs

At Shiroy DCC, IIJ utilized lithium-ion storage batteries for BCP to level the electric power for air-conditioning during summer as one of the measures for improving the efficiency of energy use, and measured the peak shaving effect of 10.8% reduction in the maximum power in summer in 2020^(*4).

(*4) Material announced on December 17, 2020: “Electricity Control Validation Results for the Shiroy Data Center”
<https://www.ij.ad.jp/en/news/pressrelease/2020/1217.html>

On the other hand, in the electric power industry, the establishment of new energy supply systems, such as VPPs, which implement remote and integrated control by aggregating regionally dispersed management resources, and servitization are in progress, aiming to break dependence on conventional large-scale power generation facilities against the backdrop of the sophistication of energy management technology using IoT.

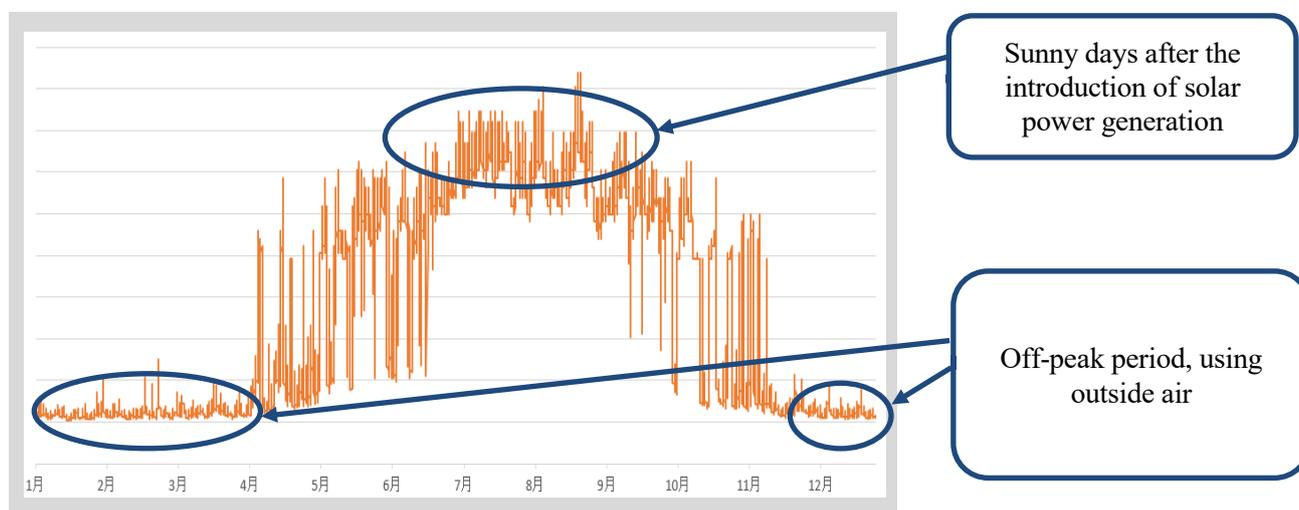
Given such background, IIJ has decided to participate in the VPP project with Kansai Electric Power as the aggregator utilizing the storage capacity in winter with a small amount of peak power and the storage capacity in summer with a large amount of power supplied from solar power generation facilities by using lithium-ion storage batteries for BCP installed at Shiroy DCC and on-site solar power generation scheduled to be introduced in December 2022, with an aim to further improve the efficiency of power use and reduce operating costs.

With the participation in the market, IIJ aims to collect approximately 40% of the investment costs of storage batteries through the peak shaving effect of received power that has already been verified and the DR fees over the medium to long term, while contributing to the stability of the power market.

Overview of participation in capacity market

Aggregator	The Kansai Electric Power Co., Inc.
Period	July 2022 Test of effectiveness April 2024 Start of actual demand
Supply capacity	100kW * Calculated by combining the remaining power of storage batteries in seasons other than summer when peak shaving is not necessary and the power generated through on-site power generation. 100kW of power is supplied to the capacity market per year.
Remarks	Scheduled to participate also in the public bidding for adjustable power in FY2023 (selected “power source I” level which is the participation requirement capable of handling in data center operation (reaction time, duration and command interval are all three hours))

Change in Annual Power Consumption of Air-Conditioning Facilities at Shiroy DCC



IIJ will continue to promote effective energy use at data centers, which consume a large amount of electric power, and provide stable infrastructure while implementing technological initiatives as a model of data centers that solves social issues.

<Reference Information>

Targets for greenhouse gas reduction at IIJ's own data centers

Measure	Target
Use of renewable energy	Increase the renewable energy usage rate of data centers in FY2030 to 85% (scope of greenhouse gas emission by IIJ)
Improvement of energy efficiency	Keep the PUE (Power Usage Effectiveness: Total data center facility energy usage divided by IT equipment energy usage) of the data center at or below the industry's highest level until FY2030 through continuous technological innovation

Details: <https://www.iij.ad.jp/en/ir/integrated-report/tcf/>

About IIJ

Founded in 1992, IIJ is one of Japan's leading Internet-access and comprehensive network solutions providers. IIJ and its group companies provide total network solutions that mainly cater to high-end corporate customers. IIJ's services include high-quality Internet connectivity services, systems integration, cloud computing services, security services and mobile services. Moreover, IIJ has built one of the largest Internet backbone networks in Japan that is connected to the United States, the United Kingdom and Asia. IIJ was listed on the Prime Market of the Tokyo Stock Exchange in 2022. For more information about IIJ, visit the official website: <https://www.iij.ad.jp/en/>.

The statements within this release contain forward-looking statements about our future plans that involve risk and uncertainty. These statements may differ materially from actual future events or results.

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