## The 14th IERE General Meeting and the IERE-EPRI North American Forum **Abstract Format**

## **TEPCO's Effort to Establish a Smart Grid**

Shinya SUGITA
Researcher, Engineering R&D Department, Tokyo Electric Power Company
Tokyo, Japan

**Keywords**: Field Demonstration, Renewable Energy, Demand and Supply Operation, Solar Power, Wind power, Battery

## **Abstract**

One of Tokyo Electric Power Company's (TEPCO) goals is to lead the future by contributing to a safe and comfortable smart society by helping customers most efficiently use energy. TEPCO has power supply technologies along with, one stop, comprehensive customer services, both of which have been developed throughout the company's history. This utility is making efforts to realize that Smart Grid is flexible, efficient, and disaster resistant, all of which contribute to a smarter society.

TEPCO is promoting the following objectives:

- Upgrading distribution networks by utilizing IT
- Widening of power system operations

Recently, TEPCO has started a field demonstration to develop new power systems that can accommodate a large percentage of renewable energies. The following three components will be factored into the field demonstration.

- Accurate forecasting and continuous monitoring of current output from renewable energies
- Control and mitigation of output fluctuations of renewable energies, including direct control of wind machines
- Utilizing power generators and batteries to effectively balance the supply and demand of power

In the session, the field demonstration will be more fully explained.