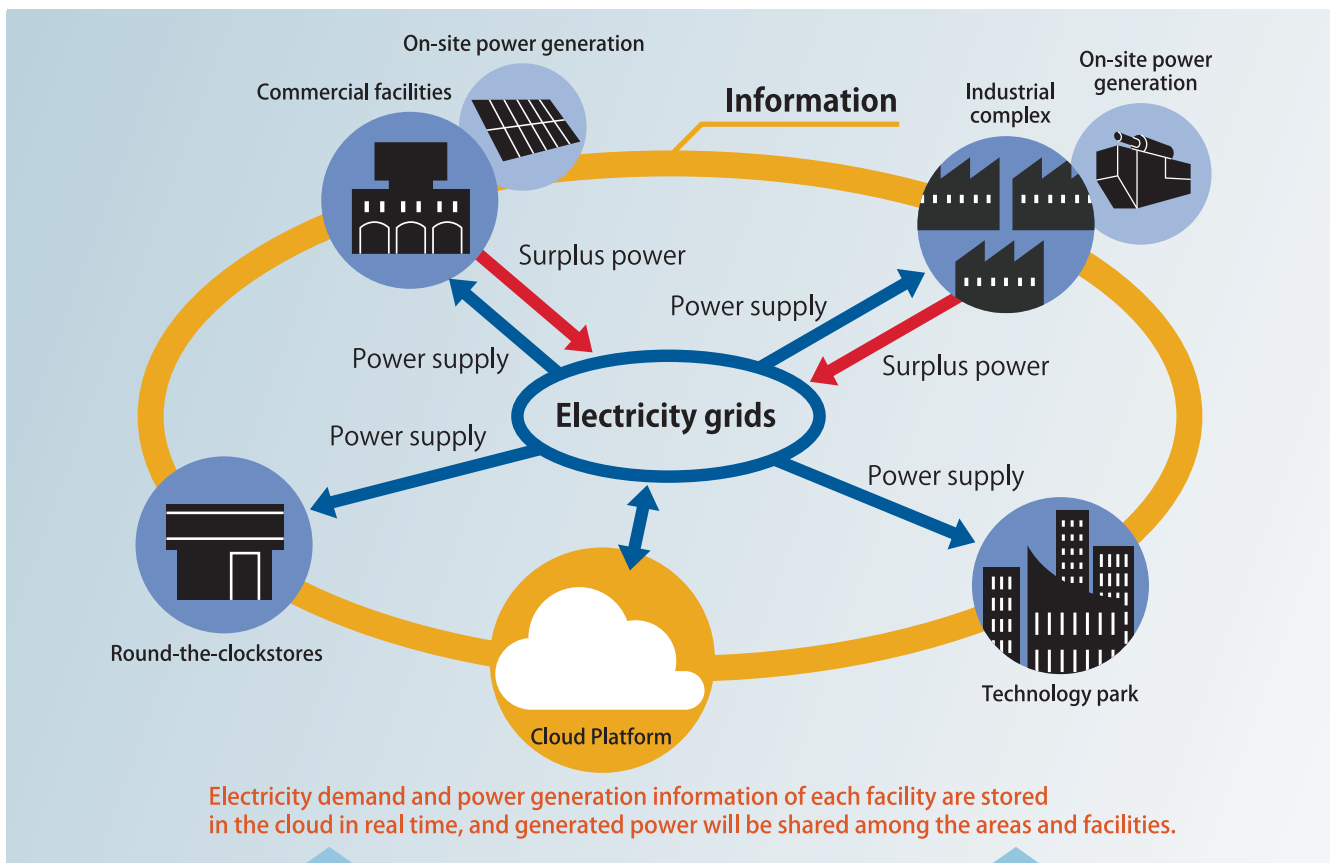


Urban Issues

In many cities in emerging economies, following a wave of rapid industrialization, power consumption and the cost of electricity have increased in recent years. Therefore, it is necessary to create efficient power supply and energy consumption mechanisms.

Energy Management System at Community Level

Recently, technological innovations and pilot application are being conducted to build energy management systems (EMS) at community level and facilities. EMS is a system that aims at improving the efficiency of electrical supply and power saving through provision of power usage tracking capabilities, and a comprehensive management system for power generating equipment. Demonstration projects are also being conducted in Japan to develop new power grid technologies called "digital grid", using internet architecture.



Technologies / Products / Services of Private Firms in Yokohama and YSCP member firms

Target	Technologies/Products/Services
Renewable energy	PV power system, biomass power generation, etc.
Building (BEMS)	Clustered BEMS, smart BEMS, negawatt aggregation, etc.
Factory (FEMS)	Smart FEMS, Redox flow (RF) battery, co-generation system(CGS), etc.
Residence (HEMS)	HEMS(for demand response and visualization), forecasting of PV power generation, smart meters, etc.
Community (CEMS)	Demand response system, customer registration function, incentive calculation, SCADA batteries, etc.
Common technology	Cloud technology, digital grid, wireless communications, batteries, etc.

Expertise of the City of Yokohama

- Yokohama Smart City Project (YSCP)
The City of Yokohama and 34 companies including energy-related companies, electric manufacturers, and construction companies collaborated to introduce systems for optimizing the balance of energy supply and demand in urban areas. The Yokohama Smart Business Association (YSBA) was established to realize energy efficient city based on YSCP.

