Historically, Furukawa Electric (FEC) group has been involved in building the social infrastructure around the electric power transmission and telecommunications with high opportunities on both the hardware and the software sides.

FEC group significantly contributes to the development of the Smart Grid by promoting advanced solutions such as superconducting power cables and semiconductor devices that are drastically reducing transmission loss and storage batteries (secondary batteries) contributing to a stable supply of the new energy.

A three-year medium-term plan, from 2010 to 2012, called “New Frontier 2012” to ensure the growth in the new business and the new market was created and the following measures were implemented as real activities.

The launch of the organization:
2010 August : Smart Grid Business Development Department
October : Power & System Laboratories
2012 February : The acquisition of “SuperPower” a superconducting wire manufacturer
March : Offshore Wind Project Team
April : HTS Project Team (High Temperature Superconductor Project Team)

The business will be widely developed as an achievement of these measures.

In the wake of the Great East Japan Earthquake that happened in March 11th, 2011, Energy issue especially the Electric power becomes a concern. Now, Stable power supply and effective use of power by demand leveling in place and time are the most important issue.

Capabilities of FEC group in solving the issue is presented in this publication dedicated as “Smart Grid special issue”.

Papers for “Long Life Battery for Cycle Service”, “Power storage system”, “High-temperature superconductor” and “Transmission system for Offshore Wind Power generation”; and introduction of new products such as “High-performance cable for Solar Power generation and EV”, “Thermal Management Technology that is a key technology of longer-life and higher-efficiency of equipments” and “High-reliability electrical board for next-generation vehicles that are further computerized”, are all included.

Thank you in advance for your help and your support.

* Fukunaga Takao*
General Manager, Power & System Laboratories Research & Development Division

Products and technologies that FEC group provides to Smart Grid.