

## **Recent trends on installation batteries in real systems of each country to realize low carbon society.**

**Joji Kawano**

**Senior Research Associate, Research Department,  
Japan Electric Power Information Center  
Tokyo, Japan**

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### **Abstract**

Energy storage such as battery is a key technology that expands the degree of freedom of the use of electric power, and is widely noticed not only to electric utilities but also to various service fields.

Under these circumstances, electric utilities are conducting pilot projects on the use of storage batteries to solve each unique problem. As an example, electric utilities in each country are considering the use of storage batteries as a measure for expanding the installation amount of the power source that outputs vary depending on weather conditions. On the other hand, in the United States and other countries, commercial installation of batteries in real systems is underway.

In this report, we report on trends of each country actively promoting the installation of storage batteries including Japan and the United States. As a way to utilize the storage battery as an electric power company, there are countermeasures to peak shift, rapid increase in demand, expansion of the installation amount of variable renewable energies, such as PV or wind. However, since the storage batteries themselves are expensive under the present circumstances, most of them are capable of exhibiting usefulness even with a small capacity.

Also, as a close-up trend in Japan, utilities verified the implementation of sustainable electric power supply suppressed running cost by combining renewable power supply and storage battery as a substitute for conventional power generation using an internal combustion engine in isolated islands. As specific concrete efforts, we are going to introduce TEPCO's Niijima project and Chugoku EPCO's Oki project.

In addition to these trends in Japan, we will report on advanced initiatives of other countries