TOHOKU ELECTRIC POWER CO., INC.

March 29, 2018

"Virtual Power Plant Verification Project" with the use of new information technology

Tohoku EPCO has just commenced a "Virtual Power Plant (VPP) Verification Project" with an aim to take an anticipatory approach to changes in the business environment resulting from the advancement of new information technology, such as Internet of Things and artificial intelligence (AI), improve further our customer services, and develop new business models which lead to the expansion of our business domains in the future.

A VPP is a system that aggregates several types of power sources to function as a power station. It integrates distributed energy resources (DER) including power generating facilities, storage batteries, and electric vehicles, whose owners are local communities, companies and general households, and controls remotely those DER with new information technology.

In this project, we will integrate DER into the energy resources of our VPP to verify whether it can be useful as a means of supply-demand control.

We also plan to efficiently use photovoltaic facilities and storage batteries installed at public facilities to enhance disaster preparedness in local communities; in addition, we will verify vehicle-to-grid (V2G) technology, in which storage batteries of electric cars are connected to power grids to charge and discharge.

We will also be engaged in the development of energy management services which help customers' energy-saving and cost-reduction through the effective use of customers' facilities and equipment.

We are involved in this project in cooperation with business partners, including companies, colleges, and local governments, which is designed to last for three years from 2018 to 2020. We will harness findings and know-how learned from this project to offer new services.

We will continue pursuing the use of new information technology to meet the strong expectations of our customers and local communities.